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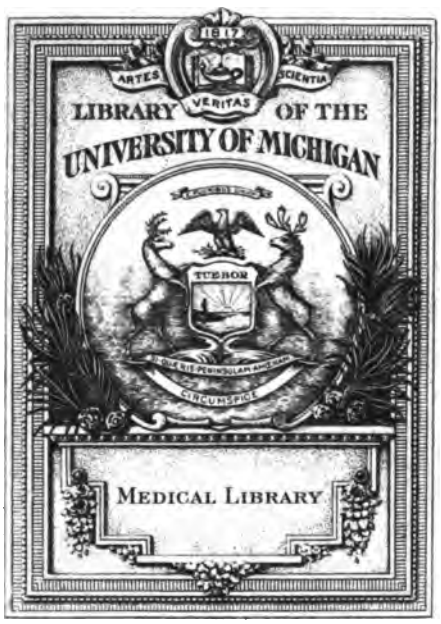

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ORIGINAL LECTURES.

CLINICAL LECTURES
ON
THE DISEASES OF WOMEN,

By J. Y. SIMPSON, M.D., F.R.S.E.,
Professor of Medicine and Midwifery in the University of Edinburgh.

ON ACUPRESSURE.

GENTLEMEN,—Acupressure—or the artificial arrestment of the hæmorrhage from cut or wounded arteries by the pressure of a needle passed across their mouths or tubes—is a subject that scarcely comes, it may be argued, within the scope of clinical lectures on female diseases. Some of this class of diseases, however, are purely Surgical in their character and cure. The very first idea of acupressure sprang from the study of one of these female Surgical diseases,—viz., vesico-vaginal fistula. And again, the first operations in which I employed it were cases belonging to the same department, namely, cases of excision of the mamma. In speaking, however, of acupressure in the following observations, I shall not limit myself to its application to Obstetric Surgery, but shall rather discuss its application to General Surgery. The fact that acupressure is as yet imperfectly understood, and little, or not at all, described in any of our Surgical works or lectures, may plead, perhaps, as an additional apology for my attempting to impress your young and unprejudiced minds with its relative advantages. Were it necessary, I might plead further the paramount

Importance of the Doctrine of Surgical Hæmorrhage and Surgical Hæmostatics.

Hæmorrhage forms a subject of the very highest Surgical moment, because it constitutes a complication in almost all varieties of severe Surgical operations—in all in which the knife is employed. Hence, any question of moment connected with it is a question which is at once connected with nearly the whole range of Operative Surgery. Supposed improvements in individual operations, for example, as in the extent, or the size, or the shape of the incisions or flaps in any special amputation, affect that one special amputation only, and have little or no bearing on General Surgery. Any leading question, on the contrary, connected with hæmorrhage involves its application, not to any one special amputation, but to all amputations and to all other operations in which the Surgeon uses cutting instruments. "Indeed," as was remarked half a century ago by my beloved and sagacious master, Professor Thomson, "the suppression of hæmorrhage and the reunion of divided surfaces are in every wound and in every operation *the* first and the ultimate object of the Surgeon's attention."—(*Lectures on Inflammation*, p. 249.)

IMPEDIMENTS TO THE PRIMARY UNION OF WOUNDS.

I take it for granted that it is the object and desire of every philosophic English Surgeon to heal, when possible, all his wounds by the "first intention," as it is called, or by primary adhesion. In the olden times of Surgery, when the hæmorrhages accompanying operations were arrested only by cauteries and caustics, all thoughts of effecting union by the first intention were of course idle and vain; for the existence on the surface of the wounds of the resulting dead sloughs and burned crusts totally prevented all primary adhesion. But even after the deligation of bleeding arteries became general, it was with difficulty that the idea of primary union, broached originally by Alanson, and other English Surgeons, in regard to amputation wounds, gradually and slowly gained ground. Led away by the high authority of Pelletan, Larrey, and others, some foreign Surgeons still methodically reject the attempt in many wounds, possibly because, from their peculiar mode of operating, and especially of dressing wounds, they have found their failures so constant as to make them despair of success. But when wounds, instead of healing by the first intention, heal by granulation and suppuration, or by the "second intention," they close slowly and painfully, with more or less prolonged discharges and suffering to the patient, and often with the loss of health, and sometimes of life. The regulation of the closure of wounds in Operative Surgery by the first intention or by the second intention occasionally depends upon the state of constitutional health of the patient. It always, however, depends also more or less, and generally almost entirely, upon the local character and circumstances of the wound. And the question before us is this—Is Surgery as yet prepared, or yet able, to take an additional step forwards, with the hope of rendering its management of wounds such that their primary union should prove much more general than heretofore? If so, the Practitioner might, when successful, abridge the cure of amputation wounds, for example, from long weeks, as it were, to almost days only; and he would doubtless add very greatly, in doing so, alike to the happiness as well as to the safety of his patients.

Now, there are some wounds that heal with nearly perfect certainty by primary union, although from certain correlative circumstances they seem not to be very favourably situated for such a result. Thus, the raw edges of a vesico-vaginal fistula almost always cohere, despite the constant contact of urine; the lips of a ruptured and revivified perineum, despite the irritation of the intestinal contents; and the wound in harelip, despite the presence of the saliva. The wounds in all "Plastic Surgery" are expected to unite by primary adhesion. Why is it that these classes of wounds commonly heal throughout by the first intention, and wounds in General Surgery rarely do so? For, confessedly, the complete and entire primary union of a wound such as is left by the removal of a limb, mamma, or tumour, is very rarely seen in general Surgical practice. I believe that the answer is this. In the obstetric operations named, and in Plastic Surgery, no ligatures of the arteries are used. On the contrary, in the wounds of General Surgery which fail to cohere by primary union, ligatures are used in greater or less number to arrest the arterial hæmorrhage. It is the absence or the presence of these ligatures tied around the ends of the bleeding arteries that makes the marked and distinctive difference between wounds likely to heal and wounds not likely to heal by the first intention. But there arises the next question,—

Why do the Ligatures interfere with the Primary Adhesion of Wounds?

Arterial ligatures prevent the primary union of the lips of wounds in two ways—

1st. Each ligature acts itself as a mechanical foreign body placed between the opposed sides of the wound; and when it is composed of silk or other organic material, it rapidly imbibes animal fluids into its substance, which dead fluids speedily decompose and render the threads morbidly poisonous and irritant agents to the contiguous lining tissues. In other words, each arterial ligature is formed speedily into a small or miniature seton; and it produces, like a seton, suppuration along its tract. Suppuration, however, and all the higher grades of inflammation, are locally antagonistic of adhesive inflammation or primary union; and they tend to impede and subvert those processes of cohesion and repair which constitute union by the first intention. But—

2ndly. Ligatures counteract the simple adhesion and healing of wounds in another and far more marked mode. They inevitably set up at all the ligatured points and ends of the tied arteries themselves, stages of inflammation higher than the adhesive—the stages, namely, of ulceration, suppuration, and mortification. For at the point of deligation every ligatured artery has its two inner coats mechanically torn through by the thread, and its outer coat strangulated by it; and before the separation of the ligature can be effected, it requires to cut through the strangulated tube by a process of ulceration or molecular disintegration and gangrene. Further, there are set up, as a consequence, in the immediate vicinity, the processes of local disjunctive inflammation and suppuration; and the part of the arterial tube embraced in the noose of the ligature constitutes a small, dead, decomposing *slough*, as well as the isolated and strangled end of the artery below the ligature, except in instances in which this isolated end is preserved from death by adhesion to the contiguous surfaces. If two, four, or six arteries, therefore, are tied in a Surgical wound, then, in consequence of this deligation, there exist two, four, or six points of destructive *ulceration* and *sloughing* in the depths and walls of that wound. And, of course, complete primary adhesion of its sides becomes an improbability, or rather an impossibility.

All our best Surgical pathologists acknowledge this ulceration and sloughing as the inevitable and invariable result of the ligature of arteries. Generally the dead tissue is thrown off in small slough masses; to a considerable extent, also, it seems to be melted down and discharged in the form of disintegrated ulceration molecules. We tie and strangulate the

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necks of piles and polypi to make them ulcerate and slough off, just as the tied and strangulated ends of arteries do. Mr. John Bell, when treating of the effects of the ligature of the artery, uses this very expression:—The part of the artery "below the ligature is (says he) destroyed like a polypus, fades and dyes; and it is the fading of the lower part thus *mortified* that allows the noose of the ligature to slip off." Or, to quote the words of Dr. Wise (a very careful observer, and a gentleman who has specially attended to this department of pathology), after deligation of an artery—"an *ulceration* of the compressed part takes place about the fifth or sixth day, and the ligature is slowly discharged about the twelfth or fourteenth day, being thrown off by a *gangrenous* process, together with a small portion of the vessel which had been compressed by the ligature." "Every Surgeon knows," observes Mr. Spencer Wells, "that the part of the artery beyond the ligature *must be killed* by it, and that a piece of *sloughy* tissue cannot do any good when confined among the living tissues of the body."—(*Medical Times and Gazette*, May, 1860.) I might, if it were necessary, cite for you Guthrie, Cross, Brodie, Hodgson, Erichsen, Pécot, Velpeau, Nélaton, and others, as all describing the portion of every artery strangled and isolated by the ligature as killed, and requiring to *slough* off. Let me, for brevity's sake, however, content myself with adducing the statements on this point given by the authors of three of the latest and best works on Systematic Surgery, published respectively in America, France, and England:—"That portion of the artery (I quote the words of Professor Gross, of Philadelphia) immediately embraced by the ligature *mortifies*, and comes away in the form of a *slough*."—("System of Surgery," 1862, vol. i., p. 700). "The portion of artery," remarks M. Chassaignac, of Paris, "embraced by the ligature *necessarily mortifies* a little sooner or a little later, according to the degree of constriction put upon it; and it is only in consequence of an eliminative process, similar to that which in gangrene separates dead from living parts, that it is detached from the tissues which surround it."—("Traité des Opérations Chirurgicales," 1861, tom. i., p. 233). "The noose (of the ligature) and its contained *slough* are," remarks Professor Miller, "to all intents and purposes, foreign matter; as such their presence will be resented by the surrounding living textures; and as such they will be extruded by suppuration."—("System of Surgery," 1863, p. 224.)

If any Surgeon, desirous, as all ours are, of producing primary union, had the hardihood to propose, as a new mode of treating wounds (such as those produced by amputation), that there should be placed between their flaps a series of four or five small seton-threads, and that each individual seton-thread should, for a week or two, be firmly fixed and anchored down in the depths of the wound to a corresponding number of small masses of strangulated, dead, decomposing, sloughing tissue—would not such a suggestion, I say, be met by the profession with perfect amazement, and denounced as ridiculous and discreditable, or something worse? Yet, in reality, this, as we have just seen, is the principle followed at the present hour by our Surgical brethren when they staunch the hæmorrhages which follow their knife by tying silken ligatures around the drawn-out and isolated ends of the bleeding arteries. Is it a great marvel that primary union so seldom occurs in wounds so managed? Would it not be a still greater marvel if union by the first intention followed oftener under such adverse circumstances?

We cannot hope, I believe, for any great and decided improvement in the treatment of wounds, and we cannot expect primary union to be frequent in them, till we have attained some means of arresting hæmorrhage without strangulating and sloughing the ends of the bleeding arteries. For the accomplishment of this object, other simpler and safer means than acupressure may, and probably will, be discovered; but, in the mean time, it has been found capable of occluding wounded and cut arteries without producing upon them any physical laceration, such as the ligature produces, without strangulating and sloughing their isolated extremities, and without leaving any foreign bodies in the wound after the vessels are occluded. Their use is founded upon the general pathological principle—that, whilst silk and other dead organic ligatures and substances excite irritation, suppuration, &c., when they are buried in the living structures of the body, there is, on the contrary—

A Tolerance of Metallic Bodies by the Living Tissues.

We have ample proof of the truth of this great general law in many kinds of observation, as in the tolerance—sometimes for long years—of bullets, small shot, pins and needles, imbedded in different parts of the body; in the non-irritating character of threads of iron, silver, platinum, &c., when used as Surgical sutures; in the employment by all our best Surgeons of metallic pins or needles in the union of hare-lip; and in the safe retention, during several days, of a metallic needle passed through a fold of the peritoneum itself, in the operations of Wutzer, Rothmund, and others, for the radical cure of hernia. The use of a needle in the cure of hernia and of hare-lip—where the whole aim and the deliberate object of the Surgeon is to secure and establish adhesion and adhesive inflammation—only shows that a needle, when used to close and compress an artery, as in acupressure, is not likely in itself to lead there to any higher stage of inflammation than the adhesive—and consequently will not interfere, when used as a hæmostatic, with the primary union of wounds. At the same time, let me qualify this remark with another:—if a metallic acupressure needle, or a metallic suture thread, be made to press too long and too strongly on any given point of living tissue, that point will ulcerate. But the ulceration, under these circumstances, is not the result of the pressure of the metal needle or thread, as metal; it is not, in acupression for example, the result of the pressure of the needle as a needle; but it is the result of the *pressure* of the needle simply as pressure, morbidly excessive in its amount. And any similar degree of linear pressure, by any other mode whatever, will produce the same ulcerative appearances.

That even very long needles may be borne with perfect impunity embedded for days in the living body, is attested by numerous experiments that were performed on the human body, some forty years ago, by various Surgeons, when acupuncture was more studied and practised than now. "It is a *remarkable* circumstance (observes a writer on this subject) that the acupuncture needles never cause inflammation in their neighbourhood. If they are rudely handled or ruffled by the clothes of the patient, they may produce a little irritation; but, if they are properly secured and protected, they may be left in the body for an *indefinite* length of time without causing any of the effects which usually arise on account of the presence of foreign bodies. In one of M. Cloquet's patients they were left in the temples for eighteen days; and in cases in which needles have been swallowed, they have remained without causing inflammation for a much longer period. It appears probable, from the facts collected on this subject, that metallic bodies of every kind may remain imbedded in the animal tissues without being productive of injury."—(See the *Edinburgh Medical Journal* for 1827, p. 197.)

Effects of Acupressure Needles.

Needles, then, are—as metallic bodies—tolerated by the living structures. To occlude a vessel, they require, as experience has amply shown, to be retained for a few hours, or a few days at most; and further, when passed with this view across the mouth or tube of an artery, they merely place the internal surfaces of the vessel in close contact; without isolating the vessel from its attachments; without lacerating its two internal coats; and without strangulating, ulcerating, and mortifying the constricted portion of the tube, all of which injuries and lesions are, as we have found, inevitably produced when the deligation of arteries is adopted. In thus using against hæmorrhage acupressure needles instead of ligatures, we attempt to bring all bleeding wounds in General Surgery to the condition, as far as possible, of wounds in Plastic Surgery, where union by the first intention is the expected and general result. We secure the bleeding arteries by unirritating metallic needles, and we withdraw them as soon as we can, so as to leave ultimately *no foreign body whatever* in the wound. Ligatures cannot be withdrawn for an indefinite period, or till, after days or even weeks, they have ulcerated and sloughed through the tied vessel. We can at once remove, on the contrary, our acupressure needles always at will, and whenever we deem that they have produced their occluding effect. But I am forestalling some observations; for, before considering how short or long a time the needles should be left in, we have another matter than this to consider first, namely, the—

Apparatus required for Acupressure, and the Methods of applying it.

The instruments required for the employment of acupressure are of the simplest kind. They are chiefly applied in three modes. In the first method, the only instrument required is a long needle (Fig. 1) headed with glass or sealing-

wax to allow of sufficient pressure upon it for its introduction; in the second method, a short common sewing needle (Fig. 4) threaded with iron-wire or with silk; and in the third

FIG. 1.

FIG. 1.—Acupressure Needle. The form first used.

method, the same needle along with a loop of very slender wire thread (Fig. 6) of four or five inches in length. The three chief methods of applying the needles are as follows:—

1*st Method.*—This was the mode which I generally adopted in the first acupressure operations. It usually consists in passing a long needle twice through the flaps or sides of a wound, so as to cross over and compress the bleeding artery or its tube, just in the same way as in fastening a flower in the lapelle of our coat, we cross over and compress the stalk of it with the pin which fixes it, and with this view pass the pin twice through the lapelle. (See Figs. 2 and 3.) The only portion of the needle

FIG. 2.

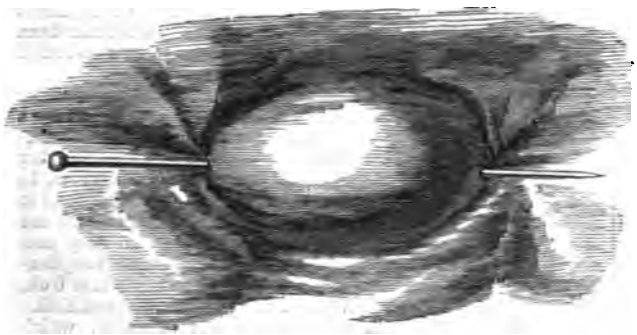

FIG. 2.—Cutaneous surface of a flap, in which an artery is secured by an acupressure needle, according to the first method.

FIG. 3.

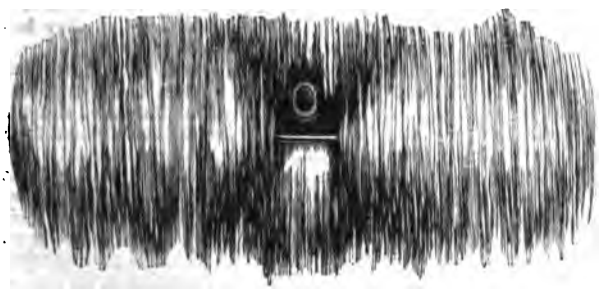

FIG. 3.—Wound surface of the same flap, showing the bridge of the acupressure needle compressing the artery. In this, and the woodcuts Figs. 5 and 7, the open mouth of the artery is represented as further removed from the needle than it perhaps generally is in practice.

which is left exposed internally on the fresh surface of the wound (Fig. 3) is the small middle portion of it, which bridges over and compresses the arterial tube at its bleeding mouth, or a line or two or more on the cardiac side of it. More or less of both extremities of the needle, viz., its head and point, are exposed externally on the cutaneous surface of the side or flap of the wound (Fig. 2). When passing the needle in this method, the Surgeon usually places the point of his left forefinger or of his thumb upon the mouth of the bleeding vessel, and with his right hand he introduces the needle from the cutaneous surface, and passes it right through the whole thickness of the flap till its point projects for a couple of lines or so from the surface of the wound, a little to the right side of the tube of the vessel. Then, by forcibly inclining the head of the needle towards his right, he brings the projecting portion of its point *firmly* down upon the site of the vessel, and, after seeing that it thus quite shuts the artery, he makes it re-enter the flap as near as possible to the left side of the vessel, and pushes on the needle through the flesh till its point comes out again at the cutaneous surface. In this mode we use the cutaneous walls and component substance of the flap as a resisting medium, against which we compress and close the arterial tube. But in some wounds a neighbouring bone or other firm unyielding texture forms the best and readiest point of resistance against which to pin and compress the artery by the acupressure needle. In such cases, the end of the finger at the bleeding point is sometimes necessary to assist the needle in duly pressing it down upon or against the open vessel. In both those modifications of acupressure a thick flap or a vessel situated deeply requires a proportionally longer needle; and the amount of pressure upon the artery is easily regulated and increased, when required, by the acuteness of the angle which the needle makes in its passage over the arterial tube. The degree of compression required to shut an artery by acupressure is generally by no means great, especially if care is taken to pass the needle as near as possible to the arterial tube, and without a layer or layers of elastic tissue intervening between them. This needle can be withdrawn at will, at any hour or time, by pulling at the head of it; which, I have said, is placed externally.

There are some objections to using such long needles in acupressure when they can be avoided. They are liable to be passed so as to compress the included tissues too strongly; they compress, however slightly, an unnecessary extent of tissue; and, being partly external, they are liable to prove unwieldy and incommodious in putting on dressings, etc., to the wound, provided we do use such applications to it.

In the method of acupressure which I have described, the long needles are introduced from the cutaneous surface, and their extremities left out *externally*. In the two other methods, where sewing-needles are used, they are introduced on the raw surface of the wound, and are all situated thus altogether *internally*, or between the lips of the wound.

2nd Method. — A common short sewing-needle (Fig 4), threaded with a short piece of iron-wire for the purpose of afterwards retracting and removing it, is dipped down into the soft textures a little to one side of the vessel, then raised up and bridged over the artery, and then finally dipped down again, and thrust into the soft tissues on the other side of the vessel (Fig. 5). In bridging over the vessel care must be taken

FIG. 4.

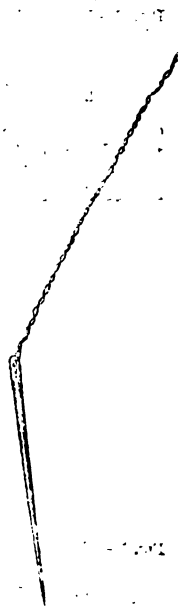

FIG. 4.—A common sewing-needle, threaded with iron-wire, to be used as an acupressure needle.

FIG. 5.

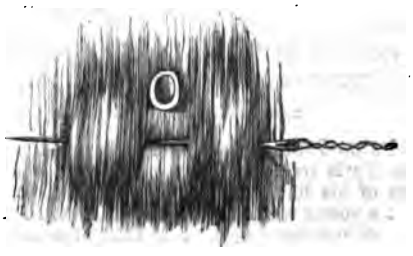

FIG. 5.—Acupressure applied to an artery by means of a common sewing-needle. The second method of acupressure

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Fig. 6.

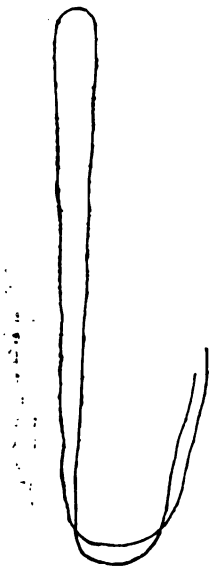

Fig. 6.—Loop of iron wire, to be used for compressing an artery against a common sewing needle, according to the third method.

to press the end of the needle down upon the mouth or tube of the bleeding artery with force sufficient to arrest the hæmorrhage. The end of the finger pushed against the projecting portion of the point's-end of the needle is often required thus to compress and close the vessel adequately, before the tip of it is sent outwards and fixed in the tissues beyond.

3rd Method.—This consists in compressing the vessel between the threaded sewing-needle (Fig. 4) and a duplicature of passive iron thread (Fig. 6). Here, as in the method last related, the cutaneous surface is left intact; but the needle is passed *below*, instead of over or above, the artery. The point of the needle is entered a few lines to one side of the vessel, then passed under or below it, and afterwards pushed on so that the point again emerges a few lines beyond the vessel. The noose or duplicature of wire (Fig. 6) is next thrown over the point of the needle; and, after being carried across the mouth or site of the vessel, and passed around the eye end of the needle, it is drawn sufficiently tight to close the vessel, when it may be fixed by a half-twist or twist around the stem of the needle. A slight half-twist usually fixes a rigid wire-thread sufficiently (Fig. 7). If the operator prefers, he may keep the two threads of the noose open after they bridge across the artery, and *tie* them below or behind the eye end of the needle, in the form of a common single or double knot. But this tie takes much longer time than the twist, and is not more efficient. When

Fig. 7.

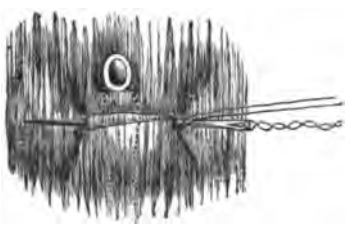

Fig. 7.—The third method of acupressure by means of a common sewing needle and a loop of iron wire.

in either case the operator wishes to remove this simple acupressure apparatus after a period of, say five, twenty, thirty, or more hours, all he has to do is to withdraw the needle by pulling it out, by dragging at the twisted wire with which it is threaded. The noose of wire-thread is thus at once loosened and liberated, and can be withdrawn also. To distinguish easily between the wire-thread passed through the eye of the needle and the duplicature of wire, it is always convenient to mark the former by having it plaited or twisted. (See Fig. 4.)

[The second part of this lecture on Acupressure is in type, and will appear in our number for January 9.]

The Paris Insurance Case.—A great sensation has arisen in Paris by reason of the arrest of a Physician on suspicion of his having poisoned his wife or mistress. She was quite a young woman, and he had insured her life for the large sum of 550,000 francs. She died after the payment of the first premium, and sufficiently suspicious circumstances were present to cause his arrest. It is said that at the autopsy no poison was found. It seems that he is a homœopathic doctor, and also possesses a title of nobility. He only received his doctor's degree in 1854.

COURSE OF

LECTURES

ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D.,

Professor in University College, and Assistant-Physician to University College Hospital.

In beginning a course of lectures on the urine, intended as an aid to the diagnosis and treatment of disease, the first question requiring an immediate answer is—

What is Urine?

Urine is nothing more nor less than a collection of the liquid and solid effete products of the frame, and its composition fluctuates in exact proportion as the processes of life fluctuate.

Consequently, it differs very materially in different species of animals, and even varies with the varying conditions of the same animal.

The state of the urine has, with justice, long been regarded as a key to the condition of the body; and hence we find that the Physicians of antiquity, like those of modern times, sought, in the composition of the urine of their patients, a clue to the nature of the diseases under which they laboured, an index to their prognosis, and a guide to their successful treatment.

It is true that uroscopic charlatanism has, more or less, in all ages, laid human credulity under contribution, and thereby brought discredit upon, and retarded the advance of legitimate science; but this must not deter the honest Practitioner from reaping the advantages which a knowledge of this secretion affords.

An examination of the urine not only enables us to arrive at a correct diagnosis of diseases attacking the urinary organs themselves, but in many cases yields most important information regarding the nature of morbid changes occurring in other and distant parts of the frame. You must not, however, be led away with the idea that the urine is the royal road to knowledge, or you will be doomed to disappointment; nor must you flatter yourselves that its study is an easy one, requiring neither previous preparation nor subsequent application; for on the contrary, in order to make urology bear fruit, you must bring to its cultivation both perseverance and skill.

It is not a little remarkable that this secretion, which inspires most of us with a feeling of aversion, should not only have rendered incalculable service to clinical Medicine, and yielded brilliant discoveries to chemistry, but also solved many of the most obstruse problems in physiology. Notwithstanding all this, it has not done nearly as much as it might have done, nor as it ought to have done; but this is owing to no defect on its side, but in consequence of its votaries having always been too eager to profit by its pathology ere they had mastered the first rudiments of its physiology.

In fact, until within the last year or two, men have been constantly attempting to place, as it were, the pyramid of Medical science on its apex instead of on its base, and the result has naturally been that they reaped little benefit from their labours. It seems, indeed, as if they were only now becoming alive to the all-important fact, that physiology is the only true basis of rational Medicine, and that in direct proportion as they adopt its principles is the success of their labours in advancing the healing art. Such being the views now held by the pioneers of clinical Medicine in all countries, you will readily understand why, before entering on the pathology of the urine, I first try to give you a succinct account of its physiology.

It has been said that urine is nothing more than a collection of the effete products of the frame, and, consequently, that it differs in different species of animals. If we cast our eyes over the whole animal economy, we shall discover that all urines are not necessarily liquid; on the contrary, we shall find that there are many species of animals that pass solid urine; and thus at the very threshold of our inquiry we perceive this secretion naturally dividing itself into two great classes—the *solid* and the *liquid* urines.

Solid Urine.

In all animals devoid of a urinary bladder, and in which the ureters open into the rectum, the urine is solid.

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

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Thus, for example, the urine of serpents is passed in a compact mass, varying, with the size of the animal, from that of a pea to that of an orange. Yet, notwithstanding the peculiar appearance of this specimen of urine from the boa constrictor, it differs from liquid urine in only one particular—the absence of water. By the simple addition of distilled water to it I can produce as perfect a urine as that of the human being; for, solid though it be, it contains all the urinary ingredients,—urea, uric acid, phosphates, etc. Here, for example, are two spatulas, on one of which I place a fragment of serpent's urine, and on the other, some of the solids from evaporated human urine; to each is added a couple of drops of strong nitric acid, and you observe that both effervesce. I now heat them over the flame of the spirit-lamp in order to drive away the excess of acid, and to their yellow-coloured residues add a drop of strong liquor ammonia, when instantly, you perceive, both assume a magnificent purple tint. This colour is due to the presence of purpurate of ammonia, produced by the action of the reagents on the uric acid contained in the urines. You observe, too, that the urine of the snake—for it has become much more crimson than the other—appears to be the richest in that material. The uric acid of commerce is indeed almost entirely obtained from serpent's urine; consequently, these excrementitious masses sometimes cost as much as thirty shillings per pound.

Hitherto in these lectures I have generally said that all reptiles have solid urines; but, as this has occasionally led my hearers into a mistake, from the fact that, in common language, frogs and toads are reptiles, while, scientifically speaking, they do not belong to the class *Reptilia*, I must mention that these animals have distinct urinary bladders, and possess liquid urines. Frog's urine, for example, is a clear, transparent liquid, containing urea, phosphate of lime, chloride of sodium, and other urinary ingredients, just like human urine. The true reptile, on the other hand, has always a solid urine. Thus it is that the chameleon, which, like the serpent, is a true reptile, passes excrements containing urates, oxalates, phosphates, and, according to Kletzinsky, even xanthic oxide,—one of the rare urinary substances. Do not for a moment imagine, however, that solid urine is one of the characteristics of the lower animal. On the contrary, we meet with it even in the higher classes. Birds have solid urines. Guano—the excrement of the sea-fowl—is in great part urine, and besides the principle, guanine, contains urate of ammonia, oxalate of lime, and ammoniaco-magnesian phosphates.

Again, we find solid urines thoughout the whole insect tribe. The red excrements of the butterfly contain both urates, phosphates, and oxalates, and so it is with the excrements of all other species of insects. We see, then, as was before said, that the only difference between the solid and the liquid urines is in the absence of water.

Liquid Urines.

Having made these remarks on solid, we shall now inquire into the nature of the liquid urines. The liquid urines are found throughout the whole class *Mammalia*, and present three such well-marked varieties, both as regards physical appearance and chemical composition, that it may be said they naturally divide themselves, according to the species of animal, into the three separate groups of carnivorous, herbivorous, and omnivorous urines.

The urine of the first class (carnivora) is characterised as being a clear, transparent, light-coloured liquid, possessing an acid reaction, and rarely depositing anything on cooling.

The urine of the second class (herbivora), on the other hand, is recognised as being a dark coloured liquid, with a strongly alkaline reaction, and depositing a copious sediment within twenty-four hours after being passed.

The urine of the third class (omnivora) lies, as it were, between the two. It is clear, slightly acid, somewhat darker in colour than that of the carnivora, but considerably paler than that of the herbivora, and only occasionally deposits a sediment on cooling.

In chemical constitution these urines present as marked features of difference as they do in physical appearance. Thus, for example, while uric acid (Fig. 1), a beautiful crystalline body, exists in the urine of the carnivora, it is entirely wanting in that of the herbivora.

The urine of the herbivora, on the other hand, contains, in its stead, a quantity of a totally distinct organic acid, namely, hippuric, which not only differs in chemical composition, but also in crystalline form, (Fig. 2.) The urine of the omnivora is again found to stand between the two, and contains a portion of uric as well as hippuric acid.

Even in the nature of their inorganic ingredients, these urines differ materially; for, while both alkaline and earthy phosphates are abundant in the urine of the carnivora, they are entirely absent from that of the herbivora. Their place being there supplied by alkaline and earthy carbonates. Here the urine of the omnivora still occupies the medium position, and claims a share of both.

Fig. 1.

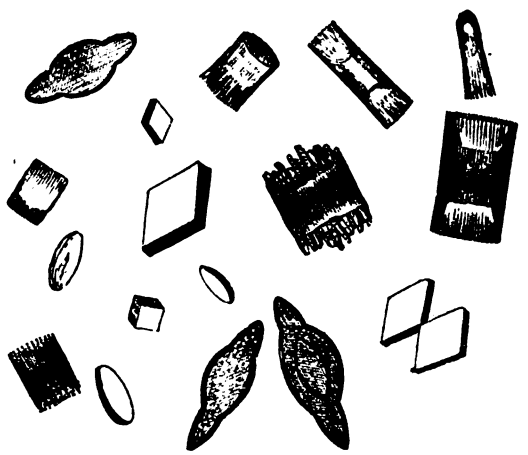


Fig. 1.—Uric acid from human urine, magnified 250 diameters.

Fig. 2.

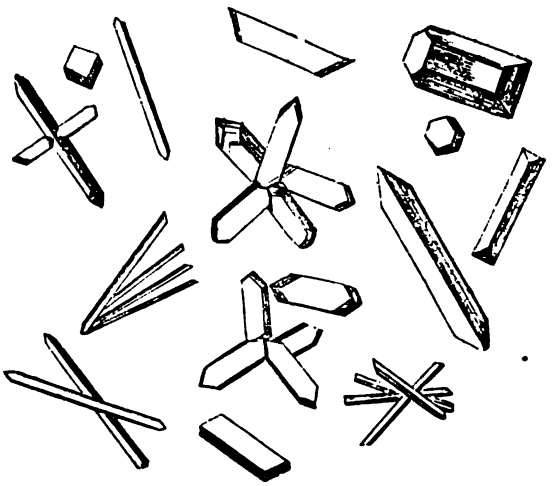


Fig. 2.—Hippuric acid from human urine, magnified 80 diameters.

Having now seen that the urine varies in the different species of animals, we are in a measure prepared to consider how and why it should vary at different times in the same animal. The variations both as regards quantity and quality we shall find to depend upon the state of the body, the kind of food and drink, the amount of exercise, the climate, and an infinite number of minor causes, the influence of which will afterwards appear.

(To be continued.)

Academie des Sciences.—The Academy has filled up the vacancy left among the corresponding members by the death of Sir B. Brodie, by the election of Mr. Lawrence. The other candidates proposed were Professor Rokitansky, of Vienna, and Professor Simpson, of Edinburgh.

The Wigwell Grange Murder.—In consequence of the report of a Medical commission employed by Government to investigate the mental condition of the convict Townley, he has been respited until the further commands of Her Majesty are known.

ORIGINAL COMMUNICATIONS.

RECORDS OF A CASE OF PROPTOSIS, GOITRE, PALPITATION, ETC., WITH REMARKS.

By C. HANDFIELD JONES, M.B., F.R.S.,
Physician to St. Mary's Hospital.

Though cases of the following kind are by no means rare, the one I am about to relate contains several well-marked points of interest, which may be studied with advantage. The various phenomena seem capable of being referred with great probability to a sufficient cause; and the tracing of the operation of this in several instances is instructive, not only as regards the case in question, but many other conditions of very frequent occurrence:—

C. B., female, aged 40, dressmaker, seen February 2, 1859. She was an in-patient in St. Mary's Hospital, under Dr. Markham's care, who kindly drew my attention to the case, and asked me to take charge of it. She was in a state of extreme debility and great emaciation, but not anæmic; unable to lie down. There was marked proptosis; the eyeballs could only be partially covered by the lids. The thyroid gland was greatly enlarged; the middle and right lobes chiefly. On applying the hand to the right side of the neck above the enlarged thyroid, a purring thrill is felt in the superior thyroid artery of that side. The thyroid seems to press to some extent on the trachea, and to occasion the orthopnœa and a cough, which distresses her a good deal. The condition of the thyroid has suggested tying the thyroideal arteries. Heart not enlarged; sounds normal, except a soft, systolic bruit at the base. There is great palpitation, which disturbs her even at night, and extends up to the neck. On examination of the chest more particularly ten days later, no dulness was found, but the breath-sound was extremely weak; the movements frequent and shallow. Bronchial breathing was, however, audible over the upper part of the sternum, owing, probably, to pressure made by the thyroid on the trachea. Pulse 111, soft and weak. Appetite good until lately; food has made her sick the last ten days. Tongue natural. Bowels regular. No catamenia for eight months. She has taken iodine and pot. iod., and applied ungt. hydr. iod. to the thyroid without any benefit; but leeches to the part have given great relief, but only for a day or two. She has been suffering as at present for six months, but her disorder has been coming on four years. The goître appeared first about the end of 1856, after some extra anxiety. The swelling came on suddenly, but did not enlarge much for one year. About a year before her first admission into the Hospital the tumour enlarged much, and cough set in. The chief cause of her great prostration and debility seems to have been her working night and day in the endeavour to support a relative who was dependent on her. She continued in the Hospital under my care till about March 26, when she was discharged to be an out-patient, considerably improved. She slept well, and lay down at night; took food fairly, and had gained strength. The goître had not materially diminished, but distressed her much less; the proptosis continued. For about fourteen days after she came under my care she suffered very much from coughing and vomiting at night, with diarrhœa every now and then. Some nights were much quieter, and then again she would have very bad ones. The urine, before notable amendment had taken place, was of very deep colour; sp. gr. 1018, clear, not albuminous. After she had improved, it was extremely pale, sp. gr. 1011, feebly acid, cloudy from diffused mucus. She derived great benefit from the frequent application of ice to the thyroid; it certainly seemed to check its enlargement. Strychnine and quinine were given at first, but without advantage; the cough and vomiting were uncontrolled. Opium at night, and in smaller doses during the day, did not appear to be of much advantage, except in quieting the diarrhœa. On the other hand, nitrate of silver and hydrocyanic acid appeared really to be of efficacy in calming the irritability of the mucous membranes. After this had been accomplished, she began to take quinine gr. i.; tannin, gr. iv.; opii, gr. i., in two pills, ter die, with manifest advantage, and continued the same till the beginning of August, long after she had ceased to be an in-patient. Ammonia and valerian, and afterwards citrate of quinine and iron, were also given.

In May and June I tried the administration of tr. ergot and of liq. calcii chloridi, in the hope of reducing the size of the thyroid, but without any success. On one occasion I ventured to inject ♏ x. of perchloride of iron into the tumour, but the result was so alarming that I never dared to repeat it. Her head appeared to her to be on the point of bursting; she lost all vision for a short time, and lapsed into a state of semi-syncope, in which she remained about a quarter of an hour. There was no hysteria in the matter, nor was it the effect of fright.

During August she was at the Convalescent Asylum at Walton, where she improved decidedly, and immediately after she went to work in a lady's family at Deal, whence she returned in the beginning of October, looking very well, and, as she declared, with such an appetite, that she was ashamed of it. The goître was unchanged, but the proptosis had disappeared; she could close her eyelids completely. She had gained a good deal of flesh, and felt as well as ever she did, except that her breath was short on ascending a hill or going upstairs.

After this I saw no more of her till May 5, 1860, when I was urgently requested to take charge of her. She had over-worked herself again to provide for some relatives, and had gradually got much worse. I found her in bed, with a very flushed, red, anxious face, extreme agitation, breathlessness, muscular tremor, and debility, but no delirium; her stomach very irritable, rejecting all food; her bowels relaxed and loose; no sleep; pulse rapid and tense—about 100; breathing in lungs clear and free. Opii gr. i., 2 dis hôris; milk and beef tea in teaspoonfuls half hourly, and perfect quiet.

6th.—No sleep; bowels quiet; is not worse. Pt. To sip brandy-and-water often.

7th. Slept four hours, and was much better after it; has become worse again. Pt. Rum and milk.

10th. Last night excellent, and feels greatly better; the night before she had four or five hours' sleep; stomach quiet, no desire for food. Opium during the last two days has been taken 3 tiis hôris.

24th.—Stomach remains very weak and irritable, often has vomiting, sometimes great palpitation; can only take Oswego corn, beef-tea, and milk; had a severe attack of pain at epigastrium and dyspnœa, lasting about three-quarters of an hour, three days ago; none since; sleeps very well; is very weak. Opium every two or three hours.

28th.—Doing well; pulse 111, small and weak; it is notably smaller than it was; face very notably paler, and eyes less prominent.

June 2.—Is very prostrate, and stomach very sick again; she cannot raise herself in bed. Strychniæ, gr. $\frac{1}{16}$th, ter die.

3rd.—Feels decidedly better, and has less sickness.

6th.—Is very much better; sitting up on the side of her bed dressed; stomach quieter.

8th.—Has been out, and enjoyed the air much; has more appetite.

22nd.—Gone to Walton; appetite very good before she left.

October 25.—Is in good health; no proptosis; the goître remains *in statu quo*.

The prominent phenomena in this case were the proptosis, goître, palpitation, cough, vomiting, high-coloured urine, and the extreme and peculiar debility, without any drain or manifest cause to produce it. The beneficial effect of strychnine, opium, argenti nitras, and country air are also highly noteworthy. The immediate cause of the illness on both occasions was excessive toil and insufficient repose. Starting from this, we may fairly assume, as the "grundleiden," a state of prostration and exhaustion of nervous power, and we shall proceed to consider how far this condition may have given rise to the several above-mentioned phenomena. Could it have occasioned the proptosis? It would seem probable that it might, for with returning strength the proptosis diminished and disappeared. Yet the result of dividing the cervical sympathetic is opposed to this view, for in this case the eyeball sinks in the socket, while it projects when the nerve is galvanised. If, therefore, we suppose the sympathetic to be in a paretic state, like the rest of the nervous system, the condition ought to be the reverse of proptosis. I am not aware that any post-mortem examinations have demonstrated the exact state of the parts concerned in this affection, so that we can only form an opinion by reasoning on probabilities. It is worthy of remark that proptosis continues during sleep, which surely would not be if it depended on any active contraction of the muscles. On the other hand, it seems quite possible that a relaxed or enfeebled state of the recti muscles may be

at least one element in its causation. Venous congestion is certainly a sufficient cause of proptosis, as shown by cases of strangulation, and by a case of intra-cranial tumour pressing upon the cavernous sinus (*vide Dublin Hosp. Gaz.*, May 1, 1860). In some cases, however, of extreme congestion there is no proptosis: a patient of Dr. Sibson's died lately in whom the superior cava was almost obliterated by an aortic aneurism; the face and upper extremities were swollen, dusky, and livid from congestion, but there was no remarkable prominence of the eyes. Neither is proptosis observed in numerous cases in which considerable remora of the venous current is occasioned by heart disease. Moreover, in the cases in question there is no apparent cause to produce congestion of the orbital veins. I doubt, therefore, that we are warranted in assuming the proptosis to be occasioned by venous congestion. It is quite certain, as remarked particularly some years ago by Mr. White Cooper, that there is no enlargement of the eyeball itself. We seem, therefore, to be reduced to the supposition either of an increased growth of adipose tissue in the orbit, or of serous effusion. (a) The former is evidently utterly improbable in a case of great general emaciation, and we decide, therefore, for the latter. The seat of this effusion is probably between the globe of the eye and O'Ferrall's tunica vaginalis oculi. In a case of aortic aneurism obstructing the superior cava, recorded by Dr. Watson in his lectures, "the face, neck, and arms were tumid and anasarcous to an enormous degree," and "the eyes seem starting from their sockets." Here there was not only congestion, as in Dr. Sibson's case, but also serous effusion. (a) The experience of Bernard above quoted is against ascribing this effusion to the impairment or lowering of sympathetic nerve influence. Yet it should be remembered that there are many common instances of effusion taking place under conditions of evident nerve-debility, and again disappearing under the influence of tonics, much in the same way as proptosis does.

(To be continued.)

CASES OF UNUSUAL SLOWNESS OF PULSE, WITH REMARKS.

By THOMAS B. PEACOCK, M.D., F.R.C.P.,

Physician to St. Thomas's Hospital, and to the Hospital for Diseases of the Chest, Victoria-park.

(*Read before the Hunterian Medical Society, December* 2, 1863.)

In 1838 Mr. Mayo (b) read a paper, at the Royal College of Physicians, containing notices of several cases of remarkable slowness of pulse, in some of which the condition had existed for considerable periods. In 1842 (c) I reported a similar instance, which interested me much at the time when it occurred; and in 1846 Dr. Stokes (d) published several cases of the same description, with remarks upon them. Since this time other instances have been placed on record, affording further information of the various circumstances under which the condition occurs, and enabling us more satisfactorily to explain the cause upon which it depends. I propose, therefore, to bring the subject before the Hunterian Society, believing that it will prove interesting to the members. The remarks which may be made must not, however, be supposed to apply to the cases in which the pulse becomes slow only during the last periods of life, nor yet to those, not of unfrequent occurrence, in which, though the pulse at the wrist be slow, the heart beats with its usual frequency, but the alternate pulsations being very feeble, are not propagated to the radial artery. I propose, indeed, to confine the attention of the Society to cases in which the impulse of the heart and the beat of the pulse correspond, and in which the slowness is of long duration.

Mr. Mayo classed the cases which he collected into, first, those in which "the pulse was known to have always been the same, or at least was not known at any period to have been different;" and secondly, those in which the pulse was originally of average frequency, "but fell to a lower rate under the influence of causes that, for the most part, were determinable." These forms he further regards as distinguished by the injurious effects which attend the action of stimulants in the former class, and the relief which they afford to the sense of sinking and depression in the latter.

As examples of the original slowness of pulse he quotes two cases. In one of these, a gentleman, thirty-five years of age, had a pulse for many years ranging from 38 to 52. In the other, a gentleman who died at the age of thirty-two of obstruction of the bowels, and possessed considerable muscular activity, had a pulse of 36, occasionally rising to 42 or 44. In neither of these cases does it appear to have been distinctly ascertained that the pulse had previously never been higher; though in the first the rate had been low for fourteen years, and in neither was there reason to suppose that any change of rate had suddenly taken place. I have not myself met with any case in which remarkable slowness of pulse was apparently an original defect, unless possibly the third, which will be quoted in the paper, be of that description.

The other cases which are quoted in Mr. Mayo's paper are regarded by that gentleman as due either to "lesion of the brain," to "great depression, exhaustion, and reduction of strength," to "disorder of the digestive organs," or to affections of the heart. Of these various causes, it may be doubted whether any cerebral disease can persistently lower the rate of the pulse. We know that in cases of concussion and compression of the brain, in the early stages of hæmorrhagic apoplexy, and in coma originating in other forms of disease, the pulse is usually slow and labouring; but if the patient survive, and the symptoms of compression subside, it uniformly becomes more or less accelerated. It seems most probable, therefore, that in all cases of cerebral disease the slow pulse can only be a temporary condition. A case is, however, reported in the *Medico-Chirurgical Transactions*, (e) which has been regarded as affording an example of syncopic attacks with remarkable slowness of the pulse, depending on injury of the medulla oblongata. The following are the particulars:—A gentleman, sixty-four years of age, sustained in a fall from his horse an injury to the back of the neck, the nature of which was not clearly understood. From this he recovered in the course of a year, with, however, some difficulty in moving the head remaining. Two years after he was suddenly seized with a fainting fit, and while in this state his pulse beat only 20 times in the minute. The syncope returned at intervals on any unusual excitement; his ordinary pulse was 32, but during the fits it fell to 12, 10, 9, 8, and, on three or four different occasions, as low as 7. He died suddenly in one of these attacks, five years and a quarter after the receipt of the injury. On examination, the medulla oblongata was found small and very firm; the antero-posterior diameter of the foramen magnum was greatly diminished; the odontoid process pushed back, the occiput, atlas, and dentata firmly ossified together, and the canal so small as only to admit the little finger. In this instance it is by no means clear that the syncopic attacks were dependent on the lesion of the medulla oblongata. Cases of remarkable compression of that portion of the cerebro-spinal axis have been placed on record in which no such symptoms were observed; and the syncopic attacks did not come on till two years after the injury, and no paralytic symptoms at any time occurred. We are further informed by Mr. Liston, who performed the post-mortem examination, that the heart was large, the parietes of the left ventricle rather thin, the lining membrane very much thickened generally, the left auriculo-ventricular aperture large and the right auriculo-ventricular aperture very large. We may, therefore, reasonably conclude that the syncopic attacks depended rather upon the state of the heart than on the condition of the medulla.

It may also be doubted whether disorder of the digestive organs, however greatly, as we know, it may temporarily influence the functions of the heart, can permanently interfere with its rate of pulsation, and I know no case which affords support to such an idea. Dismissing, therefore, these supposed causes of slowness of pulse, there remain the existence of some form of cardiac disease and the influence of general exhaustion, which are considered by Mr. Mayo to give rise to the peculiarity.

1. The occurrence of slowness of pulse in connexion with cardiac disease has been long familiar to practical men. Two at least of Mr. Mayo's cases afford examples of the coincidence. In one of them, a gentleman of seventy years of age, the pulse sank somewhat suddenly, first, to from 38 to 40, and then to 28. In another, a gentleman of fifty-two, the rate of the pulse became from 30 to 34, and occasionally as low as 28, 26, or

(a) In a case at present under my care the fluid bulges forward the skin of the upper eyelid.

(b) *London Medical Gazette*, vol. xxii., p. 232.

(c) *Provincial Medical and Surgical Journal*, vol. iv., p. 68.

(d) *Dublin Quarterly Journal*, vol. ii., 1846, p. 72.

(e) Vol. xxiv., 1840 and 1841, p. 76.

24. In a third case, in a gentleman of fifty-nine, the pulse became very slow, then recovered its ordinary frequency, and afterwards sank to 30 and occasionally to 22, and continued permanently slow. In this instance, though there were symptoms of cardiac disease, its precise nature was not ascertained. Chomel met with a case of disease of the heart in a young man at La Charité, in which the pulse beat regularly 28, and sometimes did not exceed 20 in the minute. Mr. Worthington has related two cases in which, in conjunction with symptoms of cardiac disease, the pulse was very much reduced in frequency. In one of these, a gentleman, between forty and fifty years of age, who had a pulse ordinarily of 75, the beats sank to only 40. In the other, a gentleman of seventy had a pulse of only 26. Dr. Addison mentioned at the Medico-Chirurgical Society, in the discussion on Mr. Holberton's paper, that he had seen a case in which, with epileptic paroxysms and a loud bruit at the heart, the pulse was as low as 24, and sometimes even as 20. Dr. Stokes, in the paper referred to, relates two cases of remarkable slowness of pulse, in both of which there were symptoms of cardiac disease. The patients were sixty-eight and fifty years of age, and the rates of the pulse were 28 and 32, and 35 and 40 respectively; and in the first case there were also pseudo-apoplectic attacks at intervals.

(To be continued.)

SUB-ACUTE GLAUCOMA OF BOTH EYES—TREATMENT BY IRIDECTOMY.

By J. G. HILDIGE, F.R.C.S.I.

The following case shows in the most marked manner the beneficial effects of iridectomy in arresting glaucomatic inflammation, Medical treatment having been previously had recourse to without effect:—

Miss M., aged 35, residing in this city, consulted me on November 24, suffering from glaucomatic inflammation of the left eye. She stated that she had always had good sight of that eye until about ten days previously, when she commenced to remark that everything she looked at with it appeared as if enveloped in mist. This continued to increase, and after four or five days, intense pain set in in the eyeball and temple, followed almost immediately by partial loss of vision. She consulted a Medical man, who prescribed for her, but, as the remedies failed to produce any effect on the disease, she was referred to me. On examination, I found the eye in the following state:—Eyeball of stony hardness, slightly prominent, and painful on pressure; conjunctiva injected, particularly in the neighbourhood of the ciliary ligament; ciliary vessels prominent and tortuous; pupil dilated; iris discoloured, of a greenish hue, and arched forward so as almost to obliterate anterior chamber; the lens and its capsule were quite transparent, but the vitreous humour was so clouded as to prevent ophthalmoscopic examination. She had lost all useful vision with the eye, being unable to recognise the features of persons standing close to her, or to distinguish a single letter of No. 20 of Jäger's test-type, letters about one inch long, when held close to her face. The pain in the eyeball and temple was continuous, and almost intolerable. The right eye was commencing to show symptoms of the disease also, but as yet there had not been any pain in it, and the sight of it was still good. I performed iridectomy on the left eye, on the following morning, her sight having been tested immediately before the operation by Mr. Colles, President of the Royal College of Surgeons, Ireland, and found to be in much about the same state as on the previous day. On visiting her in the evening, she expressed her satisfaction at the complete relief from pain resulting from the operation. During the night intense pain set in in the other eye, and on the following day this eye also was found to be attacked by glaucoma in its sub-acute form. Iridectomy was immediately performed, with almost instantaneous relief; no irritation following either operation, which, in both instances, was done upwards, the slight irregularity of the pupils being completely covered by the eyelids. Vision of both eyes gradually improved from this date up to December 16, on which day she called on me at my request for the purpose of having her sight tested in the presence of Mr. Colles, and other professional friends whom I had invited to be present at her examination. Both eyes had recovered their normal tension, no injection of conjunctiva, pupils of normal size, and the irides had assumed their natural colour (grey). The left lens was slightly hazy towards its external margin; the right was perfectly transparent. Both optic discs presented appearances of congestion, and were difficult to distinguish from the surrounding parts of the retinal field. Vessels scarcely discernible. Vision was now so good that she could count the panes of glass in a window at the distance of between thirty and forty yards with the naked eye; she read No. 8 of Jäger's text type also without glasses, and with No. 2¼ cataract glasses she read small type with each eye separately, to the amazement of the bystanders.

I have not the slightest doubt on my mind that, had iridectomy been delayed but a few days longer in this case, both eyes would have been irretrievably destroyed.

Seven years ago, while pursuing ophthalmological studies at Berlin under my illustrious friend and teacher, Professor Von Graefe, I had the pleasure of translating into English an article written by him, in reply to an attack made on the employment of iridectomy, by Messrs. Wharton Jones and Mackenzie, published in the *Medical Times and Gazette*. These gentlemen denounced that operation as an absurdity, and a proceeding devoid of common sense. It is with sincere pleasure I learn that the former of these gentlemen has found out his error, and has the magnanimity to confess it. In the last number of the *British Medical Journal* he makes the following statement:—"In cases of arthritic posterior internal ophthalmia, or, as it is called, acute glaucoma, lateral excision of the iris has been often followed by a very satisfactory subsidence of the inflammation, with a corresponding improvement of sight. The operation in such cases has appeared to promote the subsidence of the inflammation more effectually than simple evacuation of the aqueous humour."

If I am not very much mistaken, many others, who are now fierce opponents of iridectomy, will, before long, also find out their error, and follow in the footsteps of Mr. Wharton Jones.

Dublin, December 22, 1863.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CHARING CROSS HOSPITAL.

ANEURISM OF THE SUBCLAVIAN ARTERY—LIGATURE OF THE AXILLARY ARTERY—FAVOURABLE PROGRESS.

(Under the care of Mr. CANTON.)

James J., aged 32, a negro, from Barbadoes, was admitted into the Charing Cross Hospital, on December 1, 1863, under the care of Mr. Canton, for an aneurism of the right subclavian artery. Three months before he felt a sudden and severe pain at the inner end of the clavicle, just after driving a large nail with a very heavy hammer. This was followed by a pulsating swelling at the same spot. It was at first small, but had since much increased. His health had become more and more impaired, and his voice very weak. When admitted he had no appetite; his nights were sleepless from constant pain in the arm and hand of the affected side, accompanied with numbness and some amount of swelling of the limb. The fingers were very much clubbed, contrasting remarkably with those of the opposite hand.

Examination showed a pulsating tumour behind the middle third of the clavicle, prominent both above and below this bone, and extending four inches in an oblique and outward direction. Pressure on the axillary artery stopped the pulsation, and by the stethoscope an aneurismal bruit was very distinctly heard. *Fremissement* was most felt over the innominata at the inner end of the clavicle. The pulse on the affected side was 98 and weak; that on the opposite side, however, was small also.

After his admission, opium was given in full doses to relieve pain, with but trifling effect.

On Saturday, December 12, Mr. Canton tied the axillary artery; the tumour immediately ceased to pulsate. The limb was wrapped in cotton wool. In the evening, the patient expressed himself as very much relieved; the temperature of the limb was but slightly diminished, and the following day the temperature of the two limbs were the same.

The artery was tied at the inner edge of the coracobrachialis, as high up in the axilla as possible. On separating this vessel a small branch was wounded near its origin from

the main trunk. Mr. Canton, therefore, after passing the double ligatures under the axillary artery, tied it by one of the threads above, and by the other below, the origin of the wounded branch.

In this case it seemed clear that the inner third of the subclavian artery was affected, as well as the outer two-thirds. Not only was there evidence of this in the fact, that pain was first felt in the right sterno-clavicular region, but at the time of the operation there was *fremissement* in this position. This was further confirmed by the remarkable change in the voice, which showed that in all probability the recurrent laryngeal nerve was affected. To have tied the subclavian would have been impossible; and, therefore, the only choice was to perform the distal operation, ligature of the axillary—Brasdor's operation. Ligature of the subclavian in the first part of its course has been performed seven times, but never successfully. "The operation," says Erichsen, "is bad in principle, and unfortunate in practice." The distal operation for the cure of aneurism of the lower part of the common carotid has been successfully practised, but then it must be remembered that this part of the artery gives off no branches; whereas, a very large trunk, the vertebral, opens into the subclavian. "Dupuytren (we quote again from Erichsen) ligatured the axillary artery under the pectoral muscles in a case of subclavian aneurism, two arterial branches being divided in the incisions through the fat and cellular tissue; and the patient died on the ninth day. This is the only instance, to my knowledge, in which the distal operation has been attempted for the cure of this disease." Still, no other operation than the distal could have been performed in Mr. Canton's case, and the patient was at once relieved of pain; has had to this date, December 30, no unfavourable symptoms; the pulsation is less, and the tumour is firmer. His voice also is stronger than before the operation.

THE ROYAL LONDON OPHTHALMIC HOSPITAL.

CASES OF RETINAL DISEASE OCCURRING IN THE COURSE OF KIDNEY DISEASE.

(Cases under the care of Mr. HULKE.)

PATIENTS suffering from chronic kidney disease not infrequently have defective sight. In many instances the defect commences as a slight dimness, which slowly increases, but not always at a uniform rate, for it is sometimes suddenly intensified, and again decreases. The eyes do not outwardly exhibit any signs of disease recognisable by the unaided observer, except a large sluggish pupil. When one eye only is affected, the sight of this may be nearly lost before the patient is aware of it, if the other eye remains good. Usually both eyes are similarly affected, though in unequal degrees. The following are examples:—

Case 1.—A brassfounder, aged 50, out of work, and badly fed, thought one day that his sight was dim, and, shutting his left in order to try his right eye, found that this was "quite blind." Three weeks afterwards, when he came under my care, the obscuration had decreased, so that with the right eye he could distinguish my spread from closed fingers at six inches distance, though he could not count them. The field of vision was very small. When the left eye was covered the pupil of the right eye dilated, and remained motionless. His complexion was pale; his eyelids were slightly puffy; and his urine was albuminous. He had had ascites and anasarca, which lasted nearly a year, nine years before.

Ophthalmoscopic Appearances.—A dull, greyish opacity of the optic nerve disc, so that the vertical portions of the vessels are hidden. The surrounding retina, in a zone about twice as broad as the diameter of the disc, is grey and opaque, concealing the choroid, which first becomes visible towards the border of the zone where the opacity of the retina decreases, and is not sharply definable till some distance further towards the equator of the globe. The opaque zone, and especially the yellow spot, are powdered with minute, shining, white dots. The retinal vessels seem to end in a tapering manner at the surface of the optic nerve disc, and are indistinctly seen in the opaque zone, where the calibre of the veins appears to be smaller than in the transparent part of the retina beyond the zone, where the veins are swollen and tortuous. The blood-column in the arteries is thin. The arterial coats appear to be thick, and the calibre diminished. In the fork, between the two lower primary branches of the retinal vein, there is a large patch of extravasated blood.

Case 2.—A short, stunted, pock-marked shoemaker came to the Hospital July 24, 1863, complaining that his sight had begun to fail eight weeks before. He read No. 20 of Jäger's test types with his left, and No. 14 with his right eye, slowly and hesitatingly.

Ophthalmoscopic Appearances.—A reddish-grey opacity of the right optic nerve disc, affecting the periphery more than the centre. A similar opacity of the entire left disc. In each eye the disc was surrounded by a belt of dull, opaque, grey retina, in which the arteries were nearly hidden, and the continuity of the veins was apparently often broken. In the left retina there were numerous patches and brushes of extravasated blood, which generally radiated from the optic disc.

Boiled with nitric acid, his urine deposited nearly one-third of its bulk of albumen. He had had dropsy in July, 1862, and a former attack twenty-six years before, which was followed by jaundice.

Case 3.—A seamstress, just convalescent from dropsy, was affected with sudden dimness of both eyes, and a fortnight after this came to the Hospital. She was very feeble, had a blanched complexion, a cough, had not menstruated for three months past, and before that very irregularly. With the left eye she reads words in No. 18, with the right, words in No. 20 test type, spelling letter by letter, and unable to see more than a word at one time.

Ophthalmoscopic Appearances.—In both eyes reddish opacity of the optic nerve disc. A slight satiny haze of the yellow spot, stippled with minute, shining, white orbs, and flecked with punctiform extravasations of blood. A month later the retina around the nerve disc had become hazy.

Her urine was albuminous. She had had two former attacks of dropsy eight years before.

Case 4.—A painter, aged 54, who drank three or four pints of beer a-day, and was "tipsy once in a way," happening to close his left, found that his right eye was nearly blind. Eight months after this discovery he came to the Hospital. He thought his health good, but he had a sallow, waxy complexion, and his urine was loaded with albumen. With his right eye he could only just distinguish light and shade. When both were equally exposed to light, the left eye did not show any sign of disease; but when the left was covered, the pupil of the right eye was large and nearly motionless.

Ophthalmoscopic Appearances.—The optic disc had an opaque, dull, light grey colour. The retinal artery and its branches had a remarkable chalky whiteness. In its primary divisions at the optic disc, and for some distance beyond this, there was a broken axial red streak, bounded on each side by a white line, the contour of the vessel. In some parts the red streak was more sharply defined and of more equal breadth than in others. Its edges faded off, and where broken the ends of the streak tapered. In the secondary divisions of the artery the red streak was thicker, occupying more of the vessel, was less interrupted, and there were short lengths of vessel where it filled the whole contour and broke the continuity of the white thread. In the tertiary divisions the red streak was still less broken; the smallest visible arteries were merely studded at increasing intervals with white dots. A branch of red coral, coated with whiting, and scraped so as to allow the red to glimmer through the white, would give a rough idea of the appearance of the artery.

On inquiry, he replied that his left eye had been failing two months. Its optic disc was red and opaque, and the primary divisions of the retinal vessels were slightly masked.

Remarks by Mr. Hulke.—The structural alterations which give rise to these morbid appearances have been ably worked out by German investigators, with whom the retinal disease appears to be more common than with us. Summed up briefly, the greyish opacity of the nerve-disc and retina proceeds from serous infiltration, from sclerosis and hypertrophy of the connective tissue, and from a nodular thickening of the nerve fibres, which acquire such dimensions that some have maintained them to be sclerosed ganglion cells. The small, brilliant white dots are groups of large, granular oil-corpuscles, situated in the layer of the outer and of the inner granules. Schweigger supposes that they originate in the connective tissue corpuscles. The redness of the optic disc is from capillary congestion, and perhaps also from the presence of new vessels. The apparent interruption of the vein is due to the intervention at those spots of a thicker layer of opaque retinal tissue between them and the observer. The white appearance of the arteries is caused by amyloid changes in their walls, with corresponding diminution of their calibre. The hæmorrhages proceed from—*a*, the disturbed vis

capillaris resulting from the morbid state of the blood produced by the kidney-disease; *b*, an increased mechanical resistance to the free efflux of blood through the veins at the nerve-disc offered by the sclerosed connective tissue; *c*, and in some cases, hypertrophy of the left ventricle, which urges the blood more freely into the retina than it is able to escape from it. These are the morbid changes which cause the loss of sight. The sudden obscurations (distinguished from accidentally-discovered pre-existing dimness) depend on hæmorrhages, and their recession coincides with the removal of the extravasated blood. Some cases are susceptible of considerable improvement by treatment. That which I often follow consists in putting a leech to the temple once a week, and the internal exhibition of the tinct. ferri muriatis. Corrosive sublimate, so useful in some forms of retinitis, has not appeared to me to be serviceable here.

HOSPITAL NOTES.

INTERNAL ADMINISTRATION OF BELLADONNA IN CASES OF SEVERE BURN.

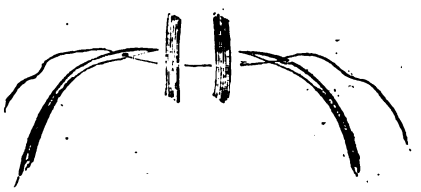
Experimental physiologists have recommended belladonna for use in the treatment of burns, in the belief that it diminishes that state of the nervous functions under which reflex inflammations are likely to be originated. They assert, on the other hand, that of all remedies opium is the one most powerful in increasing this peculiar state, and that it ought consequently to be avoided. In clinical practice, however, we believe that this opinion is wholly disregarded, and that opium is the form of anodyne most commonly resorted to in these cases. Yet it is generally suspected that the causes of death after burns are, in a majority of instances, connected with reflex inflammations, *e.g.*, ulcers of the intestine, pneumonia, &c. In a series of cases under Mr. Hutchinson's care in the London Hospital during the last six months, the belladonna treatment has been tried. In some remarks at the bedside of a patient the other day, Mr. Hutchinson stated that he considered the general results to have been fairly satisfactory. He adverted to the extreme difficulty of forming a trustworthy conclusion on such a matter, since these cases are, in their nature, never stationary, but always tend either to improvement or the reverse, and often with great rapidity. If, therefore, the remedy were commenced when the patient was very ill, it might chance to be just at the time when improvement was about to set in; and if, on the other hand, the patient got worse, it might fairly be alleged that the remedy was used too late. If, on the other hand, we should give it in cases in which, as yet, no serious symptoms had appeared, we might again be much led astray, since a great majority of burn cases do well without any special plan of medication. Mr. Hutchinson stated that the cases in which the remedy had seemed to be most useful, were those of children in whom general febrile symptoms, attended with restlessness, loss of appetite, &c., had set in without any local complications. In several of these, there could be no mistake that the feverish state had passed away quickly and very satisfactorily under the use of belladonna. In no cases had he witnessed any ill results. If the burn itself was very painful, and the patient unable to get sleep on account of the pain, then the belladonna seemed comparatively inefficacious to procure ease, and morphia was far more efficient. As a rule, no opium had been given to the cases treated by belladonna; but in a few, and those chiefly in adults, it had been found requisite to give an occasional night dose. Possibly more benefit might have been obtained had the administration of the belladonna been pushed to larger doses. The usual dose given had been a third of a grain three times a day. In speaking of the less frequent results of burns, Mr. Hutchinson mentioned a recent case in which acute inflammation of one hip joint, followed rapidly by dislocation, had occurred in a child who had been severely burnt on the arm and chest. He was in doubt whether to regard it as a reflex inflammation, or as a consequence of pyæmia.

A SIMPLE MEANS OF INFLATING THE TYMPANUM IN SOME FORMS OF DEAFNESS.

Mr. Hinton, Surgeon Aurist to Guy's Hospital, in forms of deafness dependent on obstruction of the Eustachian tubes from thickening of the mucous membrane, or from accumulation of mucus, has frequently used a method of inflating the tympanum, which has been recently introduced by Politzer, of Vienna. The plan of treatment is founded on Mr. Toynbee's discovery, that the Eustachian tube is naturally closed, but that it is opened by the tensor and levator palati muscles during the act of deglutition. Acting on this fact, Politzer conceived that air introduced with moderate pressure into the nostrils during the act of swallowing, the nose being at the same time closed, would be a very efficient means of overcoming any resistance which might exist in the internal auditory passages. During swallowing, the velum palati is raised, and, if the nostrils are also closed, the upper part of the pharynx forms a shut cavity, withihn whic the in-pressed air operates with great effect, while the tube is at the same time expanded by the above-named muscles. The method Politzer proposed was the use of an Indian rubber bottle, to which a portion of flexible bougie is attached in place of the ordinary nozzle. This being introduced into the nose, and the nostrils firmly closed over it, the patient, who has previously moistened his mouth with water, is told to swallow, and at the same moment the bottle is compressed by the hand of the Surgeon. Air seldom fails to enter the tympanum, and its entrance may be heard by means of the ordinary otoscope, or its effect upon the membrana tympani witnessed through the speculum. Mr. Hinton has found that a simple piece of Indian rubber tubing answers every purpose, and is often even more efficient. One end of the tube is introduced into the patient's nose, which is firmly closed over it, the other is placed in the Surgeon's mouth, who then blows while the patient swallows. In the great majority of cases the method is at least as efficient as the introduction of the Eustachian catheter, while it is free from many of the objections to which indiscriminate Eustachian catheterism is open. The results are often very striking.

USE OF TWO NEEDLES IN PLASTIC OPERATIONS.

The annexed cut represents a very easy method of passing sutures in staphyloraphy and some other plastic operations, recently introduced by Mr. Spencer Wells:



The needle to the left is the ordinary needle, with the eye near the point, and the shaft fixed in a wooden handle. That to the right has, instead of the eye, an open curve or notch, as in Mr. Brooke's aneurism needle. After paring the edges, the needle to the left is first introduced, and that to the right almost immediately afterwards. Indeed, the introduction of the two needles may be nearly simultaneous. The thread near the eye of the first needle is then caught in the notch of the second, and, on withdrawing both needles, the thread is left in its place. As it is quite as easy to catch the thread with the second needle as with forceps, much time is saved by this simple contrivance. Wire may be used instead of silk if desired, or the silk may be used to draw wire after it; but Mr. Wells has almost discontinued the use of wire for sutures, finding that good silk is equally useful, and free from many of the disadvantages of wire.

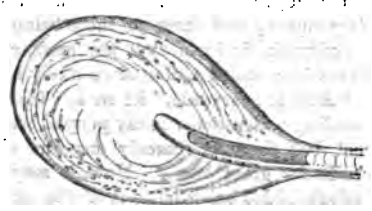
PEMPHIGUS CURED BY ARSENIC.

A very instructive case, in proof of the almost specific virtue of arsenic in relapsing pemphigus, came under notice amongst Mr. Hutchinson's out-patients at the Metropolitan Free Hospital a few weeks ago. The patient was a girl of about fourteen, who had been under treatment, in the first instance about three years ago, on account of severe pemphigus. She had then suffered from the disease for several months, and had been under much treatment on account of it. The eruption was freely out in large blebs, and she was emaciated and feeble. Immediately on commencing the use of arsenic she began to improve, and in the course of a fortnight she was quite well. Not a single fresh bulla showed itself after the first few days of the treatment. In the end, not only was the eruption quite cured, but the girl's general health was very much benefited. Mr. Hutchinson remarked at the time on the great tendency to relapse which this disease usually shows; and stated that, according to his experience, although arsenic almost invariably cured it at once, yet that rela ses

must be expected once or twice in the twelvemonth. If, however, on each occasion arsenic were resorted to, the patient's state of health would gradually improve, and each successive attack might be expected to be milder than the former ones. In this instance the mother of the patient was charged to bring her again should the eruption return. No relapse occurred, however, until the one which brought the patient under our observation a few weeks ago. It was a very slight one, and not more than a dozen bullæ were out. They were, however, quite characteristic of the disease in question. Arsenic was again prescribed, and in about ten days the girl was quite well.

LITHOTRITY IN THE FEMALE.

At the Samaritan Hospital, last week, Mr. Spencer Wells showed nine drachms of fragments of a calculus which he had removed from a female, at one sitting, after breaking the stone by an ordinary lithotrite. The accompanying drawing represents the end of the double current catheter through which many of the fragments were washed. It will be noticed that jets of water are thrown by the syringe along the under or convex side of the instrument. The object is to wash up



any fragments which gravitate to the most depending parts of the bladder, and to force them towards the large opening on the concave surface of the instrument. This opening may be closed or increased by pushing forwards the strong spring slide, which, though sufficiently strong to crush any small fragment, leaves a very free channel for the passage of anything smaller than a pea. The instrument is made by Mathieu, of Paris. Mr. Wells states that lithotrity is so easy and successful in the female, never being followed by incontinence of urine, that dilatation of the urethra, or any form of lithotomy, should only be performed under some very rare or exceptional circumstances. He finds that, both in the male and female, the plan of removing the whole of the stone at one sitting can generally be accomplished; and the chief objection to lithotrity (namely, the irritation caused to the bladder by the fragments, and to the urethra by their passage) is thus safely obviated.

INSUFFLATION OF POWDERED ALUM IN CHRONIC CATARRH OF THE MUCOUS MEMBRANE OF THE AUDITORY MEATUS AND TYMPANUM.

Mr. Hinton has found the application of alum in powder very effective in certain forms of chronic catarrhal inflammation of the meatus and tympanum, which are otherwise often tedious in yielding to treatment. It is especially suitable when there exists a red and granular condition of the membrana tympani, or mucous membrane of the tympanum, with or without minute polypoid growths, such as often lasts from childhood even to the latter years of life, and which are so frequently met with, all acute symptoms having long ago subsided. The alum is easily introduced, after the ear has been gently syringed, either on a moistened camel's hair brush, or, which seems often more efficacious, it may be blown into the meatus through a piece of India-rubber tubing. After a few applications, efficiently made, the unhealthy condition will often be wholly removed, and with it the discharge, the hearing being at the same time, unless other lesions are present, greatly improved.

Royal College of Surgeons, Edinburgh.—Alexander Thom, Esq., A.M. of the University of Aberdeen, of Crieff, has been recently elected a Fellow of the Royal College of Surgeons of Edinburgh.

Academie de Medecine.—For the ensuing year M. Grisolle has been elected President of the Academy, M. Malgaigne, Vice-President, and M. Béclard, Annual Secretary.

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Medical Times and Gazette.

SATURDAY, JANUARY 2.

ANNUS MEDICUS 1863.

Once more our ever-onward march brings us to one of those divisions of time when we may well pause for a few moments to cast a glance back, and recall the principal events, concerning our Profession, of the past year—when we may take stock, and note our gains and losses in the year 1863.

The Great Reaper has, as usual, been busy among us. The death-roll is long and heavy; it contains the names of some who were gathered-in in "the sere, the yellow leaf," after lives of great and continued fruitfulness, of unwearying activity and pre-eminent usefulness, accompanied and crowned by all

> "That which should accompany old age—
> As honour, love, obedience, troops of friends."

Such men were, among others, Evans, of Belper; Jones, of Derby; J. Soden, of Bath; and W. Kingdon, of London. Some, on the contrary, were taken in the very spring-tide of Professional life, just as they were putting forth a rich promise of bud and blossom—as Dr. Pardey and Mr. Wakefield Skey. And some, again, fell in the midsummer or early autumn, in the full vigour of fruit-bearing, when we were looking that they should still add to our stores for years to come, as they had done in the years past. Such were Drs. Challice, Nelligan, and Allan Webb; Messrs. Ancell, Quiller Couch, H. C. Johnson, and Peter Martin.

Lives of all these gentlemen will be found in our columns. Of various gifts, and various degrees of talent, they were all of them true, hard, unsparing—in some instances, alas! fatally-unsparing—workers; noble examples of men giving themselves and all their energies, with untiring devotion, to the practice of the Profession they had chosen. And, even as we write, the passing bell tolls for another, and one of the most eminent of our brethren,—the nephew, pupil, and successor of Cline, the colleague of Sir Astley Cooper, the eminently-successful practical Surgeon of twenty years ago, and ever since one of the most honoured among the fathers and dignitaries of the Profession—the man of whom Samuel Taylor Coleridge was especially the "guide, philosopher, and friend"—Joseph Henry Green, as stately in thought and speech as he was of form, a king among men, rests from his labours, leaving a vacancy which no living Surgeon is competent to fill.

Worldly honours and distinctions ever observe, in their visits to our Profession, the manner and fashion attributed to angels. Such as have fallen to our lot in the past year were well and worthily bestowed. The Court appointments, in the households of Her Majesty and of the Prince of Wales, were made with a degree of discrimination and judgment that justly gratified and excited the approbation of the whole Profession. The extensive changes lately made in the Crown nominees to the General Medical Council caused some surprise, but certainly no disapproval. Whatever the merits

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and eminence of those who enjoyed the distinction of being the first Crown nominees, the gentlemen who replace them are equally well fitted for the appointment by their position and standing among their brethren; while, from their being younger men, they will probably have more sympathy, and a better acquaintance, with the wishes of the Profession at large on the subjects that may come before them; and one of them is well known to have made "State Medicine" his special study. The Crown has set a good example in not making re-election a matter of course. Full details of the last session of the Medical Council were given in our current numbers. It is to be hoped that the infusion of new blood will give more vigour and decision to their proceedings, so that these may not so forcibly remind us of the story of the statesman who, to his sovereign's question, "Well, what have you passed this session?" replied, "May it please your Majesty, six weeks."

An attempt has been made, in one of the higher courts of law, to call in question one of the few acts of the Council—the removal of a person's name from the Medical Register for "infamous conduct in a Professional respect;" but the judges refused to entertain the matter, affirming that jurisdiction lay solely and entirely in the Medical Council.

As to the new Pharmacopœia, it would appear as though "Man never is, but always to be blest." The Pharmacopœia committee "confidently predicted that it would be published by October at the latest," and it is still "*in futuro*." We are happy to observe, however, that it is advertised to appear shortly, and that the Lords of the Treasury have settled its price.

In Parliament, Acts were passed "to extend and render compulsory the practice of vaccination" in Scotland and Ireland. In both bills the principle which always guides the Legislature, when our Profession is concerned, of requiring as much as possible from the Medical man, and paying him nothing, or as near it as possible, was well kept in view, and carried out with a degree of success highly encouraging—to the Government.

Small-pox has been epidemic in England, and its prevalence has been partly accounted for in a valuable report published by the Medical Officer to the Privy Council, showing how very unsatisfactorily and imperfectly the English Vaccination Act works. It appears, for instance, that in the elementary schools examined by the inspectors, from 30 to 40 per cent. of the children had not been vaccinated at all; and of the vaccinated, not more than half could be considered as well protected, vaccination being so often carelessly or unskilfully performed.

At the annual election of Councillors of the Royal College of Surgeons in 1862, the Fellows plainly intimated that they intended in the future to exercise a more potent influence in the management of the College, and they did so at the sacrifice of a highly respected and esteemed member of the Council, who, retiring by rotation, presented himself for re-election. In 1863 they repeated the lesson more strongly and unmistakably, rejecting *two* old members. The Fellows seem thoroughly determined that the Council of their College shall no longer be an obstructive body, stagnating in secret conclave, and barring the way to reforms in Professional education and progress.

The Army Medical Service, which ought to be highly attractive and popular, remains at a heavy discount. We have at various times in our columns fully discussed the grievances complained of by the department. Some of them may be, and doubtless are, exaggerated, but some are genuine and weighty, and they seem likely to work their own cure. It is understood that, at the last Army Medical Examination, only forty-five candidates presented themselves to "compete" for ninety-five commissions; thirty-three of the forty-five passed, none in the first class, the majority in the third. Facts like these are arguments of irresistible force, and the Horse Guards' authorities are taking alarm at the dearth of Medical officers. They will be compelled to make such changes as are necessary to restore the efficiency and popularity of the Service; and, having done so in their Royal Mistress's name, they will not again venture to sully it by breaking faith with those who, on the strength of such changes, accept her commission.

The new Warrant for the Indian Medical Service—said to be of a highly liberal character—has, it is understood, been objected to, at the last moment, by certain authorities, and is, unhappily, shelved: it was, we suppose, too wisely and justly liberal to go down with the military authorities. Dr. Charles Hathaway, the private secretary to the new Governor-General of India, is an eminent officer of the Indian Medical Service, who, after having filled several important appointments, was, in 1862, Special Sanitary Commissioner. His appointment to such a post as he now fills is encouraging, as it will secure increased regard and consideration for the Service from the highest authority in India at any rate, whatever degree of narrowmindedness and "combative officer" exclusiveness may prevail at home.

La Rochefoucauld, in one of those cynical maxims which owe all their pungency and force to their being based on a certain degree of truth, declares that the greater the benefit one man receives from another, the more likely he is to prove ungrateful. "Almost every one," he says, "takes a pleasure in requiting trifling obligations: many people are grateful for moderate ones; but there is scarcely any one who does not show ingratitude for great ones." Now, it may be affirmed that, family relationships being left out of the question, there are no social conditions under which one person receives more direct and personal benefit from another than does a patient from his doctor; it is therefore, perhaps, only to be expected that under no other conditions should there occur grosser instances of ingratitude and repayment of good by evil. Vivid and painful illustrations of this, and of some of the dangers incurred by Medical men in the most honest and straightforward discharge of the plainest and most necessary duties of their Profession, have been afforded during the past year by the actions of Russell *v.* Adams; Morgan *v.* Lingen; Bromwich *v.* Waters; Hodge *v.* Chalmers and Others; and of Symm *v.* Fraser and Another. All these cases are bad enough, but in the last, vindictive recognition of benefits received, and hostility perfectly groundless except on the above hypothesis, seem to have reached their climax; the force of ingratitude and of legal license and injustice can no further go. Even the fertile imagination of the author of "Very Hard Cash" would find it difficult to conceive grosser and more unfounded calumnies against our Profession than the prosecuting counsel permitted himself to utter to the jury in this instance; and no more flagrant example can be adduced of the dangerous facility with which a patient can find legal tools to take up a case, however weak and iniquitous—legal instruments wherewith to torture and pillory a Medical man for performing, in the most humane manner, his bare duty. Fortunately, in all of these actions, the defendants obtained a verdict—but at what a ruinous expense!—at what an incalculable cost of mental anxiety and suffering!

The whole Profession is deeply indebted to the Lord Chief Justice of England for the clear and admirable exposition of the duties and responsibilities, the social importance, and public usefulness of Medical men, contained in his lucid and forcible summing-up in this case.

Some other trials directly affecting, or of special interest to, the Profession have taken place. In Gibbon *v.* Budd it was decided that a member of the Royal College of Physicians has a legal right of action for his fees without a special contract. This right arises from a by-law of the College. We much regret it, as likely to lower the *status* of a Physician in the estimation of the public. Some of the disadvantages and difficulties that may arise from his being thus lowered to the level of a trader, and losing the custom of receiving "his fee while the tear is in the e'e," have been further illustrated by the case of Freund *v.* Bolderman.

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In the Malton County Court, a lodging-house keeper recovered damages against a gentleman who sent into the house some members of his family just convalescent from scarlatina. The fever spread to members of the lodging-house keeper's family, and the defendant was held responsible.

The Grosvenor-place Medical School—the last of the independent schools — the descendant of the Hunterian school — has ceased to exist. The immediate cause was the expiry of the lease of the School buildings; but the establishment of the Schools of St. George's and St. Mary's Hospitals had absorbed the students of that end of London, and the Grosvenor-place School had been lately in a languishing condition. It had in its day rendered eminently good service, and among its pupils may be enumerated many men of mark, as W. E. Page, A. J. Sutherland, C. Guthrie, Baker Brown, Prescott Hewett, George Pollock, C. Babington, A. T. H. Waters, and Mr. Holthouse.

Two of our general Hospitals—one of the oldest and most richly endowed, and one of the youngest, and entirely dependent on public support—have been compelled, by the railway invasion of the metropolis, to seek new sites. St. Thomas's, temporarily located in the Surrey-gardens, has, after protracted delay, caused, apparently, by an *embarras de richesses*, chosen a site, to be called into existence by the end of 1865, on the most fashionable verge of the quarter it was intended to benefit. We believe, however, its choice is to be disputed yet in the Court of Chancery.

The Great Northern has found a habitation near the New Cattle-market, in the very heart of the northern districts, to which it supplies Hospital accommodation.

Of the mental activity of Medical men during the past year the columns of the Journal have contained ample evidence. We have been incessantly busied in accumulating and storing-up observations and facts; and in sifting, comparing, and collating them; with, however, too little of the latter as compared with the former processes—with too much of ingestion and too little of digestion. This last seems too slow a proceeding for us now-a-days, and, when performed at all, is too apt to be performed hastily and crudely; hence, we are always busy also in pulling down or revising old theories and building up new, in their turn to be revised or ruthlessly overthrown. Among the subjects most prominently before the Profession have been—Iridectomy, which, like the British constitution in 1855, is on its trial; the use of the Laryngoscope, the value of which as a means of diagnosis is in many cases indisputable; "Vaccina Syphilitica," about which there has been much discussion, with not very definite results—some, perhaps we may say most, authorities declaring that cases have occurred which are indisputable proofs of the possibility of the transmission of syphilis by vaccination, and others regarding these same cases only as exceptional and accidental—as fortuitous coincidences, in which is to be found no relations of cause and effect; and Ovariotomy, which is fully established in England as a perfectly justifiable operation. It has been successfully performed, also, in Ireland and Scotland, and in France in the provinces. In Paris it is still a fatal operation.

Thanks to the courage and science of the Rev. Dr. Haughton, traumatic tetanus and strychnine poisoning have been successfully treated with nicotine.

Vivisection has been a prominent subject of discussion with the Profession and the public; the abuse of it, chiefly, if not entirely, abroad, having been made a handle for vehement and unreasoning denunciations of its legitimate employment.

In the Académie de Médecine, yellow fever and hydrophobia have been lengthily and wordily discussed, but nothing has been added to our knowledge on either subject.

M. Baudot has published a valuable series of experiments supporting the common-sense, practical view of the use of alcohol, and proving that this hydro-carbon is not exceptionally exempt from submission to the digestive forces, and does not act as a mysterious, incomprehensible agent of evil within the body, and then escape with wholly undiminished volume and powers.

The meeting of the British Medical Association was highly successful; many valuable papers were read, and admirable addresses were delivered in Medicine, Surgery, Midwifery, and Chemistry; and the meeting was opened with a most scholarly and eloquent address from Dr. Symonds, the President.

At the meetings of the British Association at Newcastle, and the Social Science Association at Edinburgh, Medical men contributed a large share of the intellectual food; a mere list of their contributions would take up more space than we can command. Pre-eminent among the papers at the Social Science meeting was Professor Christison's address, as President of the Public Health Department. However opinions may vary as to the justice and soundness of his conclusions with regard to sanitary matters, and the prevailing theories on the causation of continued fevers, there can be no doubt as to the ability of the address, nor as to the value of such clear and logical questionings. Plausible errors are destroyed by them, but truth is only confirmed.

Of our own labours, it would not be becoming to say much here. Our volumes speak for themselves, and their value would not be increased by any praise of ours. But we may be permitted, without incurring the charge of undue boasting on the one hand, or of mock modesty on the other, to point with satisfaction to our having given to the Profession such series of Lectures as Gulliver's, Huxley's, and Brown-Séquard's; such Clinical Lectures as those by Laycock, Soelberg Wells, Le Gros Clerk, and Holthouse; such Original Communications as those of Professor Haughton, Dr. R. D. Thomson, the Observations in Clinical Midwifery of Ramsbotham, and the Researches in Ethnology by the late Robert Knox. Looking at these, at the stores of Hospital Medical Reports, and at the Editorial Remarks on all the prominent topics of the day, we may hope that we have, at least, kept up the reputation of the Journal, and satisfied the just expectations of our supporters.

We would rather point to the deeds of the past than make promises for the future. Yet we may say, that, whilst the Medical History of England will show the greatness and dignity of our Profession as an element in modern civilisation, the practical contributions which will appear this year will show the advances made in the actual every-day working of our art. Last year, Huxley's and Gulliver's contributions helped to deepen and widen the scientific foundations: this year, Simpson, G. Harley, and Wood, followed by an able band of fellow-labourers, will show the newest additions to our powers of alleviating disease and infirmity.

THE COURT-MARTIAL ON LIEUTENANT-COLONEL CRAWLEY.

Lieutenant-Colonel Crawley has received an honourable acquittal on both the charges brought against him by the authorities of the Horse Guards. Against this result of the court-martial we have nothing to say, for in truth, as those charges were framed, we do not see what other verdict could have been arrived at. But still we are far from satisfied. From the moment that the charges against the prisoner were announced, it became perfectly clear that the real question about which the people of England were most concerned was not that which it was intended to try. It remained, therefore, for those who, with ourselves, were anxious to discover what was the cause of Sergeant-Major Lilley's death, and who (if anybody) was in fault, to scrape together as they could the evidence which the chances of a trial upon other issues brought up, and make the best use of it that under the circumstances they could, for the satisfaction of their own minds. To ourselves, moreover, another grave question arose, namely, how it could be that a man could die under such circumstances as attended the death of Sergeant-Major Lilley

in an army where even a criminal is protected by the regulations from punishment of such severity or duration as might compromise his health or life—in an army where the recommendation of the soldier's friend, the Medical officer, is regarded as paramount. So acute a man as Colonel Crawley was not likely to overlook this weak spot in the case of his adversary, and he availed himself of the opportunity it afforded to shift, not only upon Adjutant Fitzsimons, but upon the Regimental Surgeons also, the blame of what occurred. Well, then, we say, that the questions that interest us are these:—1. The nature of the attack from which Lilley died; 2. The causes of the attack; 3. The conduct of his commanding officers; and 4. That of Surgeon Turnbull and Assistant-Surgeon Barnett in relation to them. This is the aspect in which we, as Medical men, naturally view the whole inquiry. Let us see what light the evidence brought forward throws upon these questions.

1. *The Nature of Lilley's Attack.*—That it was an attack of congestive apoplexy, immediately preceded by that sort of bilious derangement which indicates an accumulation of carbon in the blood, (a) seems to be tolerably clear from the narration of the case and the post-mortem appearances. This, too, was the opinion of the Surgeons; and the measures they adopted for the man's relief were those best adapted for the purpose. No doubt is thrown upon the diagnosis.

2. *What was the Cause of the Attack?*—If we were asked theoretically to lay down directions for bringing about an attack of this kind, we should say,—take a robust man, one inclined to be corpulent being best fitted for the experiment, place him in a heated atmosphere, promote torpidity of the liver, and favour costiveness by reducing the amount of his bodily exercise, enrich his blood by an ample diet, and load it thus enriched with additional carbon by unlimited supplies of beer and spirits; and, when all this has been effected, let his affections be harassed by anxiety, his feelings of honour shocked by disgrace, and his mind irritated by a sense of being wronged. And in Sergeant-Major Lilley's case all these conditions were present. Putting the beer and spirits out of the question, it is clear that there was quite enough to produce bilious derangement and apoplexy; but with them no one can wonder at the event. And this, too, seems to have been the opinion of the Surgeons, as expressed in their report of the case. Afterwards, in an addendum, Dr. Turnbull thus expressed himself:—

"In addition to what was stated in my report forwarded yesterday, I have the honour to add that it has been brought to my notice that the deceased was in the habit of drinking a considerable quantity of brandy daily during his arrest, and, on inquiry, I find the above statement to be correct. It is my opinion that this, in connexion with the other exciting causes before related, was calculated to increase the predisposition to an apoplectic seizure, from which he died."

Admitting that Lilley drank as asserted, this Medical opinion cannot be challenged.

3. *Now what had Colonel Crawley to do with all this?*—That the original arrest was by his orders is not denied. But what about the continuance of close arrest, and this at a period when the heat in India is most intense? What about continuing it without bringing the prisoner to trial for a month, thus breaking through the protection in which English law envelops the liberty of every British subject, whether military or civilian. The 18th Article of War provides that "no officer or soldier who shall be put in arrest or confinement shall continue in such arrest or confinement *more than eight days*, or until such time as a court-martial can be conveniently assembled." In this instance, Colonel Crawley was informed by the Commander-in-Chief that there was no case to go to a court-martial; and the only excuse which remained for prolonging the arrest was that of preventing communication between Lilley and Paymaster Smales, whose witness he was at a court-martial then sitting. And this ground for continuing the arrest would, as we are told by the prosecutor, have been illegal, inasmuch as it was Paymaster Smales' right to communicate with his witnesses as freely as might be necessary for his defence. That defence was made on May 10. Lilley had been in close arrest then for fourteen days, and yet his arrest was in continuance on May 25, when he died. Now, it appears that Colonel Crawley would have been solely responsible, if the close arrest of Sergeant-Major Lilley had not been first ordered by Major-General Farrell—illegal though it was—sanctioned and approved by Sir William Mansfield, and the "arrest" ordered to be continued by him, until the final adjournment or dissolution of the court-martial upon Paymaster Smales. If this view of the prosecution be adopted, Colonel Crawley was responsible for taking the advantage of the literal reading of these orders, when he ought to have interpreted and applied them, at his own discretion, according to the circumstances of the case. However this might be, the Court appear to have considered Colonel Crawley legally justified in the course he took, and that Sir William Mansfield and the other superior military authorities were every bit as much implicated in anything that might have ensued from the strict and literal interpretation of their orders as was Colonel Crawley, their subordinate. So it has happened—as it always does happen—that this collective blame, when subdivided, was found to leave no one specially and individually liable. We suppose the "system" is again to blame. Again, "close arrest," we believe, consists in confining the prisoner to the guard-room or his quarters, with a sentry placed outside the door. In this instance, Colonel Crawley ordered the sentry to be placed inside, and not to lose sight of Lilley day or night. The very words of the order were sworn to by competent witnesses, who were present when the order was given. We do not say that this order might not have had some excuse in the circumstances of the season; but if any annoyance was occasioned by it, all the blame is not to be shifted upon the shoulders of

(a) Detailed Medical case of the late Regimental Sergeant-Major J. Lilley, 6th Dragoons, aged 37 years 4 months.

A strong, healthy, well-developed man, inclined to corpulency, about 17 or 18 stone weight. Had always enjoyed good health. Reported sick when in close arrest on the morning of the 24th of May, about 9 a.m. Was immediately visited by Assistant-Surgeon Barnett at his own quarters. He then complained of colicky pains and flatulent distension of the abdomen, heaviness in the head, feeling of oppression about the chest attended with great depression of spirits, bowels distended and rather confined. A large dose of castor oil was given, and hot fomentations applied to the abdomen. They afforded temporary relief. During the day continued restless, but only referred his restlessness to griping pains and flatulent distension of abdomen. At 6 p.m., the castor oil not having acted sufficiently, and the abdominal distension and griping continuing, 8 grains of calomel were administered, and two hours after he had an anodyne and antispasmodic draught of hyoscyamus, nitrate, ether, and camphor mixture. Was again seen at 11·30 that night, when it was found that free evacuation of the bowels had not supervened since the evening visit. A large cathartic enema was then administered, which afforded immediate relief to the abdominal uneasiness. Soon after this he became restless, moaned a little; eyes dull and heavy, with an anxious expression of countenance. Cold effusion was applied to head and chest. When seen at 2·30 a.m. was insensible and breathing stertorously; pulse rapid and full, face flushed. The temporal artery was opened, and a few ounces of blood drawn. Cold effusion and spirit lotion continued to head and chest; extremities immersed in hot water and rubbed with mustard, etc.; not the slightest reaction was induced. He died comatose about 4 a.m. Had aperient medicine during the period of arrest for bilious derangement. The extreme heat at this season of the year, the constitutional predisposition of the deceased to congestion, the peculiar and painful circumstances of his position, the serious illness of his wife, causing depression of spirits, together with bilious and nervous derangement induced by a sedentary life attendant on close arrest, acted as exciting causes to produce the complaint from which he died. Troop Sergeant-Major Wakefield was admitted into hospital the 20th May, with feverish symptoms and nervous excitement. Remained in hospital. Subsequently re-admitted with slight fever. Is now convalescent. Troop Sergeant-Major Duval admitted June 5th. Suffering from slight fever and headache. Progressing favourably.

Signed, J. TURNBULL, 6th Dragoons.

Report of the post-mortem examination made four hours after death.

Body muscular, very fat, and well-developed. Dark livid patches of ecchymosis on face and neck. Head—On opening calvarium, superficial vessels of dura mater seemed much congested, and on opening it up a large quantity of serous fluid flowed out; arachnoid very opaque; normal amount of fluid in sulci; ventricles contained rather more than a normal quantity of serous fluid. On removing brain a considerable quantity of serous fluid remained in the base of the skull. Thorax—Lungs very much engorged from base to apex, and of a dark purple colour; considerable effusion of blood and mucus into the bronchial tubes; heart, apparently enlarged, and valves hypertrophied. Abdomen—Liver very much engorged, but otherwise healthy; kidneys quite healthy; spleen rather congested; stomach almost quite empty; several spots of ecchymosis on mucous membrane. Other abdominal viscera quite healthy.

(Signed) G. W. TURNBULL, Surgeon to Her Majesty's 6th Dragoons.

subordinates. An attempt has been made to lay blame on Colonel Crawley in respect of the place in which Lilley was confined. This attempt, we think, has broken down. The first bungalow was large, capacious, and airy enough; the cubic capacity of the largest room was about 5440 feet. He was, with his wife, removed to the second bungalow, on May 12. It was the best that could be obtained at the time, and, although much smaller, was still not so small or close as had been represented. The capacity of the larger room was about 3220 cubic feet, and that of the smaller, where the sentry was posted, 980 cubic feet. The real fault was confining Lilley in any place at all on May 12, a time at which, under any circumstances, he should have been at large. It has been said that the place was not unfit for human habitation (as this term is understood in military circles in India), but still it is another question whether it was equally adapted for use as a prison. We are not ourselves astonished that Lilley complained of its closeness and heat, after being confined in it for a week; for it appears that, until he asked for the privilege, he was not even permitted to use the verandah. But against all charges of harshness and undue severity in carrying out the arrest, Colonel Crawley pleads that no indulgence was at any time asked of him that he did not grant. We can only discover two such indulgences that were asked, and they appear to have been granted so ungraciously, that we cannot wonder at any one abstaining from asking more. One of these, and the first, was the request of Surgeon Turnbull that Lilley should be allowed exercise. Now, if the exercise of a man not convicted, and hence legally innocent and unpunishable,(b) is to be of any use, it must partake of something more than mere bodily exertion; it should be to some extent recreation. Even a soldier consists of something more than flesh, bones and internal organs, and unfortunately these organs are influenced for evil by conditions acting on them unremittingly through the mind. When, therefore, we read that, even in his exercise on the parade-ground, Lilley was closely attended by an armed sentry, we are in no way disposed to quarrel with the statement of Surgeon Turnbull, that "the good effect of the exercise was in a great measure nullified by the manner in which it was carried out."

4. *And now for the Surgeons*, Assistant-Surgeon Barnett and Surgeon Turnbull. What had they to do with all this—with the existence of those conditions which led to Lilley's death? We are told that the recommendations of a Surgeon in the army are paramount to all other considerations, and the Surgeons have consequently been blamed, first for ignorance of all the conditions of disease to which Lilley was exposed, and next for permitting them to continue. In his defence, Colonel Crawley absolutely went so far as to impugn the credit which was to be attached to Surgeon Turnbull's evidence, and asked "if it was not plain, beyond all manner of doubt, that there was, on the part of Surgeon Turnbull at least, a deliberate design, by a *suppressio veri* and a *suggestio falsi*, to saddle him with personal responsibility for the death of that unfortunate man?" Now, to this accusation of unworthy conduct and improper motives on the part of these Professional men, the vindication which appeared in our last number, written by one whose acquaintance with military custom and military law is beyond all question, is the reply. It is the addendum to their report, and this only, which has brought them into trouble. Their first report as to the causes of the apoplectic seizure was conscientiously true. It would have been well for them had they been content to stand by their first report. But when Colonel Crawley informed Mr. Barnett that he had been informed that Lilley drank, and Barnett reported this to Surgeon Turnbull, the latter was obliged to cause inquiries to be made, and to report the result of these inquiries, as a matter of regular duty, to the Colonel, in the form of the "addendum." We do not indeed know, nor shall we probably ever become acquainted with, the truth as to the quantity of liquor which Lilley consumed during his arrest. That he drank at all was bad for a person in his circumstances, whether he drank "considerable" quantities of brandy, etc., or not. We hold the bill delivered by the Parsee merchant valueless as evidence, for there is no proof that all the liquor said to have been supplied between April 26 and May 24 ever reached Lilley's bungalow. It certainly is not fair to attribute neglect of duty to the Surgeons on the ground of their not reporting any anticipated injury to Lilley's health from the confinement to which he was subjected. Surgeon Turnbull's answer upon this head is an ample justification:—"I did not understand," he says, "the nature of the confinement he was undergoing. The circumstances connected with the arrest were so unusual, and, I considered at the time, of so mysterious a nature, that I did not know how exactly to act in the matter, and I never anticipated that Sergeant-Major Lilley's imprisonment would have continued so long: I thought, if he was to be tried, he would have been sent to the Hospital, so as to furnish the commanding officer with a Medical certificate." In fact, any blame on the ground of not reporting and not recommending any necessary relaxation in the arrest must lie at the door of Colonel Crawley, who was the first to break the law of arrest in not sending the prisoner first to the Hospital, for Medical inspection. He failed, in short, to give the unfortunate prisoner the benefit he was entitled to in the inspection by the regimental Surgeon. Assistant-Surgeon Barnett, indeed, saw Lilley daily, but this was not an official inspection. He saw him on visiting Mrs. Lilley, because he could not avoid doing so. At all events, Lilley did not receive the advantage of the inspection he was entitled to. The law upon this subject is sufficiently laid down, we think, in our correspondent's communication of last week, to warrant us in leaving the question as he puts it.

We must confess that it occurs to us that the position of the Surgeons was one of great difficulty, more especially as Mr. Turnbull had been before recommended by General Mansfield to "carry out his sanitary measures in harmony with his commanding officer." At the most, it can only be charged against them that they were unwilling to interfere with what their commanding officer had ordered as necessary to the discipline of the regiment—acts which in themselves were illegal, and which they could not comprehend. They were placed from the first, not only in a difficult, but in a false position; the opportunity of performing their duty was not afforded them, and no explanation given of the neglect. We can understand, too, with such a man as Colonel Crawley appears to be—a strict and uncompromising disciplinarian, to use the mildest possible description of his official character—that they would, on the one hand, strive to direct their own proceedings by the strict letter of the regulations of the service, leaving him to carry out, without remonstrance or inquiry on their part, that which he might regard as the duty which he owed to the service. For aught they knew, both inquiry and remonstrance might have been resented by him as an impertinence; certainly, they found reason to complain of his mode of receiving the only recommendations they felt authorised to offer. His manner to them as well as to other officers does not appear, from the evidence, to have been habitually such as to encourage unnecessary communications. When it is considered, too, that Surgeon Turnbull had already been reprimanded by his military superiors for the performance of his duty in the sanitary arrangements of his regiment, we can well understand the reticence which this was likely to induce. Medical officers know very well, too, that if they are to succeed in the service they have selected they must stand well with the Horse Guards.

(b) The following extract from Colonel Crawley's defence seems to indicate that he took a different view altogether of Lilley's position when in arrest:—"The case," he said, "had been treated as one of peculiar military barbarity; but, he asked, in what respect the execution of military law differed from that of civil sentences? Did a *judge*, in *passing sentence*, take into account the circumstances of an *offender's* personal position in determining the measure of *punishment* when inflicted upon him? Did he ask what was his habit of body, or what was the exercise he was used to? Or did he inquire whether he had a wife, and if she was sick? *Equality of sentence* for similar *offences* was the rule both of civil and military *tribunals*. Equality of operation upon the *offender* was beyond the reach of human politics."—*Report in Daily Telegraph.*

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THE WEEK.

REGISTRATION OF BIRTHS AND DEATHS.

At the Meeting of the Metropolitan Association of Medical Officers of Health, on Saturday last, a report was brought up, by Drs. Lankester and Buchanan, upon the present mode of registering births and deaths. It was stated that the subject had been brought under the notice of the Registrar-General, in a conference with that officer, and he had engaged to submit the views of the Association to the Home Secretary. At the same time, he could not fully agree with the opinions of the Committee. The main topics considered in this conference were the compulsory registration of all births, the registration of still-births, and the institution of official inquiry by the coroner, or otherwise, in cases of sudden death, or where any death is not certified by a legally qualified Medical practitioner. Various irregularities were referred to in the course of discussion, such as we propose, at an early period, to bring under the notice of our readers. There is no doubt that the time is not far distant when the whole subject of the Registration Act must be reviewed in Parliament.

CANDLER *v.* PEAT.

The Court of Queen's Bench has lately furnished another instance of the injustice to which the Medical Profession is exposed by the power which the law gives to any person to bring unfounded and damaging accusations against his Medical attendant, and, without the institution of a previous inquiry into the circumstances of the case, or character of the respective parties, to have the charge investigated at an enormous expense, a large portion of which, whatever be the issue, must of necessity fall on the shoulders of the defendant. Illustrative cases have been so plentiful of late that we ventured to hope that their number would be for a time exhausted. But not so: the indignation raised by the trial of Symm *v.* Fraser and Andrews had not subsided when that of Candler *v.* Peat, an equally unjustifiable one, although lacking some of those points of surprising effrontery which made the former a topic of the day, was reported in the daily papers. The facts of this case are soon recounted. The plaintiff is a bricklayer, living at Manningtree, in Essex. On the 23rd of July, 1862, he fell from a height of ten feet, dislocating the foot backwards, and fracturing the malleolus. The defendant was sent for to attend him. He saw him the same day. He found that the foot had been already reduced by the plaintiff's brother, who, at the time of the accident, to use the plaintiff's words, "had pulled the foot forwards." Mr. Peat had the patient put to bed, placed the foot in a semi-flexed position on a pillow, and, as there was a considerable amount of inflammation, ordered some leeches and an evaporating lotion. He visited the man twice a-day. On the 5th of August, the inflammation and swelling having partially subsided, Mr. Peat put the limb up in a bandage. At that time the limb was perfectly straight, and the joint was in its proper position. Mr. Peat visited the man until the 11th of August, and up to that time everything appeared to be going on well, except that the patient was so impatient and unruly that his wife frequently had to apologise to Mr. Peat for his conduct. Mr. Peat, however, had no idea that Candler was dissatisfied with the course of treatment he pursued. On the 12th the defendant went again to the house, when he was met by the plaintiff's wife, who refused him admittance, saying that "she was very sorry, but her husband had been so obstinate that he had removed the bandage; he had complained of its giving him pain." After this, Mr. Peat never again visited him professionally. He saw him, however, accidentally six weeks later, and found then that the dislocation had returned, and that there was great deformity. Subsequently the defendant gave the plaintiff a note to Mr. Partridge, the senior Surgeon to the Colchester Hospital. The latter recommended the application of bandages, but the plaintiff refused to submit to the prescribed treatment. Mr. Peat assisted in procuring a subscription to provide a boot for Candler, and on another occasion asked a Professional friend, a Mr. Manning, to look at the foot. After discarding Mr. Peat, the plaintiff came to London and obtained the opinion of several Hospital Surgeons, who seem to have been unanimous in the opinion that nothing could then be done to remedy the deformity. It was not until a twelvemonth after (in July, 1863) that the defendant received notice of the action, and up to that time he had never heard that any blame was attributed to him.

It is clear from the above facts, which were proved at the trial, that the patient, and he alone, was to blame for the unfortunate termination of the case. The jury at once took this view of the matter, and returned a unanimous verdict for the defendant. This, however, is but meagre consolation for Mr. Peat, who, after having been subjected to all the mental anxiety and annoyance inseparable from an action which has been hanging over his head for six months, will now have to pay his own costs, for it is utterly improbable that they can be obtained from a crippled bricklayer. It is reported that Candler has been urged on to the course which he pursued by a personal enemy of Mr. Peat's. If this could be proved, we should be heartily glad to learn that the true culprit had been made to pay for the mischief in which he has aided and abetted.

There is one passage in the opening speech of the counsel for the prosecution on which we congratulate the Profession. Serjeant Parry said:—

"There had been great difficulty in procuring Medical testimony—whether there might be a disinclination in Medical men to come forward against a brother practitioner, or from what other cause, he could not say, but in some instances a fee had been demanded which it was impossible for the plaintiff to bear."

We are heartily glad that the various Medical men who saw the plaintiff, with a single exception, refused to appear on his behalf. We have a right to believe that the disinclination of which Serjeant Parry complained is based upon a growing feeling in the Profession—that no practitioner is justified in criticising publicly the treatment pursued by another legally qualified Practitioner in a case which the former did not himself at the time witness. We think we may fairly take credit to this Journal for having insisted on this principle, and for having placed more clearly before the Profession than had been previously done, the exact conditions under which a Medical man is or is not compelled to appear in the witness-box. The only Medical witness who appeared on the side of the prosecution was Mr. Holmes Coote, of St. Bartholomew's. Although Mr. Coote occupied a singular and unenviable position, we are bound to say that he carefully abstained from offering any opinion as to the treatment adopted by Mr. Peat. His evidence was simply a statement of the condition in which he found the patient when he examined him a short time before the trial. Mr. Manning, Mr. Partridge, of Colchester, and Mr. Bryant, of Guy's Hospital, attended as witnesses for the defence, and their testimony completely confirmed that of the defendant as to the propriety of the course of treatment he had adopted. We only regret that the Medical Profession does not possess a "Defence Fund," which would insure the defendant against pecuniary loss as completely as the result of this trial has left him undamaged in reputation and character.

FROM ABROAD.—PRIZE QUESTIONS OF THE ACADEMY OF MEDICINE.—M. PERRIN ON ALCOHOL.

The following are the subjects proposed for the prizes of the Académie de Médecine for the years 1864 and 1865:—1. The Academy Prize of 1000 francs for 1864, "Describe, by the aid of clinical observations, the complications which may involve the venous centres and their membranes during the course of acute rheumatism;" for 1865, "Traumatic paralyses." 2. The Portal Prize of 1000 francs for 1864, "The condition of the nerves in local paralyses;" for 1865, "Do there exist any specific characters of cancer, and which are they?" 3. The

Civrieux Prize of 1000 francs for 1864, "The history of ataxie locomotrive progressive;" for 1865, "The relations of general paralysis and insanity." It must be especially stated whether general paralysis is a primary affection, originating in individuals hitherto sane, or whether it often occurs as a complication in the course of simple insanity. 4. The Capuron Prize of 1000 francs for 1864, "Incoercible vomiting during pregnancy;" for 1865, "The pulse during the puerperal condition." 5. The Barbier Prize of 8000 francs for 1864 and 1865. This prize, originally established to recompense the discoverer of complete means of curing diseases hitherto reputed incurable, as hydrophobia and epilepsy, has hitherto given rise only to a crowd of fruitless pretensions, and the Academy has resolved to enlarge the programme. It will in future bestow it also upon any Surgeon who, by means of a bold operation, is enabled to arrest the course of a disease, the issue of which is usually fatal. Surgeons of all parts of the world are invited to compete. 6. The Itard Prize of 3000 francs for 1864. This triennial prize is to be adjudged for the best work or memoir on practical Medicine or applied therapeutics—such work having undergone the ordeal of publication for at least two years. 7. The Amussat Prize of 2000 francs for 1865. This is for the work which realises or prepares the way for important progress in Surgical therapeutics. 8. The Orfila Prize of 6000 francs for 1864, "Poisonous mushrooms." This is the third time that this subject has been proposed without eliciting satisfactory responses. 9. The Godard Prize of 1000 francs for 1864 and 1865, for the best memoir upon a subject in general pathology. The essays competing for these prizes, written in French or Latin, must be forwarded to the Academy by the first of March of the respective years.

M. Perrin, one of the authors of the now famous work on alcohol, has lost no time in replying to the strictures by M. Baudot, referred to in our number for December 12. He maintains that his critic lies under a complete misapprehension with regard to the argument maintained in the work in question. While maintaining that alcohol is eliminated from the economy, and possesses none of the characteristics of an aliment, it was never asserted that the whole of any given amount taken could be recovered and exhibited. This could scarcely occur in a mere chemical apparatus, however carefully prepared, and the economy is no such apparatus. However carefully experiments may be devised, large quantities of the alcohol given off by the skin and lungs (to say nothing of the portion absorbed by different organs) cannot be recovered. The assumption commonly made, that because alcohol was not found in any notable quantity in the blood or the products of secretion, it underwent combustion in the economy, was totally unsupported by the production of the resulting water and carbonic acid; and the numerous experiments set on foot by MM. Lallemand, Perrin, and Duroy, without any preconceived ideas upon the subject, having exhibited an abundance of unchanged alcohol in the excretions, the expired air, the blood, and various organs, its intravascular combustion could no longer be maintained.

The one great principle which has to be borne in mind M. Perrin observes is—that every alimentary substance contributing to nutrition, whether this be ternary or quaternary, subjected to the active forces of the chemistry of life, rapidly loses its identity, and becomes a constituent part of the blood; and never, in the state of health, in either small or large quantity, does it ever appear in an unchanged condition in the products of excretion. On the other hand, non-alimentary substances undergo no transformation, form no constituent part of the blood, and are mere foreign bodies, which the economy does its best to get rid of. With respect, then, to alcohol, the following propositions may be laid down, and are fully elucidated by the various investigations published in the work in question. 1. Alcohol, contrary to what happens with alimentary substances, sojourns in the blood as a foreign body. 2. Unlike them, it is expelled the economy unaltered through the various channels of elimination. This elimination commences almost immediately after the ingestion, is constant, whatever be the quantity absorbed, and continues as long as the blood and organs remain impregnated with alcohol. 3. Alcohol undergoes no transformation within the economy, and furnishes no product of oxidation. 4. It betrays its presence by certain special effects, which are always of the same kind, and may acquire such an intensity as to become very rapidly fatal. 5. It accumulates in certain organs (the nervous centres and the liver), which, for equal weights, constantly contain more of it than does the blood. The following are M. Perrin's final conclusions:—*Alcohol may unreservedly be stated not to be an aliment.* Because—1. It exists unchanged in the blood: 2. No traces of its transformation or destruction can be discovered: 3. It is eliminated unchanged by all the excretory organs: 4. The phenomena which it gives rise to, in whatever dose it is taken, its accumulation in the nervous system, and its well-known toxical and pathogenic action, demonstrate it to be a modifier of nervous force, and negative the alimentary character attributed to it: 5. The objection drawn from the inability to reproduce the total quantity taken cannot be received by physiologists. At most, this shows that some portion becomes lost during the peregrination of the alcohol through the economy; but it in no wise proves that it has been burnt or destroyed.

M. Perrin by no means admits that, because alcohol does not undergo decomposition for the purposes of the economy, its presence is therefore useless or injurious. "In demonstrating that alcohol is no succedaneum to starch or fish-oil, but a kind of dispensator of nervous force, we have not lessened the importance of the part it is called upon to play. On the contrary, we have enlarged, specialised, and I had almost said, ennobled it. Under the new point of view, based upon experiment, all is explained concerning the organic effects and functional disturbances produced by alcoholic drinks. It is by their action on the nervous system that, taken in small quantities, they induce in exhaustion that surprising and immediate restoration of power; and it is by the same action, under the form of generous wines, that they give rise to that reaction and feeling of comfort which will be sought for in vain from the aquatic dinner, however well provided. It is through action on the nervous system that, taken in excessive quantities, they produce true poisoning; and, finally, it is by this same action that they interfere indirectly, yet most actively, in the process of nutrition, of which they appear to us to be the especial regulator and moderator."

REVIEWS.

Practical Lithotomy and Lithotrity. By HENRY THOMPSON, F.R.C.S., of University College Hospital, etc., etc. Pp. 270. London: Churchill and Sons. 1863.

FEW departments of practical Surgery have received so large a share of attention from the Surgeons of this country for many generations as the removal of stone from the bladder. It might well be supposed, therefore, that the principles and details of at least the old operation of lithotomy were so far determined as to leave but little for elucidation at the present day. But, in truth, the introduction of lithotrity within the last forty years has effected a great revolution in this branch of Surgery. It has drawn the attention of the Surgeon more closely to the diagnosis of the individual characteristics of each case, so as to enable him to apply to each its most appropriate treatment. And the perpetually recurring question of the choice between lithotomy and lithotrity has reopened this further question, which for many years was shelved in this country, even by Surgeons of the best and largest experience—whether the lateral operation is in reality so far superior to all other forms of lithotomy for all cases of calculus, as the uniform practice seemed to imply? As our author says—

"The conviction has forced itself on the minds of most Surgeons that the difference between a large stone and a small one is so great, both as regards the prognosis of the case and the difficulty to the operator, that it is impossible to regard even all calculous patients, who are to be submitted to the knife, as belonging to one category, and as amenable but to one mode of the remedy."

There were, thus, ample materials for fresh discussion, and the revision of this important subject could scarcely have

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fallen into better hands than those of Mr. Thompson. With an extensive practical experience, with a large knowledge of the subject in all its branches, with a calm and dispassionate judgment, and with a liberal appreciation of the experience and opinions of others, he was peculiarly well qualified for his self-imposed task. And it is but the merest justice to say that he has performed that task in a manner beyond all praise; and that he has given to the students of this branch of Surgery a text-book such as they will seek in vain elsewhere—a work which could only be the result of special study over a long series of years, and which will, doubtless, for many years to come, rank as the most authoritative on the subjects of which it treats.

The work is divided into twelve chapters. The first six are devoted to the description of the various operations of lithotomy, with their difficulties and dangers, and the causes of death after operation. The four following describe in great detail the present practice in lithotrity. The next chapter treats of the choice of operation best adapted to different cases; and the last consists of brief reports of typical cases, illustrative of the main principles of practice.

In the third chapter are described, at full length, the various operations of lithotomy performed in the central portion of the perineum, which have been devised from time to time by various Surgeons with the avowed object of avoiding the serious dangers incidental to any operation in the side of the perineum. Five varieties of central operation are described:—Dupuytren's bilateral; Civiale's medio-bilateral, which Mr. Thompson justly says appears to be utterly unknown in this country; Allarton's median operation, an improvement on the old Marian; Buchanan's, known as the operation with the angular staff, and which approaches most nearly to the ordinary lateral; and the recto-vesical operation. Most, perhaps all, of these operations undoubtedly have their value in particular cases. But the discussion of the anatomical considerations in which they all originated gives occasion to Mr. Thompson to enforce a doctrine of the highest value with reference to all operations on such delicate and sensitive parts as those under discussion—a doctrine, however, which appears to be too often overlooked by those who, in the pride of minute anatomical knowledge, are apt to forget the difference between an operation and a dissection, viz., that supposed anatomical requirements are not to be allowed to override the vital or physiological ones. This truth is of so great importance towards the appreciation of the various points of practice included throughout the volume, that we transcribe our author's own words:—"Unquestionably, it must be agreed by all that the anatomical necessities of the region, *if alone considered*, demand that in the preliminary incisions the operator should avoid the upper and outer parts of the perineal space, and that he should confine the deep ones within the limits of the prostate gland. But there is another necessity, *not an anatomical but a vital one*, less obvious, possibly, to the casual observer, but not a whit less urgent, and with which the former must be reconciled, viz., the important fact, that the internal opening must be sufficiently free to admit the instrument and the stone to pass *without the exercise of so much force as to hazard the destruction of the tissues* at or about the neck of the bladder. It is the clashing of these two opposed considerations, the vital and the anatomical, which will, probably, always maintain a difference of opinion and of practice in lithotomy."

The author belongs to the vital school, and loses no opportunity of enforcing the doctrine, that the vital considerations are to be regarded as at least equal, if not paramount, to the purely anatomical. This is the text, on which the whole work is a practical commentary. On this principle, he insists that the two main points to be attained are—a sufficiently free incision and an avoidance of all violence in manipulation. In speaking of the causes of death after lithotomy in the adult, he places first destructive inflammation of the tissues in consequence of mechanical violence inflicted in the removal of the stone. "From what I have seen," he says, "of the practice of lithotomy, in various hands, I am persuaded that insufficient internal incisions are equally dangerous with those which are too free, and that the tendency of the present day is towards the former extreme. The purely anatomical view of the subject appears just now to be in the ascendant." He considers that the danger of urinary infiltration, *simply as the result of too free incision*, is, to say the least, greatly overrated, if not purely mythical, believing that, whenever it occurs, it is the result of violent bruising and laceration of the connective tissues. "I very much doubt," he says, "if urinary infiltration *ever* occurs when they (*i. e.* the tissues) are otherwise uninjured, in a person of fair vigorous health." This unorthodox position he fortifies by pointing to two highly significant facts:—first, that while it is certain that the boundaries of the prostate are almost invariably overstepped by the knife in children, infiltration of urine very rarely occurs in their cases; and, secondly, that the most successful operators have been those who advocated sufficient incision as less dangerous than violent extraction. He adds, that in the numerous correspondence he has had with the best lithotomists of the day, he has found that, whatever discrepancies there may be between them on other points, this is the single particular on which all are agreed. The whole argument, which is stated very fully, is well worthy the close study of the Surgeon.

The author draws an important distinction between the causes of death in the adult and in the child, showing that in the latter the usual causes are peritonitis and constitutional exhaustion, and rarely diffuse cellular inflammation.

The portion of the work which treats of lithotrity has a value of a different kind from that devoted to lithotomy. For lithotrity is essentially a new operation. For many years after its introduction it was tentative and experimental. Founded on no principles, and regulated by no laws, it was performed in a manner radically bad and wrong, which has only gradually given way to the sound and successful operation of the present day. In the operation as formerly performed, but few precautions were taken against mechanical injury to the parts concerned, either during the operation or, subsequently, from the passage of fragments. Hence arose frequent and serious complications, and the operation fell into unmerited obloquy. Now, such precautions form the basis of every step of the operation, and in the hands of a good operator accidents are comparatively rare. This vast improvement has been effected by attention to innumerable details, each of which, as our author observes, "may be minute in itself—indeed, apparently insignificant at first sight to some minds—but each becomes important when the result of their aggregated influence is regarded." We shall make no attempt to analyse the very full and circumstantial exposition of the principles of the operation given by Mr. Thompson. To give a satisfactory account of it would be to transcribe his four chapters, for, where everything depends on detail, no detail can be omitted without detriment to the whole. Suffice it to say, that this is the only work published in this country which lays down fully and accurately the conditions of success in lithotrity.

Not the least valuable portion of this most instructive work is the chapter devoted to the discussion of the choice of proceeding in different cases. Mr. Thompson points out that the introduction of new and varied methods of operating has rendered *absolutely necessary* a correct diagnosis of the size, form, and chemical characters of the stone. For want of this accuracy in diagnosis he asserts that lithotrity at its first introduction "actually increased the fatality from stone operations, and was a positive calamity for many stone patients." Many who might have been saved by lithotomy were destroyed by lithotrity, which was quite unfitted for their individual cases. He considers it actually safer "uniformly to practise lithotomy in every instance if the Surgeon does not arrive at an accurate diagnosis of the nature of the stone, and select an operation in accordance with it." Great strides are being made every year in our knowledge of the means of forming such a diagnosis, and Mr. Thompson gives an admirable *résumé* of that knowledge. Whether lithotomy will ever be entirely superseded by lithotrity is a question which it would be premature to attempt to answer; but most assuredly, if so desirable a result is ever to be attained, it can only be by an improved diagnosis enabling us to discover every stone in the earliest stages of its existence. And, in truth, diagnosis is steadily doing its work in this direction. In the large collection of calculi at Norwich, Mr. Thompson "calculated the sizes presented during each consecutive ten years down to the present time, and noted the significant fact, that they are gradually decreasing in size;" in other words, that the stone now is detected in an earlier stage of its existence than formerly.

We have endeavoured briefly to point out the leading features of this, the most complete and trustworthy work in the language on the subjects of which it treats—a work which more than upholds the deservedly high reputation of its author, as second to no living Surgeon in this department of practice.

THE

MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.

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PRELIMINARY WORD.

THE idea of giving to the public and the profession of Medicine a series of facts on the Medical History of the Cities and Towns of England, originated with the senior representative of the eminent publishing firm, the Messrs. Churchill. The labour of carrying out a suggestion so happy and so promisingly useful, has been entrusted to me, the columns of the *Medical Times and Gazette* being the field for my work. That the work, if it be done well, is a great work I know: it is a work that should live for future historians to quote from, elaborate, criticise, and use as historians only can use facts of the past, and pictures drawn at the time when the events depicted were being carried out in very life; and I have undertaken the duty, because it irresistibly suits my fancy. But how far I shall succeed I must leave to fortune and friendship. I know my weakness on the one hand for a task so heavy; but then, I know also, I write for a Profession that of all others is most forgiving; that lives on forgiveness; that knows the human heart so intimately that it looks on all acts, omissive and commissive, with gentleness and hope. For the rest of the world, what need is there for care so long as each line is written faithfully?

I have set before myself certain rules which are few and easy. A first rule, to write with the simplicity of a child, describing what he has seen, during a holiday from home. A second rule, derived from the experience of a man, to put into the foreground those points which are most likely to be of use to other men, also occupied in meeting the daily requirements of Medical practice. Thus, as I pass from one place to another, I shall find some Medical brother practising some new art, which I shall learn, note, and submit it to all brethren. A third rule, to notice everything, as far as I am able, that may seem anywhere to require improvement. And, a last rule, to endeavour, by choosing those localities for description which are most interesting to the Medical world, to seek for information from the best centres of intelligence and active life. Ere this preliminary word is over, I must seize the opportunity of asking the kind aid of other men, who, willing themselves to be recipients of information, are not less willing to offer what they know for the common good. I must ask that any new fact, though it may seem to be trifling to the possessor of it, may be mine for distribution; for, as the great Dr. Rush well said in his eulogy on Cullen:—"There are mites in science as well as in charity; and the ultimate results of each are often alike important and beneficial. Facts are the morality of medicine; they are the same in all ages and throughout all time."

I open this work with the Medical History of Norwich and Lynn.

B. W. R.

THE MEDICAL HISTORY OF NORWICH.

Taking it all in all, there is no city in the United Kingdom that presents more striking features of interest to the Medical man than the city of Norwich. Not that its size gives its unusual importance (it contained 74,865 inhabitants in 1861); not that its public buildings or its commerce give it undue pre-eminence, but that it has had the advantage of possessing for—I had almost said centuries past—Esculapian citizens, who have been singularly active in observation, and singularly successful in special departments of practice. To the stranger, the city is not at first inviting. It is at once straggling and cramped; for the streets, widely distributed, are long and narrow, and the city altogether is constructed without uniformity. It is one of those cities which, having arisen first from a castle and a few surrounding buildings, became, in time, a fortified town. It is reported as having been founded on the ruins of the Venta Icenorum, at Caistor. The castle was built in the reign of Anna, in the year 652. In 878, Alfred the Great, after conquering Guthrum, the Chief of the Danes, gave to him the kingdom of the East Angles and Norwich Castle as his royal residence. The possession held by the Dane was soon cut short; the Saxons again became masters, and continued so to the time of Edward the Martyr. In the reign of Ethelred the castle and city were invaded by Sweyne, King of Denmark, and both are said to have been entirely destroyed; this event occurred about the year 1004. The legend runs that the present castle was built by Canute, who commenced his reign in 1017; this is inferred from the style of the architecture, which is mainly Danish. At the Norman Conquest the castle was evidently considered of great importance; the Conqueror appointed Roger Bigod constable, and the office remained in the Bigod family for many generations.

There seems reason to believe that at the time of Canute an arm of the sea extended to Norwich, and some historians opine that the sea washed up to the city even when the Conqueror was king. There are two theories extant as to the natural process by which this arm of the sea was cut off. The one theory is, that the river on which Yarmouth has since been built was divided into two channels by a sand bank. In process of time, one of these channels, the lower, became choked up with sand, and the consequence was, that the sea was prevented from finding its way to the marshes below Norwich. A second theory assigns as a cause for the withdrawal of the sea the sinking or depression of the waters of the German Ocean. Any way, at the present time the only bodies of waters near to Norwich are the rivers Wensum and the Yare. The former river (the Wensum) enters the city at the north-west and leaves it at the south-east point. It pursues thus a winding direction, including in its course on the left or northern side about one-fourth of the city. In 1294, the city was surrounded with walls, built of flint. These walls enclosed the whole of the place, except on the south-eastern side and on the northern side, where the river Wensum formed a natural boundary. Remnants of the walls still remain: when in their glory, they were flanked with forty towers, and pierced by twelve gates.

The local chroniclers are proud to tell of the space of ground which their city occupied in the ancient times. "This city," says the editor of the "Norfolk Tour," "chiefly occupies the top and sides of a gentle hill, which runs parallel with the Wensum on its western side, and terminates at a sudden bend of the stream. It is said to stand upon more ground comparatively with its population than any city in the kingdom, the buildings being generally interspersed with gardens, which circumstance has given rise to the appellation of 'a city in an orchard.' The shape or plan is irregular, approaching that of a cornucopia, or bent cone, and has been said, with more truth than elegance, to resemble the outline of a shoulder of mutton. It is rather more than one mile and a half in length, from Conisford-gate on the south to Magdalen-gate on the north; and a mile and a quarter broad, from Bishop-gate on the east to St. Benedict's-gate on the west."

In the history of Norwich, from the time when it was a walled city until now, so many marked and astounding events have occurred, that barely to name them would occupy more space than can possibly be spared; but I must not omit to mention that the city in 1551 was visited with an epidemic of the fifth and final outbreak of the disease known as the "sweating sickness." In this outbreak 960 of the citizens died in a few days. I should also narrate, that in 1558, quartan ague, in a severe and fatal form, appeared in the city, and returned at different times with great vehemence, so that the following are reported as destroyed by it:—667 in the year 1591, 3076 in 1602, 1431 in 1625, and as many as 2251 in 1665. During these times the water supply must have been derived mainly from the marshes, waterworks not having been established until the year 1698. The city was first lighted in 1702.

The general outline of the city remains much as of old, but around the magnificent cathedral there are open places and buildings of very great beauty. The cattle market is a magnificent improvement. This market-place, overlooked by the castle, is nearly equal in size to the market in Copenhagen-fields, London, and is infinitely better arranged. On a fine day the Norwich cattle market is now one of the most remarkable sights in the kingdom; it is a model which the sanitary legislators of our other large towns would do well to follow. The city, for the most part, is now also well drained, the sewage emptying itself into the river. The water supply is derived from the river about a mile above the city. To this point I shall refer in detail at a subsequent page.

The manufactures of Norwich are extensive. At first it is probable the city was merely a centre for soldiery: then it became a market for goods of various kinds. In the early part of the reign of Elizabeth its trade declined; but in 1655 nearly three hundred Hollanders, flying from the Low Countries after the persecution of the Duke of Alva, settled in

Norwich, and introduced the weaving trade, and especially the manufacture of bombazine and crape. Queen Elizabeth, always alive to the interests of commerce, fostered these fugitives, and their families rapidly increased, so that at the close of her eventful reign they numbered nearly five thousand. They stamped the commerce of the city in its main branches.

Proceeding from these general facts relative to the city, I pass now to matters more purely of professional interest, taking up those charities which present points most worthy of our attention. In this direction I naturally commence with

THE NORFOLK AND NORWICH HOSPITAL.

The Norfolk and Norwich Hospital was founded in the year 1770. It would seem that for some years previous to the foundation the want of such an institution had been keenly felt by the inhabitants. The then Bishop of Norwich had specially fostered the idea, if he were not the actual author of it. In his recommendations he was warmly supported by Mr. Benjamin Gooch, a chirurgeon whom we shall see by-and-by as one of the celebrities of Norfolk. At the instance of the Bishop, Mr. Gooch visited London, and inspected all the Hospitals of the metropolis, with a view to learn every fact in regard to construction, and the various Hospital necessities. The site of the Hospital was determined on the 30th of August, 1770. It was a piece of ground without St. Stephen's-gates, belonging to the Corporation. The lease of the ground was obtained for five hundred years, at a rental of £6 per annum.

The Hospital was originally built in the form of the letter H, and great care was taken to give sufficient space for each patient, and to secure good ventilation. For these provisions, the Hospital managers, and hundreds of sick patients since, are indebted to the care and foresight of Benjamin Gooch, of Halesworth. In speaking of these provisions, Gooch, in his account of "the rise and progress of the Norfolk and Norwich Hospital," refers with special emphasis to the "particular regard that has been paid to a point of the utmost consequence, which is, having the wards lofty and airy." "The wards," he adds, "are of different sizes, and all fifteen feet high; they are kept very neat and clean, not crowded with beds, and well ventilated by having the convenience of letting down the upper parts of the sashes occasionally in the wards and in the galleries communicating with them, which is done every day for a due time, when the weather will admit of it; and it is observed by all people who enter these wards, that there is not the least offensiveness, particular care having also been taken in respect to the adjacent necessaries, which has effectually obviated any complaint on that account." As illustrating the reason why he attached so much importance to space and ventilation, he says: "In a conversation which I formerly had with my worthy friend, Dr. Hunter, Consulting Physician to the Brownlow-street Hospital, he told me there were two wards of equal length and breadth, one directly over the other, but the upper some feet lower than the other, in which the same number of patients were lodged in similar circumstances, and that it was observed more died in the upper than in the lower. This difference of success could not at first be accounted for, but, upon further consideration, it was apprehended it might arise from the greater impurity of the air they breathed; consequently, the number of patients was lessened in the upper ward, and then they did as well in that as in the other."

I have dwelt on this fact, because, to my mind, it is an explanation of an important result. We shall learn, when the practice of the Hospital at Norwich comes under discussion, that certain operations have been performed there with a success that is almost without a parallel. The reason of this is, I think, that in the Norwich Hospital the great experiment of treatment after operation, by fresh air and plenty of it, has been going on systematically from the first.

To return to the building: it was so far completed as to be ready for the reception of patients on Saturday, July 11, 1772. On that day three out-patients were admitted, and in the following month there was accommodation for thirty in-patients. The Medical Staff was complete, consisting of Mr. Benjamin Gooch, as Consulting Surgeon; Drs. Beevor, Manning, Murray, and Hook, as Physicians; Messrs. Maltby, Rogers, and Donne, Surgeons; and Messrs. Alderson, Rigby, and Palgrave, as Assistant Surgeons. An Apothecary was also elected, and drugs were ordered from "Apothecaries' Hall" and "Corbyn's."

Dr. Copeman, at this time one of the well-known Physicians to the Hospital, in a very valuable treatise on the History of the Institution, shows that, at first, there was a misunderstanding between the acting Surgical Staff and the Governors, in reference to the appointment of Gooch as Consulting Surgeon. The three acting Surgeons, in fact, issued a memorial, drawn up not in the best taste, inquiring what duties the Consulting Surgeon would have to perform, and stating that such appointment was not common in other Hospitals. Gooch was then ill, and the memorial might well have been spared, for the office was intended to be purely honorary, and a compliment to one who had taken so active a part in the foundation. Some curious communications also took place, as Dr. Copeman shows, between the Medical Staff, at various times, in regard to the Assistant Surgeons. Finally, the number of Physicians was fixed at three, Surgeons at three, and the Assistant Surgeon at one. It was also determined "that it was not necessary, in the election of a Surgeon, that he should previously have been an Assistant Surgeon."

Notwithstanding occasional differences of opinion between the Faculty and the Board of Management, it is certain that of the English county Hospitals, of which this was the fifteenth, none have been better officered than the Norwich Hospital, from the day of its opening until now;—when Drs. Ranking, Copeman, and Eade, are the Physicians; Messrs. Nichols, Firth, and Cadge, the Surgeons; Mr. Crosse, the Surgeon-Assistant; and Mr. Williams, the Resident Surgeon. The Hospital was originally intended as a house of charity, and nothing more: but soon after the opening, in 1774, a precedent was set for allowing patients to enter on payment of a certain moderate sum to the funds of the charity.

A resolution, that all infectious disorders should be excluded from the Hospital and from any building in the grounds, was passed in 1780, at the instance of the Medical Staff, and this rule has remained in force. A regulation was also made in 1801, to the effect that patients should be discharged at the end of two months, unless the Staff, on consultation, think there is a probability of cure or of considerable relief.

In the years 1802, 1825, and 1848-9, additional wards were constructed, on the last occasion two very large ones being added. These buildings have caused a modification in the original plans of the Hospital, but have enabled the Governors to enlarge their charity in proportion to the demands made upon them. The Hospital, at the time of my visit during December of the year just passed, contained 148 beds.

The last great improvement in the Norwich Hospital consisted in the formation of the museum. So far back as May 15, 1773, owing to the great number of stone cases in the Hospital, an order was passed, that the Apothecary "provide a nest of drawers to deposit the stones extracted in this house, that they may be carefully preserved and shown to strangers." A museum was thus commenced,—at all events, its nucleus was formed. With additions, the nest of drawers continued, but without a companion, until the year 1843, when the late Mr. John Dalrymple presented to the Hospital his father's museum. Afterwards, the late Mr Crosse contributed his museum; and on September 10, 1845, a new museum was formally opened, Mr. Crosse delivering one of the most interesting and learned addresses that ever graced such an occasion. The corner-stone of the Hospital, as a school of practical science and charity, was thus completed.

As the Hospital at present stands, it is less imposing from without than most other buildings of its class. Its architecture is of the plainest, essentially "modern-age English." Within, there is the same simplicity and want of art, but the air in every part is peculiarly free from offensive odour. I was never in a Hospital where this fact was so well marked. The purity of the air is due to the simple and effective means of ventilation that has from the first been carried out. There is no elaborate artificial system of ventilation adopted, but a natural system, by which, through the windows of the ward, a free current of air is allowed to pass regularly and freely from one side to the other. In this respect, the plan used, and so much boasted of, at the Hospital of Bordeaux, is presented—not so elaborately, perhaps, but as effectively. Here it has been at work ninety years; and while millions of money have meantime been spent in inventing and carrying out artificial plans of ventilation, the inexpensive natural plan has been going on at Norwich with perfect success, and at scarcely the cost of a penny. So successful is this mode of ventilation, that since the foundation there has not been a single epidemic of either pyæmia or erysipelas in the Institution. No wonder that the Surgeons can show an admirable balance-sheet in favour of life after capital operations. The Surgeons of Norwich not only acknowledge nature, but take her in as the senior partner in their firm. In addition, ample space is

given to each bed—1215 cubic feet being the average. Another custom worthy of remark in the management is, that from the first straw mattresses have been used in the wards, the straw being destroyed after use, and a new mattress made for a new patient. Under present circumstances, there can be no doubt that this method is the best; but it is essentially inartistic, and open to improvement. What is wanted in sick Hospitals is a bed that can be steamed through every fibre, and yet not be destroyed.

The floors of the Hospital, of white pine, are washed and scrubbed with soap and water; dry scrubbing has never been tried; I doubt, in fact, the possibility of cleaning white pine by the dry process, however desirable it may be when it is admissible.

As in most English Hospitals, there is an absence of any uniformity in the classes of patients. On the male side, the Medical cases are separated from the Surgical; but on the female side they are mixed. One ward is set apart for compound fractures, one for accidents, and one for operations. The beds in every ward are severally loaded with blue chequered curtains: the tester certainly is removed, but on each side there are two or three yards of surface of curtain; so that if the curtains are drawn closely round the bed, as is not uncommon, and you look at the patient from the foot of his bed, he resembles one of the images in the side-slips of the cave of Elephanta; while, from either end of the ward, the enormous surface of blue sheeting presented to the eye, conjures up droll ideas of intoxicated Dutch crafts in full sail. Irrespectively altogether of the uselessness of these appendages to beds, especially in the Hospital ward, they are objectionable from the slovenly appearance they impart: some are tucked-up, others are half drawn, others are drawn in full—disorder at every point, with nothing for the eye of the sick man to rest on but blue curtain and dead-white wall. Not a picture, not a flower. These are the thoughts that occur to the mind of a stranger, and I hope my Norwich friends will take them, as they are given, all in good part.

The Museum, to the inauguration of which reference has already been made, is a fine room with a surrounding gallery, and excellent and well-stocked cabinets. It is ornamented with four paintings, of uniform size, and representing Gooch, Caius, Rigby, and Dalrymple. There is also a very fine bust of the late Mr. Crosse.

In some respects the museum of the Norwich and Norfolk Hospital is unique; but in all its parts it is excellent, and it reflects the greatest credit on its founders and curators. I must not attempt, even, to describe it in full; but there are a few specimens I cannot pass over. Amongst these, John Dalrymple's cabinet of anatomical and morbid preparations of the eye hold a first place. Changed less than such specimens usually change from preservation, they present a series, from which a volume might be written and illustrated—a volume such as no student in Ophthalmic science at present possesses. I wonder, indeed, that some one of the able representatives of Physic in Norwich does not undertake a task so interesting and profitable.

In another cabinet there is a singular, and, as far as I know, unique, specimen of fracture of the odontoid process of the axis. The patient in whom this accident occurred lived for a whole year afterwards, and died of cholera. He pursued, up to his fatal illness, his usual avocations, without experiencing any inconvenience. There is also another rare specimen in the museum, of dislocation forwards of the last dorsal vertebra, *without fracture*.

Near to the last-named specimen is the skull of a boy; in this skull the breech piece of a gun was lodged in the frontal sinus. After receiving the accident, this boy walked to the Hospital, with the iron piece in his forehead. There were no serious symptoms, until an operation was performed for removing the foreign body. The attempt was followed by hæmorrhage, and death as the consequence. Amongst these relics of bones, the skull of Sir Thomas Browne, author of the "Religio Medici," figures prominently. The skull is in an excellent state of preservation, and is a kernel for the Phrenologists. It is somewhat beyond the ordinary size; but the shape is not altogether Jovian. The forehead is very retreating, and the animal part, if the head-feelers are right, is rather too prominent for so good a man. Probably an explanation of these difficulties may be supplied, on the theory of the "balance of power"—a theory which is as useful to the followers of Gall as it is to the disciples of Machiavelli. Independently of the bumps and the balances, the skull conveys to the mind that its owner was a perceptive, rather than a profoundly reflective, man. I shall refer again to this relic, when treating of the celebrities of Norwich.

A specimen of ligature of the common carotid is of interest, as being the dead representative of a case in which Mr. Dalrymple performed the then unique operation of tying the carotid, for aneurism of the orbit by anastomosis.

The skeleton of a dwarf named Pycroft, who was executed at Norwich for murder some years ago, is preserved as a pathological feature. The skeleton, like that of almost all murderers, proclaims that the body it supported during life was more than usual of the earth, earthy. It is that of a miserable, semi-witted deformity, who in charity should have been put into an asylum as beneath revenge, and as utterly incapable of exciting so grand a passion in wise men.

(To be continued.)

GENERAL CORRESPONDENCE.

THE EXHIBITIONERS' COMMITTEE *v.* THE COUNCIL OF THE ROYAL MEDICAL BENEVOLENT COLLEGE.

LETTER FROM MR. H. BURFORD NORMAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—As a constant reader for many years past of your valuable Journal, I have been very often highly gratified with the tone and spirit of your Leaders when they have touched upon those questions which affect the dignity, character, and welfare of our Profession. But never have I been more pleased than by that of this week's number, in which, with uncommon clearness and vigour, combined with a most gentlemanly tone and spirit, you have exposed the facts of the case of the Exhibitioners' Committee *v.* The Treasurer and Council of the Royal Medical Benevolent College. The time is come when all who subscribe towards the funds of that noble Institution must, like you, throw aside all needless delicacy, and seeing that the promises of the founders have not yet been fulfilled, and that one of the most important of the original purposes of the school remains unaccomplished, so that the poorer members of our body cannot obtain for their sons that good and cheap education there which they have a right to expect, must fearlessly lay the blame, as you do, on the right shoulders, and steadfastly combine to obtain redress.

The grievance is no small one; and, judging by the past, it will not be one easily got rid of. Taking the cost of a boy's maintenance on plain, good, and substantial food, such as we should give our own boys at home, we know that that can offer no reason why an Exhibitioner should not get his board and education at Epsom at £26 per annum. No boy in a large establishment eats, drinks, and wears out goods to that amount; and every master of an establishment or father of a family is well aware that these items do not absorb anything like that proportion of his yearly expenditure. Yet, if I understand the constitution of the College and of the class of Exhibitioners, this is all, or nearly so, that can be demanded or expected of the Exhibitioners. The subscriptions and donations to the College make up an income which will meet the other expenses. To say that each Exhibitioner is at present costing the Institution £40 1s. 9d. per annum, as the Secretary of the College in his letter to Mr. Kesteven asserts, is, we all know, an utter fallacy. No honest calculation could have produced those figures, unless there is fearful extravagance in the management of the College. Twenty pounds per annum would be much nearer the truth, if the funds are rightly managed. I do hope, Sir, that you will continue to lend a hand, as heartily as you do this week, in aid of the efforts of the Exhibitioners' Committee. That is a Committee of men, *sans peur et sans reproche*, well worthy of our fullest confidence. At a great cost of time, labour, and money, they have been, for years past, seeking justice at the hands of the Treasurer and Council, and, with great forbearance, have waited to see if they could get it. All has been, thus far, in vain; but it is not possible that efforts such as theirs can fail, eventually. They are intent on a good business; they have honour, justice, truth, and charity on their side. They must succeed, and earn the thanks of the Profession, as well as my old friend the Treasurer has already earned them for his original conception of the College, and for the marvellous zeal, energy, and cost of all sorts to himself and family, with which he gained for it the ear and heart of the public and the Profession. I

know something of these, and never wish them to be forgotten or lost sight of for a moment. But I say, without hesitation, that the idea had better have never entered his head—the zeal, energy, and cost of its promulgation had better have been all spared, than that the College should fail to be the blessing which it was intended to be to the poorer members of the Profession, and its managers lie under the stigma of bad faith with the public. I shall be exceedingly glad if the Exhibitioners' Committee will add my name to their number, if, whilst living at a distance from town, I can help them: they shall also have my hearty co-operation in the matter of funds.—I am, &c.,

H. Burford Norman.

Portland Lodge, Southsea, Dec. 23, 1863.

MR. SYME'S DISPARAGEMENT OF EDINBURGH MEDICAL GRADUATES.

[To the Editor of the Medical Times and Gazette.]

Sir,—As the opinions lately expressed in Edinburgh by Professor Syme, upon modern Medical education, have now received the utmost publicity by their publication in the *Times*, I think it right to come forward and defend the Medical graduates and students of my University from the consequences that certain erroneous statements will necessarily entail, if uncontradicted.

Mr. Syme proposes to reform the whole system of training for the Medical Profession. He tells us that his qualifications for this office consist in his "having been engaged in teaching Anatomy or Surgery during the long period of forty years, together with the nature of his clinical duties, which, by establishing an intimate relation with students, has enabled him to become well acquainted with their feelings and difficulties."

With all deference to these qualifications, I would merely remark, that Surgical students are, of all others, the most imbued with veneration for the practical parts of the Profession, and that they come in contact with Mr. Syme, as an Edinburgh University teacher, at a period of their curriculum antecedent to that in which they study the application of scientific principles in the practice of Medicine. Hence, I consider it vain to gather data as to the effects of Medical education from such a class of students, and it is of these alone that he has had experience as a teacher for forty years.

Mr. Syme, speaking from his own knowledge, of which he only can speak, describes the Edinburgh student as "listless in his demeanour, and brooding over his impending fate" at examinations, and that he thus passes through his studies to undergo examinations which are no test of his Professional attainment, "with a no less loaded memory than unfurnished mind, to join the ranks of mediocrity, beyond which it is difficult to aspire with success under the present system of Medical education" at the University, of which he has personal knowledge.

As a recent graduate, I have read this with no less indignation than surprise.

According to my experience of Edinburgh students, the statement is not true in fact as to the average of students, and can only apply to those whose powers of acquiring knowledge are already below mediocrity. Moreover, it is incredible that the Medical faculty of the University of Edinburgh should year after year issue documents to the effect, that after careful examination of candidates they have found them qualified, and empower them to teach and practise Medicine, and call upon students to appear before them, and announce that their merit has been great in the examinations.

Mr. Syme can speak as to his own conduct as an examiner and the effect of his examinations; but I must protest against the imputation which he throws upon the merits of the examiners and examinations in general as an unjust disparagement of the graduates of Edinburgh.

Further, Mr. Syme insinuates, if he does not distinctly affirm, that this degraded academic condition of the Edinburgh student and graduate is due to the present defective methods of teaching there. He states that he "approaches the subject of teaching with the consciousness of being about to tread on tender ground, but, knowing that his opinions on this subject are the mature result of long and careful observation, he feels no scruple in freely expressing them." What, then, is the result of his observation of his colleagues?

That "some of them, making the duties of instruction subservient to the gratification of their own self-esteem, or the indulgence of peculiar fancies, not only misspend the time of their pupils, but withdraw their attention from the true path that leads to eminence."

Having had more experience than Mr. Syme of the teaching of his colleagues, as he has probably heard few of them lecture, and I have heard them all, I can positively affirm that this, also, is contrary to fact; and I can appeal to the experience of hundreds of my fellow-students and graduates whether they have ever heard one word of homœopathy fall from the lips of the Professor of Pathology, whose personal preferences for that narrow system of Medicine are no secret.

Nor does the statement, true enough in itself, as to the great extension of every branch of Medical science, warrant the assertion, that the mind of the Edinburgh student is loaded with details; on the contrary, as Mr. Syme must be well aware, their attention is directed to principles even in examinations, and this necessarily from the fact, that the development of a science renders the study of it more feasible and valuable by reason of the generalising principles of classification which become available to teaching.(a)

Even in the teaching of the Practice of Medicine, the last to benefit by generalisation, this is the case; therefore I need hardly say that Mr. Syme's assertion, that "the Professor of the Practice of Medicine has placed in the hands of his pupils a printed list of no fewer than 800 fevers!" is utterly unfounded on fact, as all Dr. Laycock's students must know. The printed list referred to is an etiological nosology of both fevers and inflammations, corresponding to the "pyrexiæ" of Cullen, but strikingly more simple, brief, and comprehensive.(b)

By this syllabus, Dr. Laycock has rendered the study of fevers and inflammations less difficult in spite of the extended knowledge of the subject which we now possess. It is a singularly happy instance of the benefits to be derived from the employment of generalising principles. Thus, by placing such a syllabus in the hands of his class, Professor Laycock used to dispose of the whole subject of fevers and inflammations in the course of some ten or twelve lectures; whereas, one of his predecessors in the chair, Professor James Gregory, occupied an entire winter session in lecturing upon fevers.

All these lamentable mistakes and misrepresentations, so disparaging to the Edinburgh school and Edinburgh graduates, evidently arise from the peculiarities of Mr. Syme's own mental character.

Eminent in his art as a Surgical *artisan*, it would be ludicrous to compare him, as to scientific research and attainments, with Surgeons like John Hunter, Charles Bell, Benjamin Brodie, or James Paget. To these Mr. Syme makes no pretence. He ignores the use of the stethoscope; and if the practice of ovariotomy, iridectomy, excision of the knee-joint, acupressure, and similar operative procedures, be taught to the students of Edinburgh, they are not indebted to Professor Syme.

When, therefore, he attempts to set all the world right on Medical education, there can be no harm in reminding him of the sage maxim—"Ne sutor supra crepidam."

I am, &c.,

An Edinburgh Graduate.

London, December 23, 1863.

PROFESSOR TAYLOR'S EVIDENCE IN THE CASE OF ELIZABETH WATERER.

[To the Editor of the Medical Times and Gazette.]

Sir,—As an old lecturer on Forensic Medicine, I cannot help thinking that Dr. Taylor owes to his Medical brethren some more precise explanation of his views, concerning the cause of the death of Elizabeth Waterer, than he gave to the jury who found Joseph Mahaig guilty of her murder at Guildford.

Every one who has had ever so little experience in the

(a) As is shown by the directions issued in the *University Calendar* by the Medical Faculty to undergraduates: thus, the subjects of Chemistry, Botany, and Natural History are restricted as follows (p. 115, *University Calendar*, 1863):—1. *Chemistry.*—A knowledge of the general laws of affinity and equivalents will be required. There must be a general acquaintance with the chief chemical properties of the more common elementary bodies and their compounds, etc., etc. 2. *Botany.*—Organography, the physiology of the reproductive organs of plants, the natural system of classification of De Candolle, and the natural orders of Calycifloral Dicotyledons, etc., etc. 3. *Natural History.*—The general principles of zoological classification, the general morphology of all the primary groups of the animal kingdom, etc., etc.

(b) This list is now open to public criticism, since Dr. Laycock has lately published it in the second edition of his "Principles of Medical Observation and Research," under the head of "Pyrectic Diseases."

courts of law will have learned, that the "marvellous accuracy" with which it is usual to credit the reporters for the daily press, does not characterise the ordinary reports of scientific evidence. It may, therefore, well be that we do not possess a trustworthy account of Dr. Taylor's evidence. In this event the Profession will be glad to have the deficiency supplied from the only authentic source. As the case stands, we are to assume that Dr. Taylor did not concur in the testimony of the two "local Surgeons"—as they are styled—which favoured the hypothesis, that the woman's death was due to strangulation; but pronounced a positive opinion that her death was due to poisoning by strychnine. Now, I will not dwell upon the evidence of Messrs. Phillips and Sells, the "local Surgeons," strong as it is, if not quite conclusive, in favour of the strangulation theory, further than to observe that these gentlemen spoke from examination of the body in a recent state, which Dr. Taylor did not. Why Dr. Taylor rejects the idea of death by strangulation is not the question; but how does he come to the conclusion that death was caused by strychnine? We have usually three sources of information as to the action of poisons. These are—1, the symptoms manifested during life; 2, the appearances left in the tissues and fluids of the body after death; 3, the detection of the poison by chemical analysis. Upon which of these does Dr. Taylor rely? He admits that he could not detect the strychnine by chemical tests; he tells us nothing of any characteristic alteration of tissue or fluid; no one saw the woman in her last moments. Where, then, is the evidence of poisoning by strychnine? The case differs entirely from that of Cook, in whom the physiological action of the poison was clearly observed. The failures of the post-mortem chemical analysis in that instance was of little moment. The reaction of the living body under the influence of strychnine is a test which, for certainty, cannot be rivalled in the laboratory. But where we have neither physiological nor chemical evidence of the presence of strychnine, from what other quarter can evidence come? I mean, of course, evidence of a scientific character, such as may properly be expected from a Medical jurist. That the woman bought strychnine, and had written letters expressing her intention to commit suicide, may be very good facts for a jury, but they are quite beyond the pale of Medical reasoning.

If Dr. Taylor possesses any means of a scientific character, yielding proof of poisoning by strychnine, other than the physiological test, or the chemical detection of the poison, the Profession will look for his exposition of them with all the interest which a discovery so important cannot fail to excite.

I am, &c.,

December, 1863. DUBITANS.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, December 24, 1863:—

Alfred Square Cooke, Gloucester; Paulin Martin, Abingdon, Berks; Thomas Theodore Steward, Wolverhampton; William Hanks, Snaith, Yorkshire; Samuel Edward Walker, Warwick; John Robert Ruddock, Leeds; William Henry Disen Meuce, Cambridge; Nathaniel Levett, Grosvenor-place School; Philip John Simpson, Gower-street, Bedford-sq.

The following gentlemen also on the same day passed their First Examination:—

David Webster Tomlinson, St. Mary's Hospital; Josiah Paull, St. Bartholomew's Hospital; Charles Edward Martin Shaw, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

CHAMBERS, T., M.R.C.S. Eng., has been elected Assistant-Surgeon to the London Surgical Home, Stanley-terrace, Notting-hill.

HAYWARD, SIDNEY, M.D., has been appointed House-Surgeon to the Huntingdon County Hospital.

JORDAN, ROBERT C. R., M.D. Lond., has been appointed additional Honorary Medical Officer to the Birmingham and Midland Free Hospital for Sick Children.

OLDMAN, JOHN, M.R.C.S. Eng., has been appointed Honorary Surgeon to the Huntingdon County Hospital.

ROBERTS, R., M.R.C.S. Eng., has been elected House-Surgeon and Dispenser to the West Kent General Hospital, Maidstone.

SMITH, J. W. F., M.D., has been elected Physician to the Royal Infirmary, Aberdeen.

THURSTON, E. WHITFELD, L.R.C.P. Lond., has been appointed House-Surgeon to Guy's Hospital.

DEATHS.

BOOTT, FRANCIS, M.D. Edin., at 24, Gower-street, Bedford-square, W.C., on December 25, aged 72.

BOWEN, SIMON S., M.D. St. And., at High-street, Tewkesbury, on December 7, aged 87.

FRESHFIELD, PHILIP W., M.R.C.S. Eng., at West-street, Harwich, on November 30, aged 67.

GRIFFITH, J., M.R.C.S. Eng., at Bangor, North Wales, on December 18, aged 29.

POW, ANDREW, M.D. Edin., at Dundas-street, Edinburgh, on December 16.

SMYTHAN, GEORGE, M.D., at Canaan-park, Edinburgh, on December 25, late of the Bombay Medical Board.

WHEELER, CHARLES W., Surgeon, at Shirley Lodge, Hants, on December 26, aged 72.

A NEW MEDICAL SOCIETY.—A society has been formed by the students and resident staff of the London Hospital for the purpose of discussing Professional subjects. The meetings are to take place weekly.

THE PARIS FACULTY OF MEDICINE.—M. Pajot has been nominated Professor of Midwifery.

SIR RODERICK MURCHISON.—The Cuvier Prize of the Academy of Sciences has been decreed this year to our distinguished countryman.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A paper on "Rupture," by Mr. J. Wood, of King's College, is unavoidably postponed until our next number.

A Constant Reader.—We believe he would be liable to a criminal prosecution.

G. H. K.—Consult any respectable Physician or Surgeon.

Tyro.—A solution of 1 to 2 per cent. of chromic acid in water is a very good and cheap preservative solution for anatomical or pathological specimens.

Dr. M.—Mr. Collis was the operator in the recent case of ovariotomy at the Meath Hospital, Dublin. We regret to learn that a low form of diffuse peritonitis set in, and proved fatal.

Oculist may learn from Mr. Wilde's last report that "the greatest number of blind in Ireland was in Munster, where the proportion was 1 in every 596 persons; next in Leinster, where it was 1 in 872; then in Ulster, 1 in 1052; and least in Connaught, where it was only 1 in every 1078 persons. Amongst the cities, the largest proportion existed in Limerick and Waterford; in the former it amounted to 1 in 371, and in the latter 1 in 416."

Rusticus.—The Léporide is said to be a real cross between rabbit and hare. It was obtained by M. Lépel-Coricter, who gave it that name. The animal is said to be of remarkable fecundity, and its flesh to be like that of rabbit, with a slight flavour of hare. If the existence of such a cross should seem to our correspondent to be an absurdity—"contrary to established laws regulating the properties of species"—we can only regret the fact, but cannot alter it. We would merely ask our correspondent, in all humility, when he talks with such precision about *laws*, where do such laws exist?—and who found them out? If there were a revelation from heaven to the effect that the offspring of no several species could be prolific, and that if a cross were prolific it could not be between different *species*, there would be something in it; but the so-called *law* is only a human inference from imperfectly-ascertained facts. Our correspondent should write to M. Rufis de Lavison, Director of the Garden of the Society of Acclimation, Bois de Boulogne, Paris.

Questionable Advertisement of University College Hospital.—A correspondent calls our attention to the following. It is a remarkable document as illustrating the financial position of the Hospital, and is certainly in questionable taste; though we are bound to add that it is very improbable that the Medical officers have any share in the offence:—

"SPECIAL APPEAL.—The Committee of the University College Hospital make an urgent Appeal to the public for increased funds. They spend annually about £7000, and they receive in annual subscriptions less than £1000. In spite of strenuous special efforts there is a large annual deficit. Already the relief afforded is considerably below the capacity of the Hospital, and the Committee are most anxious that its usefulness shall not be still further impaired by want of public support. They appeal to the benevolent for a share of the gifts which distinguish the season, for several reasons.

"1. Their great need of aid.
"2. *The great comfort of the sick wards (!)*
"3. *The excellence of the nursing (!)*
"4. *The eminence of the Medical officers (!)*
"5. The immense population which surrounds the Hospital.
"6 The danger of depriving the poor of that population of some of the

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relief now afforded. A subscription to a Hospital is not only an act of benevolence, but the payment of a debt, as the eminent skill of the Physicians and Surgeons of the wealthy is due in very large measure to the opportunities of thorough study which these institutions have afforded."

Lithotomy at St. Bartholomew's.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—It is stated that the sum of £120 a-year is paid to the Surgeons of St. Bartholomew's Hospital specially for the performance of the operation of lithotomy. Many years ago it is said that the Surgeons took it by turns, for a season, to do all cases of lithotomy *while their hands were in*. Is this correct? And might it not be a good thing for Hospital patients and for students if certain operations were confined to a few Surgeons?

Hull, December 26. I am, &c. Ignoramus.

The Crawley Court-Martial.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—So it appears, by a short notice in the *Times* of the result of this court-martial, that Colonel Crawley is acquitted, but that, as John Bull must have some victim to appease his indignation at the death by slow torture of poor Lilley, some officers (who had nothing to do with Lilley's death) are to be sacrificed on account of the way in which they gave evidence! Of course, on the principle of the weakest to the wall, the Medical witnesses may be expected to be made tubs to the popular whale.

All the Profession is indebted for the masterly articles in defence of Surgeons Turnbull and Barnett that have appeared in the *Medical Times and Gazette*. Doubtless you will not let it drop. Just please to ask how the alleged misconduct of a witness in December can have to do with a death last May; and how an erasure of an entry about Sergeant Wakefield can be made an apology for the death of Sergeant Lilley?

I am, &c. Alpha.

The Plea of Insanity.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—If Townley is let off on the plea of insanity, I hope an equal measure of justice will be accorded to John Green, the unfortunate man who lies under sentence of death at Cambridge for murdering Elizabeth Brown. Observe the parallelism of the two cases. Each has insanity in some remote collateral ancestor; who has not? I defy you to find any one without a mad great or great-great uncle, if he have such a relation. Each acted without premeditation. Neither would have murdered his victim if she had yielded to his wishes. The impulse to kill was not inherent, like a maniacal furor, but contingent. Townley was the worst, for death resulted from a blow that could only murder. Green did not intend murder, but injured his victim in a struggle, without intent. As for after conduct, I see nothing to choose between a man who tries to burn a dead woman and one who drinks tea with her grandfather. However, Townley's relations are people of consideration; Green's are poor devils, and, therefore, it serves them right. I am, &c.

December 29. F.

Education for the Sons of Medical Men.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Your editorial article on the "Royal Medical Benevolent College" in your last number must meet the approval of a large portion of those who have contributed to the existence of that well designed and noble institution. My present purpose is not to criticise the management of the College, but simply to inform my brethren who may be in quest of a school in which they can have their sons conscientiously and thoroughly grounded, efficiently prepared for active life or for the higher colleges, well fed, kindly treated, and gently trained, for £30 per annum, that I shall be happy to give them the address of the establishment at which two of my sons are now placed to my entire satisfaction.

A note addressed to M.D., North Brixton Post-office, shall meet with an immediate response. I am, &c.

December 23. Medicus.

Symm *v.* Fraser and Andrews.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The Profession has so unequivocally and handsomely expressed its sentiments respecting the above iniquitous prosecution, that I most unwillingly trouble you with any reference to it; but, in justice to my co-defendant and myself, I cannot allow to pass unnoticed a letter which appeared in your last number from Dr. Tunstall, of Bath, in which he states that the evidence he gave theoretically was confirmed practically by the defendants. This is certainly "the unkindest cut of all," making it appear that we confirmed evidence which I have not heard spoken of, in or out of the Profession, except in terms of ridicule and grave censure.

Dr. Tunstall stated in evidence that he first visited the patient on January 24, 1862, at 10 p.m.; that he found her in a very nervous, excited condition, complaining of pain in her leg, and oppression of the chest; he stated that at first he had a suspicion in his own mind that the excitement he saw might have been produced by drink, but that, on inquiring whether she had taken any, she said—"No." Dr. Tunstall further stated in evidence,—"I then proceeded in my investigation, and I am perfectly of opinion that all the symptoms I saw might have arisen from *travelling* gout." Dr. Tunstall added that he saw her at 10 a.m. on the following morning, when she was much better, and left Bath. Now, Sir, this theory of "travelling gout" was one of the strongest points which Mr. M. Chambers dwelt on in his address to the jury, whom he endeavoured to make believe that the state of drunken, ungovernable excitement in which the patient was, during my sixty hours' attendance on her, was produced by "travelling gout." So far, therefore, from confirming Dr. Tunstall's hypothesis, I believe it to be as visionary and baseless as any ever invented by counsel, to "make the worse appear the better cause;" and I cannot help designating his conduct as most cruel, in bringing forward a wild theory, and thereby aiding a weak-minded, vindictive, and ill-advised woman in her endeavour to injure those who had humanely befriended her. The "very nervous, excited condition" in which Mrs. Symm was when Dr. Tunstall saw her, is fully accounted for by the evidence of numerous trustworthy witnesses, who deposed to her suffering from delirium tremens, and being intoxicated for days together during the latter part of December, 1861; also by the evidence of Dr. Barnes, who, on his last visit in January, found her "in a state of helpless intoxication." Mr. Barrett, who attended the patient in Bath from January 12 to 21, and who appeared as a witness for her, somewhat reluctantly, but candidly said he was bound to state his impression as to her being in liquor, and as to his directions respecting her refraining from drinking being unattended to.

On January 22, Mr. Bond, inspector and clerk of the police at Bath, visited the plaintiff, and found her, as he more graphically than elegantly described, "looking like a woman who had been on the spree for a week, her memory gone, talking incoherently;" and as this was on the next day but one preceding Dr. Tunstall's visit, it would be somewhat surprising if he found her otherwise than in "a very nervous, excited condition."

As to Dr. Tunstall's account of his morning visitor with a £5 note and subpœna, I could found a plausible theory on the circumstance, but shall refrain, merely remarking that it is an unusual occurrence for a Medical witness to be called on to give evidence, without the individual in whose favour he is to appear first ascertaining what that evidence is likely to be. It is, moreover, a remarkable fact, that from the commencement of the recent proceedings my solicitor has repeatedly told me that there were to be two Medical witnesses from Bath, on whose evidence the plaintiff principally depended for a verdict in her favour: who those witnesses were, we could not ascertain until we saw them in the witness-box. Apologising for trespassing so much on your valuable space.

I am, &c. D. Fraser, M.D.

15, Harrington-square, N.W., December 29.

COMMUNICATIONS have been received from—

Dr. E. W. Thurston; Obstetrical Society; W. B. Murray, Esq.; Professor Rolleston; Harry Lobb, Esq.; Harveian Society; J. R. Peel, Esq.; Dr. Dickson; J. Hildige, Esq.; J. Jeffreys, Esq.; Mr. Hitchman; Dr. Tilbury Fox; John F. South, Esq.; E. Grundy, Esq.; Apothecaries' Hall; Medical Society of London; F. D. Fletcher, Esq.; Dr. Devenish; Messrs. Debenham and Storr; Medicus; Rusticus; An Advertising Dentist.

BOOKS RECEIVED.

The Sanitary Condition of Gloucester and its Vicinity. By Dr. Washbourn. 1863.

*** This report is entirely devoted to points of local sanitary interest, which would prove of the highest value in a comparative survey. The writer, however, takes occasion to show that "lavish expenditure" upon matters relating to public health, means, likewise, a diminished amount of illness, and, by consequence, a diminished amount of taxation in the garb of poor-rates.

Coxeter's Catalogue of Surgical Instruments and Apparatus. London. 1863.

*** An excellent compendium, containing not only the usual appliances for operative Surgery, but information as to splints, bandages, and the necessary conveniences for the sick room. The woodcuts are particularly neat and comprehensible.

The Useful Knowledge Society's Family Atlas. Parts I. and II. London: E. Stanford. 1863. To be completed in twenty Parts, at 2s. 6d. each.

*** Remarkably cheap. For 50s. we are promised eighty good maps, corrected to the present date; amongst them, geological maps of England and Wales, revised by Sir R. Murchison, and of the stars by Sir John Lubbock. Whoever does not possess a good family atlas should think of this one.

Military Surgery. By George Williamson, M.D., Surgeon-Major 64th Regiment. London: John Churchill and Sons. 1863.

APPOINTMENTS FOR THE WEEK.

January 2. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

4. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

Medical Society of London, 8½ p.m. F. W. Mackenzie, M.D., "On Retroflexion of the Gravid Uterus, with especial Reference to its Occurrence in the latter Months of Pregnancy."

Odontological Society. Anniversary Meeting.

5. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Anthropological Society of London, 4 p.m. General Anniversary Meeting.

Pathological Society, 8 p.m. General Meeting for Election of Officers.

6. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.

Obstetrical Society of London, 8 p.m. Annual Meeting for Election of Officers, &c.; Papers by Dr. Day and Dr. Grailly Hewitt.

7. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; Royal Free Hospital, 1½ p.m.

Harveian Society of London, 8 p.m. Anniversary, President's Address, Election of Officers, and Conversazione.

8. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

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ORIGINAL LECTURES.

CLINICAL LECTURES ON THE DISEASES OF WOMEN,

By J. Y. SIMPSON, M.D., F.R.S.E.,
Professor of Medicine and Midwifery in the University of Edinburgh.

ON ACUPRESSURE.

(Continued from page 4.)

WHEN SHOULD THE NEEDLES BE WITHDRAWN?

Much more investigation and practice are requisite before this and some other questions regarding acupressure can be definitely answered. We want, for example, a series of proper experiments and observations as to the actual pathological mechanism by which acupressure occludes the mouths and tubes of arteries before we attain fixed ideas as to its progress and completion. But we know from clinical experience that a comparatively short time usually suffices, the period being varied by the size of the vessel. The largest arteries divided have been found closed within fifty hours; those of medium size in twenty or thirty hours; and those of small size sometimes within a couple of hours.

The largest artery opened in operative wounds is the femoral. In several instances of amputation of the thigh, the femoral has been closed by acupressure needles. Dr. Struthers was the first Surgeon who had the boldness to apply acupressure to the femoral in an amputation of the thigh. The case – a very dangerous instance of traumatic spreading gangrene following a machinery accident – succeeded perfectly. Dr. Struthers did not remove the needle from the femoral till the fourth day, or about ninety-eight hours. In a successful amputation of the thigh, also for traumatic spreading gangrene, Dr. Handyside removed the needle over the femoral in forty-nine hours.

In the following instance of amputation of the thigh for chronic pathological disease, performed by Mr. Crompton, Senior Surgeon to the General Hospital, Birmingham, the needles were left for fifty-two hours:—

Case 1.—*Amputation of the Thigh for Scrofulous Disease.—Needles Removed in Fifty-two Hours.*—On February 29, 1860, Mr. D. Crompton amputated a young man's thigh, for strumous disease in the femur, and consequent degeneration of the cartilages of the knee-joint. Two acupressure needles sufficed to arrest the bleeding, one of them pressing on the femoral artery, and the other pressing upon two small muscular branches. After fifty-two hours, the needles were all withdrawn. On March 29, or exactly four weeks after the operation, Mr. Crompton sent me a cast of the stump, with a note, stating that the young man was then quite well. In this case no rollers or plasters, nor, indeed, dressings of any kind, were applied to the stump.

In the following case, reported to me by my friend and former pupil, Dr. Hamilton, the needle was removed from the femoral artery after forty-eight hours. The case occurred in the practice of a very able young Surgeon—Mr. Brown, of Carlisle.

Case 2.—*Thigh Amputation and Primary Union—Needles Removed in Forty-eight Hours.*—The patient was a man of 50 years of age, and had suffered for two years from ulceration of the cartilages of his left knee-joint. Two sinuses connected with the joint were discharging profusely pus of a very offensive character. The poor man was reduced to such a state of emaciation and debility, that when he came down from near Carlisle to Edinburgh for the purpose of undergoing amputation, one of our most distinguished Surgeons refused to undertake the responsibility of operating. He, therefore, returned to Carlisle, where amputation was performed by Mr. Brown, after Teale's method, at the lower third of the thigh, and five bleeding vessels were acupressed. Forty-eight hours after the operation all the needles were withdrawn. Primary union took place throughout, except at a single spot where one of the sinuses, already alluded to, had been cut across. The patient was able to be dressed and down-stairs within four weeks, and in six weeks he was driving out alone in his gig daily; his general health good, and his strength rapidly returning.

The preceding case is taken from an interesting series of nine or ten examples of the use of acupressure in the larger amputations, &c., kindly drawn up at my request by Dr. Hamilton, House-Surgeon to the Carlisle Hospital. Out of the amputations which he details in his report, let me cite another instance of healing by the first intention.

Case 3.—*Primary Union after Amputation below the Knee.—Needle Removed in Forty-eight Hours.*—A boy, of eleven years of age, was brought into the Carlisle Infirmary with compound comminuted fracture of the tibia and fibula, from two railway waggons having passed over his leg. Amputation was performed below the knee by Mr. Page, and the anterior tibial artery—the only vessel requiring interference—was secured by an acupressure needle. It was withdrawn after forty-eight hours. The flaps adhered by first intention from end to end, and the boy made a very speedy recovery.

Perhaps, in this instance, the needle might have been safely removed earlier than it was; but it is of still more importance to remark that its continuance did not prevent primary union. In a case of amputation of the arm, in a girl of fifteen or sixteen years of age, which I witnessed some time ago, the needles were all withdrawn within twenty-two hours. The operation was done by Mr. Edwards, who has tried acupressure in more instances, I believe, than any other Surgeon. But let me quote to you Mr. Edwards' own account of the case, which, to my view at least, at first looked a most unpromising case for recovery at all:—

Case 4.—*Amputation of the Left Arm, and Needles Removed in Twenty-two Hours.*—The patient had been suffering for two years under scrofulous disease of the elbow-joint, apparently set up by an injury. "Latterly (says Mr. Edwards) she had suffered severe pain, and moving the limb was scarcely possible. When I saw it, the elbow was packed in large, heavy poultices, the weight of which had, during some moment when the arm was left unsupported, broken the humerus about two inches above the joint. The fractured ends threatened to pierce the skin. The joint was evidently disorganised. She was not a favourable subject, being thin and feeble; a large swelling, apparently a chronic abscess, over the left side of the thorax; but she was suffering so acutely from the fractured arm, that I thought it my duty to amputate, which I accordingly did the next day, having to go close under the tuberosities, so as to secure tolerably healthy soft parts. All the vessels, including the brachial, were secured with needles and wires by Professor Simpson; they effectually prevented hæmorrhage, and were all removed in twenty-two hours; the flaps adhered, and, except a little pouting at the skin margins, the stump was healed in five days; on the fourth she was out of bed, and was able to walk to my house on the eighth day."—(See *Medical Times* and *Gazette*, April 11, 1863.)

I have mentioned, in the three preceding instances, three cases of amputation wounds where the vessels were acupressed, and healing of the stump, followed by primary union. The three cases in question were instances of amputation of the thigh, of the leg, and of the arm. As another instance of union by the first intention, let me select an example of amputation of the forearm, from the practice of Dr. Greig, of Dundee, who was among the first Surgeons that used acupressure:

Case 5.—*Amputation of the Forearm.*—In a case of injury Dr. Greig preferred amputation at the middle of the right forearm, and secured the bleeding vessels with ease and success by acupressure. Little or no local irritation followed, and the wound healed entirely by the first intention. This was the second case of amputation in which he employed acupressure. He removed the needles early, I believe; but I have no note of the exact hour. Dr. Greig, as one of the Surgeons selected and sent out to the East during the Crimean war, as a diligent observer when a student, and as Surgeon to the Dundee Hospital, has necessarily seen many amputations; but latterly he wrote me that this case formed the first amputation wound which he had ever really seen close entirely by union by the first intention. The patient—a stonemason—was soon back to his work, and had the mallet so fitted as to enable him to go on perfectly with his trade.

Wounds of smaller arteries may, as I have already said, be successfully occluded by pressure of still shorter duration. And, perhaps, as I have often ventured to suggest, the time may come when, in minor operations and amputations, the Surgeon will wait six or twelve hours before closing the lips of his wound by metallic sutures, and be able to withdraw, before he does so, most, if not all, of the acupressure

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needles which he has employed. If so, he would be able to close the sides of his wound without any foreign body whatever being left between them. In the following instance, my friend and former assistant, Dr. Coghill, now of Shanghae, acted successfully upon this principle.

Case 6.—Excision of the Mamma—Needles Removed in Two Hours.—The patient was a very stout and bulky Highland woman. There was a large cancerous tumour in one of the mammæ. In removing it Dr. Coghill was obliged to make a wound of eleven inches in length. Three or four vessels bled, and were occluded by acupressure needles. Dr. Coghill left the wound open for about two hours. Before closing it he removed the needles, without there following any appearance of hæmorrhage. He then, very carefully and accurately, brought together the lips of the wound with stitches of iron-thread. Complete and entire union by the first intention ensued.

In his treatise on "Diseases of the Breast," M. Velpeau has made, in reference to primary union of the wound after excision of the mamma, a few remarks, which are not perhaps uninteresting in regard to such a result as the above. In one part of his masterly work, he speaks of having excised the mamma for cancer alone (independently of other non-malignant tumours) in about 130 instances. These all occurred in Hospital practice; and of course he has often operated in private practice also. Yet in only four or five instances has he observed the resulting wound to heal by the first intention; and in these few exceptional cases *no ligatures* happened to be required. Their accidental absence permitted, as it were, primary union to occur. "Should (to use Velpeau's own words) immediate re-union and complete cicatrisation by the first intention occur, so that the wound closes without suppuration, we have every reason to be delighted; but this circumstance is so rare, that I have only witnessed it on four or five occasions, twice in men, three times in women; in all instances, after the removal of small tumours, and in patients who were somewhat thin, where there had been *no necessity for ligatures*, and where the wounds were perfectly even and of small extent. Except under these circumstances, I have usually found the wound to suppurate, so that it almost always required from three to five weeks before cicatrisation was complete."—(See "Velpeau on Diseases of the Breast," Sydenham Soc. Edit., p. 528.) In these four or five instances of apparently small mammary wounds, primary union was the result, probably, as I have already suggested, merely because it happened as a matter of accident that no arterial ligatures were necessary. In Dr. Coghill's case, the mammary wound was unusually long and large, and yet primary union was the result, because it was regulated as a matter of art that no ligatures were used, and that the wound was in a short period after its infliction closed, without any foreign body whatever being left lodged within its cavity or between its walls.

Local Requisites for the Primary Union of Wounds.

Such cases as I have latterly cited might possibly lead some of you to imagine that, in the way of the local management of wounds, acupressure was all that was requisite to ensure that desirable object. Any such inference, however, would be most erroneous. The closure of extensive wounds in which acupressure is used to arrest the attendant hæmorrhage, is still the exception and not the rule. It is one of the elements, and, as I believe, a very important and very necessary element, in our attempts to effect primary union; but there are other elements and circumstances which must also be most carefully attended to. The sides or flaps of the wound must, if we expect primary union of them, never be of a kind to require pulling and tension, either to bring them together or to keep them in apposition. If they are too small and short for this purpose, or if the stitches holding them require to be put or kept on the stretch, then union by the first intention becomes scarcely possible. Surgeons will probably come yet to shape their wounds and flaps more systematically than they do even at present, so that the sides and edges of their resulting wounds lie fully and easily in contact. If the sutures, whether metallic or silken, be placed upon the strain, they will cut through the lips of the wound by ulceration to the extent necessary to relieve the strain. When the lips of the wound are ultimately adjusted, and accurately and carefully fitted to each other, no one of the sutures must be found on the stretch and deeply indenting the points on which it rests and presses; for, if so, those points will soon become irritated and ulcerated, and the act of primary union will be more or less interfered with. But still more, when we strive for primary union, we must beware of leaving any foreign and dead materials—however small and almost molecular they may be—on the sides or in the cavity of the wound. In an amputation wound, when the saw divides the bones, the resulting dead particles of bone-dust are freely scattered all around. Any of these particles left on the surface of the wound would infallibly prevent primary adhesion at the points where they were lodged; nay, they would sooner or later set up suppurative inflammation ere they were finally discharged. They must all be carefully removed by sponging, or, still better, by a stream of water allowed to fall upon the wound; for even our sponges sometimes leave flakes and fragments of their tissue upon the surface of the wound, which, though they be minute, are still dead foreign bodies. Of course, it is needless to close up a wound and expect it to heal by primary union if you allow coagula of blood to remain lodged within it. These coagula act again as foreign bodies, both inevitably preventing present adhesion, and inevitably producing future suppuration. The wound must not be shut up till all bleeding has ceased; and to prevent the mischance of any coagula forming for the next few hours, some Surgeons do not close their wounds till six or eight hours have elapsed. In closing large wounds, particularly large amputation wounds, it is further, I am inclined to believe, a matter of great moment to bring the flaps most carefully together from below upwards, so as to preclude the possibility of a small collection or collections of atmospheric air being left in the depths or between the approximated sides of the wound. I fancy that I have seen the flaps brought together first, and chiefly along their edges, so that a quantity or quantities of air were left lodged within. Like any other foreign body which keeps the opposed walls of the wound from approximating and touching perfectly, air, even in small quantities and bubbles, will as effectually prevent primary adhesion at the parts or points at which it is located as the same bulk of dead solid materials would. Whilst it is thus a great and indispensable indication to free the surfaces of the wound from all foreign matters that can possibly prevent them coming everywhere into close and accurate contact, it is sometimes necessary, also, by the position of the wounded part—by the use, if necessary, of slight bandages, and by supporting sponges or light pads placed externally—to retain the opposed surfaces in the same close contact till they are glued together in sufficient strength by the reparative process. In other words, it is necessary, not only to place the sides of wounds in accurate contact, but it is necessary also to *keep* them thus in accurate apposition. The mere shallow cutaneous edges only of large wounds are usually brought together by the superficial stitches that are used; but if the stitches be made by metallic sutures planted so deep as to embrace the sides of the wound to a considerable extent, bandages, plasters, and dressings are very seldom required. The mere atmospheric pressure keeps the sides of a wound in contact when once its lips are accurately closed and sealed up with an adequate number of metallic sutures. And certainly the fewer local dressings and applications we require to place about a wound, the greater, perhaps, is the chance of its successful repair and reunion. I believe, in other words, that, after the sides and edges of a wound are properly approximated and adjusted with its metallic stitches, the best dressing, as a general rule, is—nothing, absolutely nothing. I have seen full and testing proof of this in the large wounds left by excision of the mamma, and by ovariotomy. We have not easily the power of applying any dressings, or ointments, or lotions to cases of vesico-vaginal fistulæ immediately after they are operated upon; and it is, perhaps, fortunate that it is so; for, probably, these vesico-vaginal wounds close by primary union with the comparative certainty, and in the large proportion which we see in practice, greatly because we are shut out from intermeddling with them, therapeutically or surgically, after they are once stitched up. We cannot overload and overheat them, as was too often done in former times, in "dressing" external wounds with complex layers of ointments, pledgets, straps, rollers, etc. Even a dressing of charpie and cold water to a recent wound is, perhaps, more hurtful than useful. It busily unmakes what nature is busily making—a crust along the edges of the closed wound. If the lips of it become red and irritated or inflamed, apply to them cold air, and you will find, as I have found, that a stream of it directed upon the wound or its vicinity from a pair of bellows will prove both beneficial locally, and most grateful to the feelings of the patient.

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Is not the Acupressure more difficult than the Deligation of Arteries?

Every new practice in the hands of the Surgeon is more or less difficult merely because it is new, and because he is not yet familiarised in the employment of it. The practical difficulties connected with the deligation of arteries, according to the somewhat clumsy modes in which it was first proposed by Paré, formed in themselves early obstacles to its introduction. But, in the course of time, the process of deligation has been much improved and simplified; and the same will probably hold true of acupressure. Other and simpler means of applying the needle than any which I have proposed will very probably be suggested by others, and consequently the process be rendered even still simpler and safer than it is at present.

In its present condition, however, the Surgeons who have tried it have found it as easy, at least, as the ligature. After using acupressure in two cases of amputation of the fore-arm, Dr. Greig, of Dundee, wrote me that he found the needles "applied quite as easily as the ligature." "The process (says he) so far as I have tried it, is *the simplest* that one can imagine. . . . . It is really surprising how very little pressure is required to stop bleeding from an artery." "In giving directions for securing the vessel, you advise the Surgeon to place the forefinger over its bleeding mouth, etc. Now, you will find it much better, when you have a flap, to keep the forefinger of the left hand on the skin side, and use the thumb. You feel the vessel beating between the thumb and the forefinger, and you *can introduce the needle in the dark.*"

In the first case of amputation in which Dr. Handyside used acupressure, he had to undertake the operation at a distance in the country, and improvised some long "darning" needles into acupressure implements for the occasion. He fixed knobs of red sealing-wax upon the heads of them to facilitate their introduction. At that time the two easier modes of effecting acupressure by common short sewing needles had not yet been thought of. But, in order to show you that Dr. Handyside found no difficulties in the application of acupressure even with the long needles, let me state in a few words his case, which was a very interesting one, and then quote the comments which he has himself published on it in reference to the question of the relative facility or difficulty of acupressure.

Case 7.—Amputation of the Upper Third of the Thigh for Traumatic Spreading Gangrene.—The patient received a very severe lacerated wound of the leg, with compound fracture of both bones, from a loaded waggon running against him down a steep incline. Gangrene supervened, and in five days afterwards, when Dr. Handyside was summoned from town to see him, he was delirious and prostrated; the mortification had reached the knee, and was spreading upwards; the inguinal glands were much enlarged, and the lymphatics of the limb tense; the pulse rapid, weak, and irregular; and the skin cold and clammy. Dr. Handyside performed amputation of the thigh immediately below the trochanters, and arrested the bleeding from four divided vessels by as many needles. Two of the vessels were relieved from acupressure at the twenty-fourth hour, and the other two—one of them being the femoral artery at its giving off of the profunda branch—at the forty-ninth hour. The swollen glands in the groin suppurated, it would seem, and the pus was partly discharged from the centre of the cicatrix, which formed at the line of union of the flaps, and partly from two incisions made through the recent adhesions by Dr. Todd. Notwithstanding all the unfavourable circumstances of this case, "the line of cicatrisation of the flaps," to use the words of Dr. Todd, "was healed by first intention," and in twenty-one days the patient was in excellent health, and had a cast of his stump taken in plaster.

The woodcut (Fig. 8) shows the shape of the resulting stump, and the directions in which the needles passed to secure the four arteries, which were the femoral (*F*), and, apparently, the obturator (*O*), and two ischiatic branches (*I*, *I*).

This, as I have said, was the first time Dr. Handyside had ever used acupressure, and yet, in his interesting published account of the case, he states:—"The performance of acupressure seems to me to be free from all difficulty." "The hæmorrhage," he adds, "from the divided vessels was arrested with greater expedition in this way than by the ligature; for, in closing the bleeding orifices by needles, I wholly dispensed with an assistant; and, in employing needles, I further effected a saving of blood, as well as of time. We may, hence, reasonably conclude that the shock to this patient's system was thereby very probably lessened, and his recovery promoted."—(See *Edinburgh Medical Journal*, for December, 1860.)

Fig. 8.

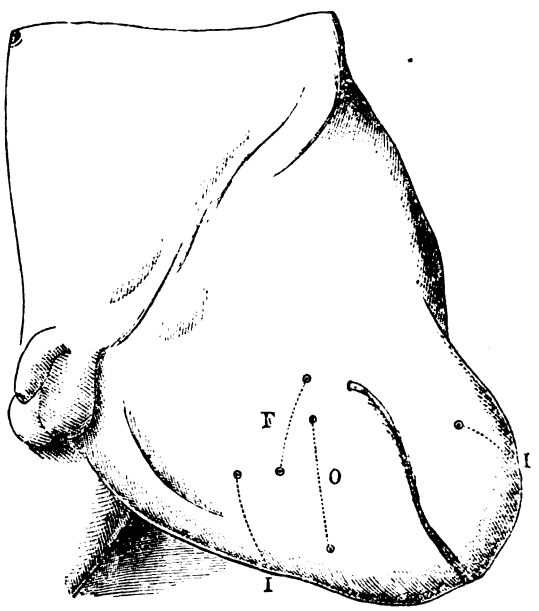

Fig. 8.—Stump after Amputation of the Thigh below the Trochanters (Handyside.)

An accomplished country Surgeon, Dr. Turner, of Leith, has had an opportunity of using acupressure in two or three amputations. "I consider (he writes me three years ago) acupressure as at once efficient, *easy of application*, and conservative; and I will never again employ the ligature where this method can be adopted." "In addition (Dr. Turner more lately writes me) to its chief recommendation, your method has other and not unimportant advantages over the ligature,—it is most easy of application, and admits of being quickly applied. It thereby saves blood to the patient, and to the operator—especially if his light be bad, as it often is with us Gideon Grays—pokings with the hot sponge, slackenings and tightenings of the tourniquet, and even exploratory cuttings with the scalpel for the source of the river, to say nothing of the loss of temper liable to occur in the course of the search with the assistant, with or without cause. I have always applied the needle in the way you first proposed, introducing it from without, passing it over the artery, and bringing it out on the other side. I was acquainted with your later mode of adjusting it before my last operation, but I had only the long needles at hand, and, to say the truth, I have found this method *so simple and efficient*, that I should hesitate to adopt the other instead."

Speaking of the two later methods of applying the acupressure needles, Mr. Edwards has observed,—"Soon after this, Professor Simpson substituted sewing needles for the long pins, threading them with wire, and applying them on the raw surface of the wound. He thus arrested the bleeding in a case where I removed a man's arm above its middle third, and after a similar operation on an infant. The adult stump healed by first intention entirely; the other almost entirely. . . . Since, Dr. Simpson has further modified the method of application by adding a wire-loop to the needle; the latter can be adjusted with *very great ease and rapidity.*"—(*Medical Times and Gazette*, February 14, 1863.)

[The third part of this lecture on Acupressure is in type, and will appear in our number for January 16.]

Pharmaceutical Society.—A pharmaceutical meeting took place last Wednesday evening, the 6th inst. The following papers were read:—"Note on the Root-bark of Calisaya," by John Eliot Howard, F.L.S.; "Note on *Cassia moschata*," by Daniel Hanbury, F.L.S.; "On Goa Powder," by David S. Kemp; "Note on the Recovery of Essential Oils from their Watery Solution," by Mr. T. B. Groves. Thompson's patent bottles, and Thonger's patent label for the prevention of accidental poisoning, were exhibited at the meeting.

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COURSE OF

LECTURES

ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D.,

Professor in University College, and Assistant-Physician to University College Hospital.

(Continued from page 5.)

As it is with the diseases of man alone that we have to do, we must now direct our attention specially to

HUMAN URINE.

The most readily observable properties of the human urine are—its colour, smell, taste, reaction, and specific gravity.

The Colour of the Human Urine.—The colour may be said to be quite characteristic, as no other animal liquid possesses a similar one. In health, it fluctuates between a pale straw and a brownish-yellow tint. It is due to the existence of a peculiar pigment—urohæmatin—and upon the relative proportion of this colouring matter and the water do all the varying tints of the healthy urine depend. Consequently, you now observe that I artificially produce from this intensely coloured urine each of the different normal shades by the simple addition of pure water. Hence, we find that, so long as the body remains in health, the larger the quantity of urine daily excreted, the paler the tint; the less the amount, the higher the colour.

Although, as I shall afterwards have occasion to show you, normally coloured urine does not necessarily exclude the possibility of disease, yet it is in general the presence of orange, red, brown, black, green, or blue urine that indicates the existence of the graver maladies. Still, even the presence of high-coloured urine, when an average amount is passed, is a sign which ought never to be lost sight of, as it invariably indicates the existence of a pathological condition of system. The import of this, like that of the other tints, will afterwards occupy our attention; meanwhile we must pass on to the consideration of the next physical condition of normal urine, namely:—

The Smell of the Urine.—Immediately after being passed from the bladder human urine has a mawkish aromatic odour. The smell of the urine is in general quite characteristic of the species of animal. All of you are acquainted with the smell of cat's urine, and I daresay most of you are equally familiar with the peculiar odour of the urine of the horse and cow. The urine in general smells like the fat of the animal; sheep's urine, for example, smells exactly like mutton suet. Many foods and drinks transmit to the urine their peculiar odour. To such an extent, too, may this be the case, that one is occasionally able, from the smell of the urine alone, to tell the kind of solid or liquid of which the patient has partaken. Thus, turpentine, copaiba, garlic, and many other aromatic substances, may be recognised in the urine. All of you must have observed what a strong odour asparagus imparts to the renal secretion. It not unfrequently happens that the mere breathing of odoriferous substances communicates their characteristic aroma to the urine, and the more delicate the individual, the more marked is this effect. The abnormal odours of the urine, such as we meet with in jaundice, Bright's disease, diabetes, etc., will each occupy our attention in its appropriate place.

The Taste of the Urine.—The taste of normal urine is saltish bitter, but the flavour varies very much in disease, being sometimes as sweet as honey—in diabetes; and at other times as bitter as gall—in icterus. In cases of urgent necessity, where the urine has been used as drink, it is said greatly to increase the thirst. Holwell, when confined in the black-hole at Calcutta, found the thirst, which proved so fatal to many, relieved by sucking his perspiration, but not by drinking his urine.

The Reaction of Human Urine.—When freshly passed the urine is slightly acid, the acidity becoming more marked during the first hour or two. According to Dr. Bence Jones it is neutral, or even alkaline, immediately after taking food, again gradually becoming more and more acid up to the time of the next meal. Although I have been unable to verify this statement on perfectly healthy individuals, I see nothing improbable in it, if the person experimented upon has partaken largely of vegetable food. The urine of dogs fed on flesh is acid, but if the animals are fed for several days on vegetable diet it becomes alkaline. The urine of rabbits, on the other hand, is normally alkaline, but if animal food be forced upon them, or better still, if for a time they receive no food at all, and are consequently obliged to live upon their own tissues, the urine becomes acid, and at the same time assumes many of the other characteristics of the carnivorous animal. It is, therefore, highly probable that diet will, in a similar way, influence the reaction of the human urine. It may be laid down as a rule, however, that if the urine of a person living on mixed diet becomes alkaline in less than twenty-four hours after being passed, there exists some disease, either of the general system or of the urinary organs, which demands immediate attention.

It must not be forgotten that many medicines—alkaline carbonates, for example—as well as alkaline citrates, tartrates, and acetates, which are converted, in their passage through the body, into carbonates, cause even the urine of healthy individuals to become for a time alkaline.

The acidity of normal urine depends on the united presence of acid phosphate of soda, uric, (b) hippuric, and lactic acids. Neither the hydrochloric nor sulphuric acids, which, as will afterwards be seen, are always present in normal urine, have any share in producing the acidity, for they are both combined with bases in the form of neutral salts. After standing for a greater or lesser time, all urines become alkaline. This arises from the urea being decomposed into the carbonate of ammonia, in consequence of a putrefactive fermentation being induced by the presence of such animal matters as mucus from the bladder and urinary passages. The carbonate of ammonia is a strongly alkaline salt; so alkaline, indeed, that putrid urine was at one time in great request for the purpose of removing grease from cloth. This property the urine entirely owes to the presence of the carbonate of ammonia, which unites with the fatty matters of the cloth, and forms an alkaline soap, readily removable by washing. The peculiar odour, so characteristic of putrid urine, is also chiefly due to the carbonate of ammonia derived from the decomposed urea.

It occasionally happens that this decomposition occurs within the frame; and hence in certain diseased states of the bladder and urinary passages the urine is alkaline at the moment of being voided, while in certain others of the general system it becomes so very shortly after being passed.

The reaction of the urine is most readily ascertained with litmus paper. Some recommend neutral paper for this purpose, as one kind does for both acid and alkaline urine; but, as you now see, the change produced in the neutral paper is very slight, whereas with the more intensely coloured papers, one of which, as you perceive, is of a distinct blue, while the other is as evidently red, no difficulty can possibly arise. The blue paper I dip into this dog's urine, the acidity of which instantly turns it red; while the red paper I dip into the alkaline urine of the horse, and, as you observe, it is as rapidly changed to blue. Soft papers are usually more sensitive than hard.

When it is deemed desirable to ascertain the exact amount of free acid daily excreted, a standard solution of caustic soda is employed of such strength, that one cubic centimetre neutralises ten milligrammes of dry oxalic acid. This solution is gradually added to a given quantity of urine until the acid reaction disappears, and the calculation for the whole quantity passed in the twenty-four hours made accordingly. (c) It has been ascertained that healthy adults daily pass, on an average, an amount of free acid equal to about 1·7 grammes (27 grains) of dry oxalic acid.

This mode of estimating the amount of free acid present in urine is unfortunately too troublesome to admit of its being generally employed at the bedside, so that we are forced to guess at the acidity of the secretion from the intensity of the stain it produces on litmus paper.

It occasionally happens that the urine is recognised as being abnormally acid from the presence of brownish-red crystals of uric acid on the bottom and sides of the chamber-vessel; for free uric acid never crystallises spontaneously, except in cases where the urine contains an excess of acid, as, for example, in febrile and inflammatory affections, especially those in which the liver, heart, or lungs are implicated.

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—ED. *Med. Times and Gaz.*

(b) Some have thought that all the uric acid is united with part of the soda, of what would otherwise have been the neutral phosphate of soda; but this is an error, as is seen by the fact, that in the most naturally acid urines the uric acid is invariably found in a free state, as is proved by its spontaneously crystallising when the urine cools.

(c) The mode of preparing and employing this solution will occupy our attention on a future occasion.

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ORIGINAL COMMUNICATIONS.

ON RUPTURE.

By JOHN WOOD, F.R.C.S.,
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ALTHOUGH the word "rupture" conveys, in some respects, a meaning which does not exactly explain the origin of the condition which it expresses, yet its cognate and more scientific term "hernia," having a wider application to somewhat similar conditions in the head and thorax, hardly suits so usefully the pathological state of protrusion of the viscera of the abdomen through its retaining walls. The use of the former word also has received the sanction of popular usage, and the recognition of some of our most eminent Surgical authorities. If we guard against the implication, that the protrusion is caused by any tearing of the tissues, and confine the word to its other meaning, of a separation of parts by force or a bursting forth, it becomes sufficiently appropriate and distinctive for all practical purposes.

In the abdomen, a visceral protrusion may occur either through a normal opening left from the transmission of other parts, or through an opening accidentally or unavoidably made, or produced by disease. Of these two ways, the former is much the most common, and the rupture is named after the opening through which it protrudes. If through the openings left for the passage of the spermatic cord in the male, or round ligament in the female, it is called *inguinal*. If through the opening left for the passage of the lymphatics of the leg into the abdomen, it is *crural* or *femoral*. If through the opening of the navel, where the vessels of the funis pass to and from the viscera of the fœtus, it is *umbilical*. To the same class belong the less common varieties, such as the *obturator* protrusion—through the hole for the obturator vessels and nerve; the *sciatic*—through the greater sacro-sciatic foramen; and most *diaphragmic* ruptures, which take place through the aperture for the œsophagus, or that for the superficial lymphatics of the liver, close to the xiphoid cartilage.

The class of protrusions which pass through abnormal openings are mainly included in the term *ventral*. Some forms of *diaphragmatic* rupture, and also the *vaginal* and *perineal* varieties, are also included in this class. To all these varieties, certain conditions of the internal parts, as well as of the containing walls, will predispose, and such predisposition may result from hereditary pecularities, or may be induced by certain occupations and habits.

The conditions of the internal structures which predispose to rupture affect chiefly the lining serous membrane of the cavity, the peritoneum and its processes, especially the greater and lesser omenta, which cover and connect the viscera; and the mesentery and mesocola, which retain respectively the small and great intestines. These tissues, in a certain proportion of hernia cases, exhibit, on a post-mortem examination, a degree of hypertrophy in length and width, giving to the viscera which they attach a lower position in the abdomen, and a degree of play in the cavity, which, in case the containing walls are also deficient, will result in a hernial protrusion. In most of these cases, also, there is a tendency to the formation of abdominal fat in the subserous areolar tissue. This fat is usually most abundant in the great omentum, which is much enlarged. In the folds of the superior false ligament of the bladder it is also found in greater quantities than usual. The presence of fat in these structures, however, is not in itself a cause of their hypertrophy. An omentum or mesentery loaded with fat is often coexistent with a degree of firmness, from a healthy development of fibrous tissue, which holds the viscera well in position. In many hernial cases there is, in addition, a laxity and looseness of the peritoneal connexions. The layers of the great omentum slide readily over each other, and may often be easily separated into four distinct folds. The pancreas, kidneys, and duodenum are more movable than natural; the root of the mesentery is depressed towards the sacral promontory; the anterior parietal layer of peritoneum is separated from the fascia transversalis and iliaca by a layer of loose fat, variable in thickness, giving to the superior and other false ligaments of the bladder a greater play than usual. By a minute dissection, the pellets of fat are found to encroach upon the tissue of the serous membrane itself, rendering it very thin and transparent in many parts, and giving it the appearance of a reticulated membrane. In the great omentum this condition sometimes attains to a cribriform structure. In the sac of a hernia formed under these circumstances, the microscope shows an openness of texture resulting from the spreading out of the fibres of the areolar base of the serous membrane, and giving the appearance of a paucity of the yellow fibrous element.

The above condition in these subjects is shown by a looseness and bagginess of the abdomen, a hypertrophy of the folds of fat in the groin, by a general flaccidity of the muscles of the limbs, and great play during their action. Frequently the genital organs and groins show a resemblance to the fœtal outline—a long prepuce, a short, rounded scrotum, and a soft, short cord, thickened by fat deposit. The tendency to hernia in such a condition is increased by hypertrophy of any of the viscera, as the liver or stomach, and by a perpetual state of distension of the intestines by flatulence. The form of rupture which results is usually inguinal or umbilical, which take place at the normal apertures most exposed to the increased pressure from within, and most liable to be opened out by distension of the abdominal walls. They are very apt to follow a sudden absorption of the accumulated fat from illness or starvation. The removal of the adipose tissue leaves the areolar meshes wide and weak, and ready to give way to pressure. In many of such cases I have seen the openings in the aponeurotic walls of the abdomen for the passage of small vessels and nerves enlarged by the interposition of pellets of fat. At the internal ring and the umbilical cicatrix, the peritoneum, instead of being closely adherent to the margins of the opening, is loose, lax, and movable, and often bulged into a digital impression, or even a distinct pouch, without any absolute protrusion through an opening in the abdominal wall.

A much more decided predisposing cause of rupture is, however, to be found in a preternaturally weak or patulous condition of the openings in the walls of the abdominal cavity. This weakness is, in the male, most frequently to be found in the inguinal canal. It results from the course followed by the testicle in its descent, and from the presence of the spermatic cord. This weakness tells chiefly, in hernia cases, in three distinct parts of the inguinal canal, viz., at the deep abdominal ring, in some part of the canal between the rings, and at the superficial ring. In the cases just described as accompanied by a change in the peritoneal structures, the connexion of the peritoneum to the fascia transversalis at the deep abdominal ring, is weakened by an elongated and loose condition of the process of tough areolar tissue, which results from the closure or atrophy of the canal of Nuck, or channel of communication between the peritoneum and tunica vaginalis. In a normal condition the peritoneum is closely adherent round the margins of the deep ring, and this adhesion prevents the first tendency to protrusion through the ring. In many subjects I have found an elongated mass of fat growing from the subserous structure, and protruding into the ring among the elements of the cord. In one which I lately examined, such a ball of fat had opened up the ring considerably. In many cases, without any hernial protrusion, the ring itself is placed internal to, and below, its usual position above the middle of Poupart's ligament. By this approximation to the site of the superficial ring, the canal is shortened and opened up, and predisposed to the reception of a hernia. In this case, the sharp internal falciform border of the ring is usually thickened and rendered more prominent. In one, a distinct band of condensed fibres was visible, curving under the spermatic duct, and connected below with the deep crural arch. A general laxity in the attachments, and a mobility of the fascia transversalis, is evident in these cases. The elementary parts of the cord itself are also very mobile.

In a great proportion of the subjects affected by oblique inguinal rupture, and in many in whom no rupture has occurred, but in whom a weak, bulgy state of the groins was evident, I have observed a deficiency in the development of the lower fibres of the internal oblique muscle. In the normal condition the lower arched fibres of this muscle are continued downwards and inwards along Poupart's ligament, arising from at least two-thirds of its length, and covering very decidedly, in front, the aperture of the deep ring, which is normally placed about half an inch above the centre of the ligament. In muscular subjects a decided thickening of the fibres of the muscle is observable over the ring itself, giving an increased safeguard against protrusion. In all, a distinct cellular interval is observable between this oblique muscle and the cremaster. Some of the fibres of the latter can,

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moreover, be seen to pass behind the internal oblique, to become connected with the transversalis muscle. On account of the looped arrangement of the cremasteric fibres, they can exert but little influence in retaining a rupture, even though they may be stronger than usual at their origin from Poupart's ligament, which is sometimes the case when the lower fibres of the internal oblique are not well developed. The transversalis muscle in these cases does not come so low down as usual. With this condition of the muscular fibres is also observed a thinned and atrophied state of the conjoined tendon of the internal oblique and transversalis muscles. Instead of being implanted for a couple of inches along the pectineal line, this structure cannot be traced much beyond the pubic spine, leaving a considerable interval between its outer edge and the epigastric vessels. The transversalis fascia can often be stripped easily from the hinder surface of the tendon instead of being more or less firmly blended with it. The tendon is arranged as distinct fibres, with connective tissue of a weaker sort passing between the intervals which separate them. The muscular fibres implanted upon its anterior surface are feeble and scattered. The false ligament of the bladder placed behind it is filled with a loose fat, in which the obliterated hypogastric artery plays freely. The fibres of the so-called triangular aponeurosis are feeble or absent. This condition predisposes to a direct inguinal rupture.

In a certain proportion of cases, and those in which inguinal rupture, when once formed, makes the most rapid progress, the superficial ring is so patulous as to receive the point of the finger. Sometimes this condition is unattended by rupture. There is no bulging at the deep ring, and the canal may be well embraced by the internal oblique and its tendon. In many cases, on the other hand, in which a bubonocele may be present, the superficial ring is well closed up by the intercolumnar fibres. Sometimes these resist the progress of the rupture so firmly, and for so long a time, that a considerable external tumour may be apparent above the ring, and a still larger cavity be hollowed out in the canal. At last, under some great effort, the rupture shoots through the narrow opening, and the tumour will assume an hour-glass shape, with the contracted part at the superficial ring.

Like the deep ring, the superficial may be opened up by the growth of a small fatty tumour. A specimen of this kind in my possession is connected above, in the canal, with the sac of a small hernia admitting the point of the finger. The tumour projects about an inch through the superficial ring, is elongated, and connected above with the subserous arcolar tissue of the small hernial sac. It is placed in front of the spermatic vessels and duct, and is covered by all the coverings of the cord.

Many of these cases of a patulous state of the inguinal openings have been doubtless consequent upon a later descent of the testicle than normal. This may possibly have also resulted from the muscular apparatus effecting the descent participating in the vice of defective development. In a certain proportion of cases, congenital hernia is the result, the bowel following close upon the gland, and preventing, by its frequent presence, the progressive closure of the canal. In others, the serous canal becomes closed, and the deep ring sealed by adhesion of the serous membrane to its margins; but the patulous condition of the tendinous canal and superficial ring remains ready for the reception of a hernial sac in after life. Some of the most rapidly-progressive cases I have met with have been of this kind.

They have been usually characterised by the persistence in adult life of some of the peculiarities of fœtal conformation such as those before mentioned—of a long prepuce, rounded scrotum, short and plump cord. The mons veneris and folds of the groin are usually loaded with fat, and the pubic hair scanty. The pelvis has often a degree of obliquity which, with the protuberent belly, brings the lower abdominal walls more directly under the pressure of the weight of the abdominal viscera, and so increases the tendency to rupture. The pillars of the superficial ring are thin, weak, and yielding, and the groins bulgy.

In another class of cases, the tendinous parts of the abdominal walls are extensively developed, but are wanting in tenacity and resistance. The pillars of the superficial ring are strong and resisting, but often widely separated. The intercolumnar fascia, which binds them together, is thick and dense, but loosely held or collected into a band, which imperfectly closes the opening. The conjoined tendon is thick, but apt to yield before pressure, from inherent weakness. The muscular portions of the groin are not developed well down towards the pubis, and, though the cremasteric fibres may be large and strong, they are not closely bound to the lower borders of the internal oblique and transversalis muscles, nor well implanted upon the conjoined tendon. The wings of the ilia are wide-spreading, and the flanks consequently large, and Poupart's ligament longer than is usual in the male, though strongly developed. The recti muscles are broad towards the thorax, but taper considerably towards the pubis, leaving a large aponeurotic space in the groins.

The peritoneal structures in these cases are usually thick and opaque, but yield somewhat readily to pressure. The scrotum is often long, lax, and heavy, and the testes pendulous. The individual is of a sinewy, rather than a muscular build, with a long body, and often large limbed and bony. The ruptures in such cases are of slow growth, and generally of unmarked origin, and, when fully formed, increase to a large size. They are usually of the inguinal variety, often on both sides. Crural hernia may also co-exist, and pouches may be seen at both the inguinal and crural openings.

A third class of cases of inguinal hernia is marked by great muscular development, but with a want of corresponding balance in that of the tendinous structures. The pillars of the superficial ring are firm, but thin, and are apt to split and part asunder between the fibres. The same peculiarity marks the conjoined tendon. The flanks are narrow, and the inguinal and crural openings small. The peritoneum is translucent, and healthily elastic and resisting, and the subserous structures tough and adherent.

Rupture in these cases comes suddenly and with great pain, after some violent muscular effort. It is often direct, and is effected more by a forcible splitting of the fibres of the conjoined tendon, than by a gradual yielding of the tissues. It is more liable to be affected, while still of small size and recent formation, by immediate and violent symptoms of strangulation, than either of the other varieties. This is also more influenced by spasm of the internal oblique muscle, of which the lower fibres are strong and well developed, and closely embrace the neck of the sac.

The importance of an early recognition of these tendencies to rupture—a disease in which, pre-eminently, prevention is better than cure, and the means thereof easily applied, but requiring a proper discrimination withal of each individual case—will justify a close scrutiny into the conditions which favour or retard its production.

RECORDS OF A CASE OF PROPTOSIS, GOITRE, PALPITATION, ETC., WITH REMARKS.

By C. HANDFIELD JONES, M.B., F.R.S.,
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(Concluded from page 7.)

The goître may, with great probability, be ascribed to a paretic condition of the vasomotor nerves of the thyroidal vessels. Malarious influence, which acts so evidently in an enfeebling manner on nervous structure, produces the well-known enlargements of the spleen and thyroid gland, which again are reduced or diminished by means of an invigorating character. Dr. Murney has recently recorded some instances of the successful treatment of goître by strychnia (*vide Dublin Hospital Gazette*, June 1, 1860). If we suppose the supply of blood to the spleen and thyroid to be increased by dilatation of their arteries, and their cell elements to have their nutritive actions increased by the loss of controlling nerve influence, hypertrophy must clearly result. The thyroid, inasmuch as it normally secretes into closed cavities, seems especially liable to hypertrophic enlargement.

The palpitation may also reasonably be ascribed to a semi-paralysis of the vagi nerves, or their cardiac branches. Section of the vagi is well known to accelerate materially the movements of the heart. In a case on which I operated the contractions of the heart were 200 in the minute after both vagi had been divided; when the left only was divided, 110. The occurrence of the palpitation in *accès* indicates its neurotic character.

The cough was evidently a neurosis from its peculiar intermittent character, its violence, and the absence of sputa in any commensurate amount, or of physical signs in the chest. The same may be said of the vomiting, which appeared to be a precisely analogous phenomenon on the side of the stomach.

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On the first occasion tonics were of no avail to quiet these disturbances, but sedatives, argenti nitras, and hydrocyanic acid succeeded well. On the second occasion strychnia had excellent success in arresting the vomiting and in improving the general status. I can be confident that the condition of the gastric mucous membrane was not one of chronic inflammation in either of the attacks. Admitting the cough and vomiting to be neuroses of the pneumo-gastrics, can we rank them in the same class as the two preceding affections, which we have ascribed to paresis of the vaso-motor nerves? It appears to me that they may be regarded as closely similar, though not identical states; for we are continually meeting with instances where a state of extreme hyper- or dysæsthesia of some part coexists with most marked debility, and can only be cured by replacing the debility by vigour. It is evident that the debility is the root-malady, without which the hyper- or dysæsthesia would cease. Now, in some of these cases we can cure the two states by one and the same means, as in many cases of so-called scrofulous ophthalmia; but in others of the same disease, tonics entirely fail to relieve the dysæsthesia, and we are obliged to employ sedatives at first, till some ground has been gained in reducing the irritability, and then tonics come in with advantage. In scrofulous ophthalmia there is no doubt that the state of the retina is but a part of a general condition of debility, which takes the form in one particular nervous apparatus of hyperæsthesia. The latter pathological condition is, in fact, but a modification of the former, and results probably from the debility reducing the power of the nervous expansion to endure even ordinary stimuli without being injuriously affected. The same is true of a multitude of other pains, and dysæsthesiæ, which are notoriously intimately connected with debility, and spring, as it were, out of it. Not unfrequently the dependence of the pain on nervous exhaustion is strongly marked by its being reproduced by slight exertion, after it had ceased to be felt during quietude. On these grounds I think it may be affirmed that the cough and vomiting were intimately connected with a state of paresis of the pneumo-gastric nerves.

The *peculiar* and *extreme debility* requires some remark. It was indeed extreme, so much so, that on both occasions there was no small risk that it would prove fatal. Yet, there was no obvious cause for it, no organic disease of any vital part, no drain by suppuration, or persistent diarrhœa. Her history on both occasions is, that she fatigues herself for a length of time by overwork, prostrates her nervous power, and then falls into a state of great debility, attended with a train of peculiar symptoms, and not removed by absolute rest. The administration of iodine on the first occasion might have contributed to increase her debility, but not on the second, when her state was even more perilous. It had then considerable resemblance to delirium tremens, but I am positive that alcoholic poisoning had nothing to do with its causation. To such conditions I think the term *neurolysis* is very appropriate, implying not mere common debility, such as might exist after a fever or other severe illness, but especially debility of the nervous system, which is continually manifesting itself in some form or other, either in the cerebro-spinal or sympathetic department. The recognition of this state is important, because it leads the practitioner to be on the look-out for a variety of disorders, all of which are *au fond* of the same character, and require the same treatment, although their outward manifestations are very different. Sometimes it is a neuralgia, sometimes a paralysis; sometimes a head affection with threatening coma or hemiplegia; again, some inflammatory or congestive state, with more or less exudation, often a diarrhœa. To call this condition hysterical, as is sometimes done, I hold to be an injustice, at least if hysteria be conceived to imply a mental state characterised by exaggeration, deception, and want of earnest desire to recover. The functional nervous disorder is not so palpable and clear as a broken limb, or inflamed lung, but it is not less real, and is often not less remediable by judicious management. I would that those who are sceptical of the reality of this pathological state had some experience of it themselves, that they might learn how much heroism it requires to endure a constant struggle against such crippling and weakening infirmity.

During the height of the disorder, in the first attack, the *condition of the urine* indicated a considerable destruction of red globules to be going on by its deep red colour. When improvement had commenced this was exchanged for extreme pallor, showing that the waste was reduced even lower than the normal amount. It seems difficult not to refer the former state to a loss of the controlling power of the vaso-motor nerves, which regulate no doubt the nutritive actions taking place in the blood itself, as well as those in the tissues. The blood cells hurried through their period of life more rapidly than they would have in health, and decayed, yielding up their pigment to the urine; while, from the great emaciation, it is fair matter of inference that the same was the case with the various extra-vascular tissues. All this took place, be it remarked, under, and apparently in consequence of, a condition characterised by extreme failure of nervous power.

A few remarks with respect to the remedies employed may not be out of place. The efficacy of argenti nitras has been doubted, chiefly from the circumstance that it seems impossible it should not be immediately converted on entering the stomach into the insoluble and inert chloride. Admitting this, and, consequently, the difficulty of explaining its *modus operandi*, it yet seems to me quite undeniable that it is a most useful remedy in gastric disorder characterised mainly by undue sensibility of the mucous lining. To decided gastrodynia, or gastric catarrh, it does not seem appropriate,—at least, such is my experience of it. Dr. Fleming, however, thinks it efficacious in chronic inflammation of the stomach when administered so as to form an internal lotion to the empty viscus.

The amount of opium given on the second occasion was large,—varying from eight to twelve grains in twenty-four hours for several days—yet no narcotism was produced, and the effect was evidently beneficial. I can have no doubt that it procured sleep, without which she must have sunk. This has a bearing upon its use in delirium tremens.

Strychnine succeeded admirably in this case, as it often has in my hands, in arresting vomiting and in raising the general tone. It must clearly do this by its action on the spinal cord and sympathetic ganglia, increasing the functional energy of their nerve cells. It is probably just in the same way that it proves sometimes so serviceable in chorea, diminishing the mobility as it raises the power of the nervous structure. These two properties seem almost always to vary inversely, the tendency to action on slight excitement being mostly proportionate to the debility.

The effects of change to country air were always remarkable in this case. There can be no doubt that the atmosphere of large towns does often tend most notably to lower the power of the nervous system, and to generate a state of morbid irritability, which subsides when this chronic poisoning is at an end. My friend, Mr. White Cooper, has mentioned to me a case in which a lady, who has suffered from ague, is apt to have relapses while residing in London (in one of the most aristocratic squares), which she can only shake off by going to Brighton. Her system can resist the malarious impregnation it has received in the purer, but not in the more vitiated atmosphere.

CASES OF UNUSUAL SLOWNESS OF PULSE, WITH REMARKS.

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(*Read before the Hunterian Medical Society, December* 2, 1863.)

(Continued from page 8.)

I have myself seen several instances of unusual slowness of pulse in persons labouring under disease of the heart. When I was at the Edinburgh Infirmary, a patient was under the care of Dr. Craigie who, six months before death, had only a pulse of 44 to 50 in a minute, and during the last portions of his life of 30 to 33. After death he was found to have a circumscribed aneurism of the septum of the ventricles, which had produced obstruction to the circulation on the right side of the heart, and was combined with great hypertrophy and dilatation of the left ventricle. Some years ago I was shown, by Dr. Barker, at St. Thomas's Hospital, a man labouring under disease of the heart, whose pulse beat regularly about 36. The two following cases afford examples of the same condition:—

Case 1.—*Unusual Slowness of Pulse—Signs of Disease of the Aortic Valves—Occasional Fits of a Syncopic or Epileptic Character.*

The man who is the subject of this case is a labourer in the Victualling Yard at Deptford. He first came under my notice six years ago, when he was fifty-three years of age. He informed me that in June, 1857, he was taken with a sudden feeling of

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cramp in the calves of the legs, which gradually travelled up towards the heart, when he became faint, and remained so for two or three days. After experiencing these symptoms for a day or two, he fell down, while walking, in a state of unconsciousness, from which, however, he immediately recovered. The faintness continued and he had attacks of syncope every few minutes for several days, and he was laid by and incapable of doing any work for seven weeks. At the end of that period he got tolerably well, and was able to resume his occupation for fifteen months. In November, 1858, he was again taken with a similar attack, and continued to suffer for about three weeks, when he was sent by Dr. Cregeen to see me at St. Thomas's Hospital.

He was at that time still suffering from the syncopic attacks which he experienced at all times, both in the day and night, but especially during the day. He complained of constant sense of sinking, aggravated on taking food, and had great difficulty of breathing on making any slight exertion, with palpitation, and a slight cough and expectoration. The pulse at the wrist was extremely slow, and the action of the heart corresponded with it, beating steadily from 28 to 30 times in the minute; the respirations were from 20 to 24. The slowness of the beat of the heart consisted in the prolongation of the interval of rest, and the sounds of the heart, though flat, were free from murmur. He stated that he had suffered from rheumatic fever about twelve years before, and had also had occasionally gouty symptoms. He had always been what he considered temperate in his habits, though he regularly took porter, and occasionally spirit. He had not latterly been addicted to smoking. After I first saw him in December, 1858, he was, for a time, an in-patient at St. Thomas's, and afterwards continued to attend at intervals for about three years as an out-patient. During this time his pulse continued slow; its ordinary rate was from 28 to 32, but occasionally it rose to 40, and, under excitement or active exertion, to between 50 and 60. He did not in this period suffer from the syncopic attacks, but was always feeble, and capable of only slight exertion. In August, 1862, after having felt unusually languid and sickly for two or three days, he was suddenly attacked while walking, and fell down entirely without consciousness; and, though he soon recovered, he continued to suffer from a feeling of faintness for several days. Shortly after the attack, I saw him, and found his pulse beating regularly from 30 to 34, and detected a slight systolic murmur at the base of the heart. He was not able to return to work for six weeks, and then was again laid by in November with a fit of the gout. After this his health was better, and he was able to go on with his usual occupation till August of the present year, when he had another syncopic attack. Like the former, it commenced with cramps in the calves of the legs, pains extending up towards the heart, and sickness and faintness, but it never proceeded to the production of complete unconsciousness.

December 1, 1863.—He has now been able to resume his employment for the last three months, but can only do light work; the slightest pulling or lifting of heavy weights, rapid walking, or ascending stairs or any slight elevation, at once gives rise to shortness of breath, pain in the region of the heart, and sense of sickness and faintness. He does not complain of palpitation under ordinary circumstances, and he has no cough or expectoration. His appetite is generally good, but he suffers much from flatulency after taking food, and the cardiac symptoms are often so aggravated. His bowels are regular, and he passes water fully and freely.

The pulse beats steadily 32 to 34 in the minute. It is somewhat large, and rises suddenly under the finger, but is soft and compressible. It corresponds entirely with the impulse of the heart, though the interval between the two is rather prolonged. The cardiac dulness on percussion is somewhat greater than natural; the sounds of the heart are feeble; and there is a slight, soft murmur with the systole, the diastolic sound being flat. He complains of a constant whizzing noise in the left ear. There are some enlarged veins on the upper part of the thorax, and he holds his head in a constrained position forwards, so as to produce some flattening of the upper mammary regions on both sides. The resonance on percussion is good; the respiratory movements slight, but natural as to frequency; the respiratory sounds feeble. He counts aloud, without drawing a fresh breath, to 10 or 12.

The following case, which was the first I met with, and which has been before referred to, differs from that just related in not having presented any decisive signs of disease of the heart, though there could be little doubt the organ had undergone some structural change:—

Case 2.—Remarkable Slowness of Pulse, continuing for several Years—Occasional Apoplectic or Syncopic Attacks—No obvious Signs of Cardiac Disease.

The subject of this case was a gentleman, 70 years of age, who enjoyed fair health for the age, except that he had a remarkable slowness of his pulse. He stated that he had attained the age of 60 without suffering from any serious indisposition, and had led a most active life, having been thirty-eight years in the army, and during a considerable portion of that time a non-commissioned officer in one of the regiments of Guards, in which he performed the campaigns of the Peninsula, and was present at Waterloo. Since leaving the army he had spent much of his time in the quieter kind of field sports. About six years before the date of my seeing him, he was seized with an attack which was regarded as apoplectic by his Medical attendant, for which he was bled with advantage, but which was not followed by any paralytic symptoms. After the attack his pulse was small, and quicker than it had been, and he suffered from palpitation and uneasiness in the region of the heart, and a sensation described as a feeling of something rushing to the head. About two years after the first appearance of these symptoms, he suddenly became faint while engaged in making some slight exertion, and fell down in a state of insensibility; and, on recovering his recollection, the feeling of faintness and languor was still felt, and continued some time, and he found his pulse beating only 25 to 30 times in the minute, a rate which with little variation it had retained for the last four years. I counted his pulse, and it beat steadily and with perfect regularity 28 times in the minute, and this, he informed me, he regarded as the healthy standard. Occasionally, under the operation of depressing causes, as over fatigue by muscular exertion, it fell below that point, being only 20, and, on one occasion, only 18 in the minute. Under these circumstances, the languor and feeling of rushing to the head and of faintness came on. On the other hand, excitement of any kind, unusual bodily exertion, taking one or two glasses of wine, or more frequently mental excitement, occasioned increased frequency of the pulse, when it would beat 32 or 34, and this was uniformly attended with a feeling of oppression and feverishness.

For three years after the change in the rate of his pulse he was liable to occasional attacks of syncope; for the last twelve months, he had, however, been free from them, and during the whole time had been in a pretty good state of health, and capable of taking an ordinary amount of exercise. His general appearance was that of a person of greater strength and activity than most at the same period of life; and, though upwards of six feet in height, so far from being in any degree bent by age, his gait was remarkably erect.

On examination, the impulses of the heart were found to correspond with the pulsations of the radial artery. The sounds of the heart did not present anything unusual, and were heard most distinctly between the sixth and seventh ribs. The first sound was short, and was terminated abruptly by the second; the action of the heart was perfectly regular, its impulse rather powerful, and the pulse at the wrist not deficient in strength. Percussion did not indicate material increase in the size of the organ, and was good over the rest of the chest, except at the lower part of the right side, where the liver was found to advance considerably into the cavity. The respiration was natural as to frequency, and was performed with ease, except when he was engaged in unusual bodily exertion. No indications of cerebral disease existed. In consequence of his absence from home I did not again see him for two years. During the interval he had suffered from an attack of faintness, after which he was left languid and oppressed, and incapable of much exertion for some time. With this exception, his health had been good, and he had been able to follow his usual occupations. His pulse I now found somewhat slower than before, beating only 26 times in the minute. The sounds of the heart were still natural, or nearly so, and there were evidences of some degree of hypertrophy and dilatation, but no signs of valvular disease.

On the occasion of our first interview I had recommended the adoption of a moderately stimulating diet. Latterly, however, he informed me he had abstained almost entirely from fermented liquors, and he imagined with advantage. During his whole life he had indeed been very temperate. He continued in his usual health till the following year, when he was suddenly seized with an attack of syncope and expired,—seven years after the remarkable slowness of pulse had first manifested itself. He was at this time residing at a distance, and no examination of the body took place.

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The facts brought forward sufficiently illustrate the frequent co-existence of slowness of pulse with valvular or other form of disease of the heart, and, together with the case mentioned by Dr. Addison, and one of those reported by Dr. Stokes, show that syncopic or epileptic paroxysms are of common occurrence in such cases. It remains to inquire whether the infrequency of the pulse is connected with any special form of cardiac disease, or may, on the contrary, occur in different organic affections.

Mr. Mayo supposed that slowness of pulse especially occurred in cases of "ossification of the coronary arteries, and atrophy with or without passive dilatation." It appears, however, more in accordance with experience to find a weak and irregular pulse in cases of atrophy and dilatation; and in the only case of slowness of pulse which I have had the opportunity of examining after death—that under the care of Dr. Craigie—the heart was in the very opposite condition, the left ventricle, though large, being very greatly hypertrophied.

Dr. Stokes (a) and Dr. Quain (b) have pointed out that slowness of pulse frequently accompanies fatty degeneration of the walls of the heart, and suppose that the alteration in the structure of the organ occasions the diminution in the rate. Of the frequency of the coincidence there can be no doubt. In addition to the cases related by Dr. Stokes, and that referred to by Dr. Quain, the former gentleman quotes instances from Adams, Cheyne, and Law; and in one of the cases related by Mr. Worthington the heart is reported to have been loaded with fat, and from the description given of the appearance of its substance its structure was probably also degenerated. On the other hand, Dr. Bence Jones (c) and Dr. Ogle (d) have related cases in which the heart had undergone the fibrinous degeneration, and the pulse during life had been remarkably slow, and they ascribe the slowness to the state of the structure of the heart. These views are, however, open to very grave objections. We know that the occurrence of slowness of pulse in cases of fatty degeneration is only exceptional, the most usual character being weakness and irregularity. Dr. Quain, in the table which he gives of the state of the pulse in cases of fatty degeneration, reports only eight cases of slowness in the fifty-one which he refers to. Dr. Stokes also relates several cases of fatty degeneration in which the pulse was not slow. We have, indeed, all met with cases of the most marked fatty degeneration in which the pulse has not been below the healthy standard. Ossification of the coronary arteries very often coexists with fatty degeneration, and, if occasionally found in cases where the pulse has been slow, is much more frequently associated with a weak and irregular pulse.

In the communication of Dr. Ogle two cases of fibrinous degeneration are recorded, and in one only was the pulse slow; while other examples of the same condition of the heart are reported in the *Pathological Transactions*, which equally show that there is no necessary connexion between slowness of pulse and this form of degeneration. Both forms of transformation must materially impair the power of the left ventricle, and the blood being thus only feebly impelled into the aorta, the pulse at the wrist will ordinarily be weak, and frequently also irregular and small.

Two of Dr. Stokes' cases are instances of aortic valvular disease, and in one of those which I have related the same condition existed; but, though the pulse in chronic aortic valvular disease is often slow, or, at least, not materially accelerated, this affords no explanation of the slowness of pulse. In some of the most remarkable cases of slowness on record there was no evidence of any valvular disease of the heart, as is illustrated by the second of my own cases. I may remark incidentally, that the coexistence of slowness of pulse and aortic valvular disease is entirely opposed to Mr. Mayo's supposition, that the heart was atrophied in cases of slowness; for we well know that with any considerable obstruction at the aortic orifice the left ventricle necessarily becomes hypertrophied.

2. It has been already stated that Mr. Mayo supposed slowness of pulse to depend in some cases on "general depression, exhaustion, and reduction of strength." In support of this view he quoted two cases. In one of them, a young lady, in consequence of suffering from a neuralgic affection of the face and throat, was advised by her Medical attendant to abstain from taking food by the mouth, and was supported by nutritive enemata exhibited two or three times daily. In four days symptoms of fever supervened; in a month the catamenia, which had been suppressed for nine months, returned, and two weeks after, the pulse suddenly sunk from between 70 and 80 to 35. In the other case, a Medical student, after having sat up for six nights in attendance upon a patient, found his pulse rapidly fall to 35, and, though it rose again to 40 in a few days, several years elapsed before it reached the healthy standard.

It is by no means uncommon, in convalescence from acute febrile diseases, for the pulse to fall below the natural rate, and remain remarkably slow for some time. This is especially the case in convalescence from severe uncomplicated typhus. The pulse, which, during the active period of the disease, may have ranged from 112 to 120 or upwards, falls, as convalescence advances, to 70, 65, 60, 50, and even 45 and 40. This slow rate it will retain for some time, and then, as the patient uses more exertion, it often again rises to 110 or 100 or 112, and, in the upright position, even to 120, and, lastly, sinks gradually to the healthy standard. These changes I have noticed so often, that I have long been in the practice of pointing them out to the students in the wards of St. Thomas's as being the natural process of recovery in typhus, provided no serious local complication occur to interfere with the ordinary course of the disease. Dr. Stokes has referred to a case in which he observed a similar remarkable diminution in the rate of the pulse in a case of typhus. Similar changes may be observed during convalescence from other acute diseases. I may particularly instance diphtheria.

(To be continued.)

(a) *Op. Cit.*, and "Diseases of Heart and Aorta."
(b) *Med.-Chir. Trans.*, vol. xxxiii.
(c) *Pathol. Trans.*, vol. vii., 1855-56.
(d) *Ibid.*, vol. viii., 1856-57

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

ANEURISM OF THE ARCH OF THE AORTA COMPRESSING THE VAGUS AND RECURRENT NERVES, AND CAUSING SYMPTOMS OF LARYNGITIS. DIAGNOSIS BY AID OF THE LARYNGOSCOPE.

(Under the care of Dr. GEORGE JOHNSON.)

THIS case is a good illustration of the occurrence of laryngeal symptoms in thoracic aneurism from pressure on the recurrent laryngeal. It shows, too, the great practical value of the laryngoscope in affording the negative evidence that there was no actual disease in the larynx. In all cases of laryngeal dyspnœa, especially when the dyspnœa is paroxysmal, the chest should be carefully examined; and, indeed, when there are merely symptoms of laryngitis, or even altered pitch of voice, it should not be omitted. "It cannot," says Dr. Gairdner, "be too strongly insisted on, that a physical examination of the chest should take place in all cases of supposed laryngeal disease." But sometimes an examination of the chest does not give us definite information, as in Dr. Johnson's case. To quote again from Dr. Gairdner's paper—"The absence of the physical signs of aneurism or tumour should not suffice to remove completely the suspicion that they may be concerned in the affection of the larynx." In such cases the laryngoscope supplies a real want. Aneurisms which are likely to involve the recurrent nerves are, on the right side, those of the right subclavian and the innominate artery, and, on the left, the arch of the aorta. We have, however, seen one case in which this nerve was involved, and yet there had been no laryngeal symptoms. The nerve was found, at the autopsy, to be "flattened out," and yet the patient's voice had been clear to the last. This case is, of course, quite an exceptional one. It may be that the pressure had affected the nerve very gradually, as we know that there is a remarkable difference in the effect of gradual and of sudden pressure on nervous tissue. In Mr. Canton's case of subclavian aneurism, which we published last week, there was a remarkable change in the voice. It was shrill and childlike.

J. H., aged 31, a hawker, of intemperate habits, was admitted, under the care of Dr. George Johnson, into King's College Hospital, July 16, 1863. About seven weeks before his admission, after being out drinking all night for five nights in succession, he first experienced a sensation of a "stoppage in the throat," and lost his voice. The throat symptoms con-

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tinued more or less until the time of his admission. For eight days prior to admission he had experienced difficulty in swallowing solids. For five days the voice had become more husky; he had cough and difficulty of breathing, and the breathing was attended with a loud noise in the throat.

The symptoms on admission were cough, with dyspnœa and noisy laryngeal breathing, hoarseness, and difficulty in swallowing solids. He states that sometimes the noise in his throat entirely ceases, and he partly regains his voice, but the noise is usually louder while he is asleep.

On laryngoscopic examination by sun-light the mucous membrane of the larynx was seen to be slightly congested, but there was no swelling; the arytenoid cartilages were freely movable, and the glottis opened wide during inspiration. At the time of the examination the breathing was not stridulous.

It was evident (Dr. Johnson remarked) from this examination, that the laryngeal symptoms were not the result of laryngitis or other structural disease in the larynx. Aneurism of the aorta or other source of pressure on the recurrent nerve was suspected and carefully sought for, but there was no physical sign of aneurism, no dulness on percussion, and no pulsation or morbid sound; the pulse was equal in the two wrists.

On the 18th, two days after his admission, he spat up a few mouthfuls of florid blood, and felt rather faint at the time.

On the 20th, at 1.15 p.m., he suddenly became faint, and brought up, apparently by vomiting, about three-quarters of a pint of florid blood. When Dr. Johnson saw him, at 1.45, he was still pale and faint, as if from internal hæmorrhage. No more blood had been brought up, but on percussion over the stomach there was marked dulness, and it seemed probable that the stomach was becoming filled with blood. He was directed to swallow constantly small pieces of ice. He continued to sink gradually, and died at 5 p.m.

On examination twenty-three hours after death, an aneurism about the size of a small orange was found at the back of the transverse portion of the arch of the aorta. The aneurism had opened backwards into the œsophagus by an oval aperture three-quarters of an inch long and half an inch wide, the opening being partly covered by coagula. The stomach was full of blood. The left pneumogastric nerve passed in front of the aneurism, and was somewhat flattened in doing so. The recurrent nerve passed behind the tumour in its course upwards to the larynx. Both the pneumogastric and its recurrent branch had evidently been stretched and compressed by the aneurism.

LONDON HOSPITAL.

DYSPHONIA, CAUSED BY SPASM OF THE LEFT TRUE VOCAL CORD—LARYNGOSCOPIC EXAMINATION—PAIN IN THE LEFT EAR—ANEURISM OF THE ARCH OF THE AORTA (?)

Thomas D., aged 30, well-nourished, and of considerable muscular development, but having large arcus seniles, applied at the Hospital, December 1, on account of a burning pain in the chest. On inquiry it was found that lately he had several times spat up a few tea-spoonfuls of blood, altogether about a cupful. His appetite was good, and there was nothing to indicate disease of the digestive system. A careful examination of the chest failed to detect any signs of cardiac or lung disease, nor could any aneurismal tumour or abnormal bruit be detected, and there were no signs of venous obstruction (from pressure on the large trunks).

The pain had come on quite suddenly about a fortnight before he came under notice, and he compared it to a feeling "as though he had swallowed something too hot." At the time that he first felt the pain, his voice became suddenly very hoarse and weak, and it has since become shrill and feeble. He continued his work for a day or two after he first felt the "burning;" but his occupation (that of a dock labourer) aggravated the pain so much, whilst it caused him at the same time to make "a crowing noise in his throat," that he was obliged to desist from all labour.

A laryngoscopic examination was made by Dr. Morell Mackenzie, who gave the following report:—

"The larynx is quite free from structural disease, and there is not the slightest congestion of the mucous membrane. On inspiration, there is a very slight difference in the position of the vocal cords,—the left being a little nearer to the median line than the right. On the left side also, the capitulum Santorini is a little nearer to the median line, and on a rather higher level than its fellow, and the same observation applies to the left aryteno-epiglottidean fold and its contained cartilage. This condition of the left side of the larynx is not so marked as in other cases of unilateral spasm of a vocal cord that have come under my notice; but it must be remarked that, in this instance, neither of the vocal cords is so much drawn aside in inspiration as is commonly the case: this fact would account for relative differences between the two sides being less marked than is usual. On gentle phonation, the left vocal cord is observed to remain fixed, whilst the right advances well to the median line: a small space remains between the vocal cords. On forced phonation, the right vocal cord crosses over the middle line, so that its inner edge touches the left cord. When the vocal cords are approximated in this way, the whole of the right cord, but only about one-third of the breadth of the left true cord, can be seen. It was carefully noted that this appearance was not due to any difference in the size of the false cords,—that is to say, the left true cord was not at all eclipsed by the false cord on the same side. The patient can only speak in a high-pitched squeaking voice, of a somewhat falsetto character.

"It may not be out of place to observe that the long recognised relation between aneurism of the arch of the aorta and an altered tone of voice was first proved with the laryngoscope to depend on paralysis of the left vocal cord, by Professor Traube, of Berlin. Cases also have since been observed by Drs. Semeleder, Smyly, and others. In Traube's case, besides an immobile condition of the left vocal cord, there was hyperæmia of the false cords and epiglottis, and of the mucous membrane over the arytenoid cartilages."

Subsequent to this report the patient has become worse, and now the left pulse is decidedly fuller than the right, and there is a very slight systolic murmur, but only to be heard at the apex of the heart. The chest has been examined very many times, but no physical signs of aneurism have been found. There has never been the least difference in the pupils. Taking into consideration all the circumstances of the case, the spasm of the left vocal cord may not unreasonably be thought to depend on pressure of the left recurrent nerve by a thoracic tumour: that the thoracic tumour is an aneurism of the arch of the aorta is very probable.

This patient's voice has gradually altered from hoarse to squeaky and shrill, and resembles that of Mr. Canton's patient. Is it that irritation has passed into paralysis?

We may draw attention, too, to the pain in the ear, which, we have heard Dr. Gull remark, is a symptom not uncommon in thoracic aneurism. The patient, at his last visit, complained bitterly of the pain. He said that it "ran up" from the left side of his chest to the ear. The pneumogastric gives off an auricular branch, but it is distributed to the prima, in which part the patient has no pain; it is "a piercing pain right inside," and he tries to enforce his remark by sticking his finger in the meatus. It will be well then simply to record the fact. It may be a coincidence. There is not the least deafness. This patient also has very frequent retching, which is probably due to pressure on the trunk of the pneumogastric where the recurrent nerve is given off. Death by pneumonia from implication of this nerve occurs also in thoracic aneurism. We lately saw an autopsy at Guy's on a patient who had died with aneurism in the thorax implicating the right pneumogastric. The right lung was pneumonic. The pneumonia was ascribed by Dr. Habershon, under whose care the patient had been, to pressure on the pneumogastric. Cancer of the œsophagus often terminates by pneumonia, and the pneumonia here, too, is supposed to be due to implication of the pneumogastric. It may be said, if this reasoning be correct, that pneumonia ought to be common in aneurism; but probably it chiefly depends on the general health of the patient whose lung is ennervated, as in animals, section of the pneumogastric does not produce pneumonia so long as the animal is well fed and cared for. Absence of nervous power alone does not produce inflammation, but renders parts liable to it.

Thus we have in thoracic aneurism symptoms referred to the wide distribution of the pneumogastric—to the larynx, as evidenced by the laryngeal symptoms—to the lung, as shown by the pneumonia—the stomach, by the sickness. We have sometimes also pain in the ear, although the explanation of this symptom is not very clear, but probably in some way it also is due to the pressure on the pneumogastric. Pain in the course of less important nerves is also common in thoracic aneurism. In Mr. Canton's patient, the pain in the shoulder

was, before the operation, very severe. The whole arm was weakened, and his grasp feeble; but it is very remarkable that there did not seem to be loss of sensation in the arm. He could feel touching, pinching, and could tell two points of compasses at a normal distance, so that, to rough and scientific tests, his feeling was normal. He said it felt numb, but the defect must have been trifling. Pain shooting in the course of nerves is very characteristic of pressure, and this patient had also well marked pathognomonic signs of nervous pain—"pins and needles," to use his expression, "as if it were asleep." This regional kind of pain may often help us to locate an aneurism, and often does so, when pains shoot in the course of one or more intercostal nerves on the left side. Dr. Gairdner has also drawn the attention of the Profession to another valuable symptom in the diagnosis of aneurism, viz., contraction of the pupil, attended with slight ptosis, from paralysis of the cervical sympathetic. We shall speak of this symptom in reporting a case of sweating on one side of the face.

CANCER OF THE CERVIX UTERI—SYSTEMIC INFECTION—(SECONDARY CANCER?)—DISTANT VASCULAR AND LYMPHATIC OBSTRUCTIONS AND PHLEGMASIÆ.

(Under the care of Dr. BARNES.)

Case 1.—*Cancer of Cervix Uteri—Systemic Infection—Vomiting—Glandular Swellings—Phlegmasia Dolens.*—P., aged 45, admitted August 19, 1863. Has had nine children, the last six years ago. Menstruation has been regular, but during the last nine months she has had repeated floodings. Is now very anæmic; deep straw complexion. For the last four days has been distressed with vomiting. The cervix uteri was found far gone in scirrhous degeneration, but the mass was still slightly movable. There is some swelling of a tense character of the right leg. This began within the last few days. She had always had venectasis during pregnancy, and persisting more or less since, but the affection had diminished considerably since the floodings. She was ordered bismuth and cyanide of potassium to relieve the sickness, with good effect. Irritative cough followed; the cervical glands became a little enlarged; the left elbow became swollen, shiny, and a little red; she was unable to extend the arm fully, and had a burning sensation in it. She was ordered cod liver oil and hydrochloric acid. In a week the swelling in the arm had gone down; she complained of expulsive uterine pains as being very distressing; otherwise she was much stronger and better.

Case 2.—*Cancer of Cervix Uteri—Vomiting—Distant Glandular Tumours.*—D., aged 55, admitted April 13, 1862. Has had twelve children, the last fourteen years ago. No menstruation after the last labour; but floodings began to appear two years ago, and leucorrhœa of an offensive odour and staining her linen; had a very severe flooding seven months ago, and more or less hæmorrhagic discharge continuously since. She is much emaciated; has no appetite; for some months troubled by frequent vomiting. Has shooting and pricking pains in the pelvis. The cervix uteri and the upper part of the vagina were confounded in an extensive mass of cancerous degeneration. During the last six weeks she has noticed the growth of several lobulated tumours. There is one on the right ham; one in the left arm-pit; numerous others on the hips and thighs. These swellings are hard, varying in size from that of a pea to that of a walnut; they are painful on pressure, so much so that she finds it difficult to lay down without suffering from one or more. They consist of lymphatic glands, enlarged and inflamed by cancerous matter (?) passing through and partially arrested in them, and of inflammation and induration of the surrounding cellular tissues. It does not appear that any of the tumours have suppurated. This patient was under observation some months. The offensiveness of the vaginal discharge was moderated by injections of Condy's fluid; and the general health supported by cod-liver oil. The condition of the lymphatic nodules remained without much alteration.

Case 3.—*Cancer of Cervix Uteri—Venectasis—Thrombi—Phlegmasia of Left Leg.*—C., admitted April 15, 1863, aged 57. Has had six children, the last nineteen years ago. Menstruation had ceased for twelve years. Hæmorrhagic discharges began a year ago. At times has floodings, and passes clots; leucorrhœa; lumbar, sacral and abdominal pains very severe; sense of bearing down. Difficult defecation. Has had phlebectasis of left leg for several years. On the 12th inst., a phlegmon appeared on the left calf; it did not break. The saphena vein was varicose, raised in knotty points; induration round these points, indicating thrombi in the veins, and inflammation of the cellular tissues around. The patient was put upon cod-liver oil. In a month the veins were much less swollen and less painful, and she had gained strength, and the hæmorrhage had been diminished. In the course of the next three months, however, she had three smart attacks of flooding. The condition of the veins has not become worse.

Case 4.—*Cancer of Cervix Uteri—Swellings of Glands of Arms and Legs.*—E., aged 54, admitted July 17, 1862. Has had two children, the last twenty-four years ago; has had an abortion since. Menstruated regularly until eight years ago. Has had menorrhagia for the last fifteen months, and constant dragging pains in the hips. The cervix uteri is converted into a cancerous mass; there is extension of the disease to the surrounding tissues, so that the uterus is set fast. She has lately noticed nodular swellings in the forearms and calves. She was ordered quinine and hydrochloric acid, and after a time cod-liver oil. On August 28, the tumours in the arms and legs had quite dispersed, and at the end of September the floodings had much diminished, and altogether the patient's condition had much improved.

These cases (Dr. Barnes observes) are not very uncommon. They may appear to prove that cancerous matter—either the cells, granules, or the cancer-fluid—find their way into the circulation from the primary uterine cancer, by absorption into the veins and lymphatics, or perhaps by direct entry into veins, where ulceration is present. The offending matter, not always cancerous, thus carried into the blood, in the form of emboli or septic fluid, may—1st, give rise to minute peripheral thromboses; 2ndly, in like manner carried as emboli, or irritating ichor, may cause larger thrombi in the larger veins, as the saphena, setting up local phlegmasiæ, or causing œdema from obstruction—even phlegmasia alba dolens—of which a remarkable instance occured in the London Hospital a year ago; 3rdly, the cells, granules, or ichor taken into the lymphatics, and arrested in the lymphatic glands, cause the knots and tumours described in the above cases. It is remarkable, as evidence of the great share which general degradation of the blood bears in this process of thrombosis and lymphatic tumefaction—how marked is the improvement sometimes effected by cod-liver oil, and other tonics. The excellent effect of cod-liver oil especially, in arresting the break-down of the system, the extension of the primary local cancer, and in diminishing the exhausting hæmorrhages, is a fact of which Dr. Barnes' clinique affords numerous and most satisfactory proofs. These cases bear a striking analogy to certain forms of puerperal fever, in which septic matter is absorbed from the uterus injured by labour.

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Medical Times and Gazette.

SATURDAY, JANUARY 9.

THE EDINBURGH MEDICAL EDUCATION SCHEME.

WITHIN the last few days the Medical authorities of Edinburgh have put before the world their views on the subject of Professional Education. The position of Professors Syme and Christison within their own University, as well as their possession of seats in the General Medical Council of Great Britain, gives their opinions great weight; and were other reasons necessary for discussing here the doctrines they have put forth, we might add, that these doctrines have been

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recently published, but not discussed, in the columns of the most widely-circulated of our non-professional contemporaries.

The Edinburgh programme, dealing with the two chief agencies employed in Medical education—compulsory attendance, to wit, upon lectures and examinations, is mainly and briefly this:—Compulsory attendance upon at least certain courses of lectures the Edinburgh Professors advocate; examinations—at least what are in England understood by the name—they consider a great evil; and, finally, they propose, not a substitution of the one system for the other, but a combination and modification of the two.

That something would be found to object to in every solution, by whomsoever attempted, of such a question as that of Medical education, we were prepared to expect. What has surprised us is, that we have found so little to approve of in a scheme endorsed by such names as those we have mentioned.

First, as to the system of examinations. The arguments of Professors Syme and Christison lead directly to the doing away with all examinations whatever; and, though the Professors themselves stop short of the conclusions to which their premises lead, we will not hesitate to say that this would be a most desirable end, if only mankind were possessed of omniscience, and could, by merely looking at a would-be Doctor, look also through and into his mental and moral constitution. Being, however, merely mortals, we are constrained to employ mundane means; and, for the particular purpose in question, examinations in one form or other are the only means we can employ in the present condition of things. The Edinburgh system of examination seems to us, upon the showing of the Edinburgh Professors themselves, to be as bad as anything can be, except the substitute they propose for it; but in a discussion as to the principle upon which trade marks are to be impressed upon particular goods, it is beside the purpose to say, that the imperfection of the machinery employed in a particular place for the purpose, proves anything as to the inexpediency of the practice generally, or "*calls for*" anything but an improvement of the processes. We may, it is true, discard the name, "examination," but so long as we are but men we shall have to retain the thing. In the thing, call it what we will, as in all human systems, there will be an intermixture of good with evil, of bitter with sweet, of drawback with advantage; but it is a fuller statement of the truth to say, that examinations are a mixed evil to the good student, and an unmixed good to the bad one. They hamper and impede the good student a little; they are the sole agency by which the indifferent student is made to work at all. But in drawing up schemes of education, as of all legislation whatever, it is not the excellent few, but the ordinary and indifferent many, whom we ought to have in view. Legislation is intended for the majority in numbers; and in every class of mankind, persons of mediocre abilities, mediocre aims, and mediocre perseverance, the very persons least injured and most benefited by examinations even of the worst kind, make up that majority. If example goes for anything in proving expediency, we would add, that it is their excellent system of examinations, and well-nigh that alone, which has enabled our mediæval English Universities to maintain what hold they have on the respect of the country, and to escape, so far as they have as yet escaped, from the hands of the Radical Reformer.

Compulsory attendance upon Professional lectures has been done away with at the elder of those venerable institutions to which we have just alluded, except in the case of the theological professors, to whom, indeed, protection is extended, not by the University, which has wisely adopted the principles of free trade, but by the bench of bishops. But there is no need to refer to the example of Oxford for the condemnation of the system of compulsory attendance upon lectures. The old proverb, "One man can take a horse to the water, but ten men cannot make him drink," contains in sufficiently plain language all that need be said upon the matter.

The third point is the combination of this system with that of examinations; and with reference to it, it seems to us that, if examinations are well conducted, as we know some are, at all events, in London, they render the question, "Whence did the examinee get his knowledge?" superfluous; and secondly, that, if the system of lecture attendance were as all-sufficient as we believe it to be all-fallacious, we might dispense with examinations as needless and supererogatory. The Edinburgh Professors, it may be said, are not fairly dealt with by proposing this dilemma to them. Their own scheme, however, violates many other laws besides those of logic. In accordance with it, the professor would at once compel his pupils to attend his lectures, and would subsequently himself conduct their examination. Of all possible plans, this seems to us to be the most objectionable; and we hope that it is but put forward provisionally. Its demerits are too numerous and too obvious to be pointed out here. We will only say that, if an attempt should unfortunately be made to carry it into practical working, it will succeed in proving a snare to the professor and a mockery to his pupils, whilst it fails to obtain either security for, or confidence from, the public.

It is obvious that the remarks made at Edinburgh are levelled at the system inaugurated by the London University. But we believe that the Medical Profession feels that it owes a very large debt to that system; and we have good hope that our Medical Council will resolutely refuse its sanction and endorsement to all retrograde movements set on foot against it.

COUNSELS AGAINST COLD.

We must not forget that the clear, frosty weather which has set in is sure to be followed by a large increase in the number of deaths. Without doubt, frost is good for the whole population in the long run. It kills vermin, and breaks up the soil, and renders it more fertile; it gives the power of taking brisk, exhilarating exercise, and it keeps up in the active and vigorous part of our race the power of bearing hardships generally. Healthy people find their spirits, appetite, and strength the better for it. Yet there is a heavy fine to pay for these advantages in the sickness and death of the infant, and aged, and feeble amongst us. The question comes before us—Ought we not, with increase of physical and physiological knowledge, to be able to reap the benefits and escape the penalty?

Amongst deaths which occur in cold weather, let us consider, first, those due to improper exposure. A short time ago, Dr. Lankester held an inquest on an aged gentleman who had gone out fasting to partake of the holy communion, early in the morning, at one of the churches in Marylebone. He died suddenly in the church. During the hard winter of 1860-61, we noticed in this Journal similar cases of sudden death amongst the aged. When the power of rapidly producing heat is lost, a worn-out heart or lungs may easily be paralysed by too low a temperature. For one, however, who dies suddenly out of doors, there are hundreds who die slowly at home: the venous blood, whose heat has been lost and its chemical changes deranged, stagnates in the lungs—hence the congestion and bronchitis which so largely swell the registrar's returns. With the aged, then, as well as with children too young or too feeble to take active exercise, if there be a doubt as to the power of withstanding cold, the patient should have the benefit of the doubt, and be kept at home.

Much has been said, and well said, about the necessity of warm clothing, more especially for keeping the limbs of young children warm as well as the trunk. It should never be forgotten that blood, thoroughly chilled, is poison to the lungs. But something more besides clothing is needed. This preserves warmth, but does not create it or distribute it. Feet cold as frogs, and quite as damp and flabby from cold perspiration, may be muffled hopelessly in the thickest stockings and boots. But take off these wrappings, which shut out the

air, and use soap and water and a good rubbing, and they become warm at once. The custom of *dressing* for dinner, *i.e.*, removing the warm, out-of-door garments, and substituting something lighter, after a good polish with soap and towels, is pre-eminently conducive to health. The colder the weather, the more does the skin require the warm or cold souse and the hearty rubbing.

But here we are met with difficulties arising from an odious piece of stinginess. Young people must not "dress," we are told, lest they should catch cold in their bed-rooms; and they must be excused if they cut short their morning toilette, because it is so cold. Of course. But why not give them a fire in their bed-room? Ought not we to be ashamed of squandering money on delicacies for the belly and finery for the back, and denying our poor children the comforts necessary for cleanliness and health? How we wish that, instead of buying a Christmas "half-dozen hampers" of gin, some people would treat themselves to an extra ton of coals! In a warm room, by a good fire, with a nice hot, dry towel to polish off, a wash with cold water would be felt to be a luxury by any one. But, instead of this, we fear the rule in many middle-class families is to have no bed-room fires, and to rely for warmth on close animal heat and frowsy vapour. Doors and windows are listed up, and chimneys, unconscious of fire, are choked with boards or bags of straw. Well roasted by the parlour fire, and warmed with hot spirits and water, people rush with chattering teeth into their bed-rooms, huddle off their clothes, and jump unwashed into bed. There they get the warmth of blankets and of their own anything-but-perfumed atmosphere, and in the morning rush down to the fire with as little washing as possible. The water jug is frozen and the towels are frozen, and we forgive any one who demurs to a frozen towel.

Cold weather proves to us how deficient our houses are as habitations for really civilised beings. We may warm our rooms with blazing fires; but the draught that feeds the fire chills the people that cower round it, because we have no means of warming the house as a whole. There is a phenomenon, too, known as *back smoke*, which shows that in two rooms out of three we depend for fresh air upon the supply that comes down the chimney. The last thing we think of is, where does our air supply come from?

When we add to the want of fresh air the defective supply of water, caused by freezing of the service pipes, owing to the wilful stupidity of plumbers, who always will arrange those pipes in a manner which makes them most exposed to frost; and when we superadd the impossibility there sometimes is of getting rid of slops and liquid refuse, through the freezing of sinks and closets, we say enough to show why very cold weather is by no means always a healthy time in-doors. But things are not mended when a thaw comes. Then the warm outer air comes into the cold house, and deposits wet upon every wall. Then leaks made in the pipes during the frost begin to show themselves; and when the high pressure service is turned on early in the morning, the house may be deluged with water, running down-stairs, soaking carpets, going through floors and washing down ceilings, leaving it as badly off as if it had been next door to a fire. In order to avert this crowning calamity, every householder should know where the tap is by which to turn off the water at a minute's notice. But as this is a part of household furniture not wanted, perhaps, once in a lifetime, we suspect that few persons know of its existence.

In fine, our counsels against cold are, to keep the delicate in-doors; to warm houses, taking care that there shall be no lack of fresh air; to allow bedroom fires liberally, and keep them all night in the chambers of the aged and young; to clothe warmly, and yet to give the skin an extra share of oxygenation by washing and rubbing; to give abundant diet, and yet to avoid indigestibles; to drink cold drinks rather than hot; and, above all, to eschew hot spirits and water.

THE WEEK.

THE NEW PRESIDENT OF THE MEDICAL COUNCIL.

It appears that Dr. Watson is unwilling to accept the Presidency of the General Council, and to add thereby to the great amount of Professional and administrative work which is already incumbent on him. Under these circumstances, there is little doubt that Dr. George Burrows will be nominated, and if nominated, that he will be elected. The manly and spirited tone of Dr. Burrows' remarks at the London meeting of the British Medical Association pointed him out as the right man to take the helm. A vacancy will thus be created amongst the Councillors, which the College of Physicians will have to fill up.

HOSPITAL ADVERTISING.

In the last number of this Journal we deemed it our duty to call attention to a very questionable advertisement on behalf of University College Hospital, which has lately been circulated in almost every newspaper. We are now informed, on the best authority, that the advertisement in question was not published or authorised by any of the officers of the Hospital, and that it was not signed either by the Secretary or the Clerk, which, had it emanated from the Council or Committee, would have been the case. The advertisement, it seems, was the production of a person who has just been appointed to collect money for the Hospital; and we are also informed that the only Hospital authority in town at the time took measures to suppress it before the notice appeared in this Journal. We are glad to give publicity to this statement. Of course, neither our Professional readers nor ourselves supposed that the Medical Officers attached to the Hospital could ever have given their sanction to such a reprehensible mode of gaining support for their charity. But as the advertisement has been very widely circulated both in the weekly and daily papers, we are sure that the Medical staff will be grateful to us for bringing the affair under their notice, and enabling us to prove what we before asserted, that they had no share in the matter.

FITZGERALD *v.* FITZGERALD.

If we wanted a text to discourse on the manner in which a professional reputation may be talked away in mere wantonness by unprincipled or interested persons, we should find it in the details of the action of Fitzgerald *v.* Fitzgerald, which has lately occupied the Divorce Court. As the particulars of this most creditable case have been widely published and commented on, we need not reproduce them. The accusations against Mr. Perry in which the Major and Mrs. Fitzgerald indulged, were proved to have been made on the testimony of so many witnesses, that we are bound to believe that they were not all under an illusion, in spite even of *her* denial. Mr. Perry, a Fellow of the Royal College of Surgeons, and a Practitioner of thirty years' standing, was called to attend Mrs. Fitzgerald two or three days after one of those matrimonial misunderstandings in which the lady was so frequently and so unhappily engaged. She was at that time in the eighth month of her pregnancy, and Mr. Perry had no hesitation in asserting the child was dead. He simply made a slight manual examination. The theory which the lady appears to have entertained was, that the husband had killed the child by his violence, whilst his friends seem to have believed that the cause of its death was the ungovernable fury into which Mrs. Fitzgerald had allowed herself to be betrayed. However, it does not seem that either of these theories at first suited Mrs. Fitzgerald or the Major, so the suggestion of a third party, and that the unfortunate Doctor, being the cause of the catastrophe, was started and adopted. We just extract from the evidence one or two instances of the charitable and kind manner in which Mr. Perry's reputation was made a scapegoat by this attached couple:—

"Lady Ann Maria Sherson: I am the wife of Captain

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Sherson. I knew Mrs. Fitzgerald slightly before her marriage, and I renewed my acquaintance with her in 1858 or 1859. I called on her in Chester-street before and after her confinement. About a month after her confinement she told me that Dr. Perry had examined her so roughly that he had caused the death of the child. She spoke of her husband in most affectionate terms. She called on me in the middle of March, 1862, and talked about the Major's conduct to her. I said very little. Three of my children were seriously ill, and I told her that Dr. Perry was attending them, and that he intended to call in some one else. She said something to the effect that she was glad of it, for she had no opinion of him after his treatment of her.

"Caroline Temple: Major and Mrs. Fitzgerald lodged with me at 4, Charles-street, Lowndes-square, in 1859 and 1860. They came on November 28, 1859, and stayed till April 23, 1860. The Major's conduct towards his wife was most kind. I have frequently conversed with her about her being in the family way. She said that Dr. Perry had caused the child's death. I said it was a cruel thing to say of a gentleman in practice, and in my opinion she would never have a child on account of the violence of her temper. I had frequently seen her violent."

Of course, we all know that Medical men, of all professional grades, are liable to this kind of thing. But the *naïveté* and apparent absence of any misgiving with which the charge was invented and promulgated in this case, is not a little curious. At all events, it is not often that such a revelation of the amiable scandal of the *boudoir* is given to the world.

METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH —MEAT FROM DISEASED ANIMALS.

The Metropolitan Association of Medical Officers of Health, having undertaken the investigation of the effect of diseased meat upon the health of those who consume it, are desirous of collecting all the facts upon the subject that are in any way obtainable. They feel convinced that such facts must be in the possession of many Practitioners, and, consequently, they ask their assistance in their endeavour to determine this,—one of the most important questions which can engage the attention of a sanitary association. Some kinds of diseased meat may be injurious, others not; some at one stage and not at another of the disease in the animal; it may be injurious if long kept, and not if eaten immediately it is killed; or to a person out of health, and not to one that is healthy; when badly cooked, and not when thoroughly cooked, etc., etc. The Association will feel greatly obliged if such Practitioners as are in a position to do so would forward to the President or Secretaries any information which they can give upon the subject. It is desirable *to obtain negative* as well as positive facts. They would further add, that even when diseased meat fails immediately to damage health by setting up an acute ailment, its *prolonged* use may yet operate injuriously. It is possible that gentlemen having charge of large establishments supplied by contract may be in the way of giving the fullest information on this branch of the inquiry.

In the detail of any cases that may be kindly forwarded, the Association begs that as many of the following particulars as possible may be included:—

1. The nature and stage of the disease in the animal.
2. The physical characters of the meat.
3. The degree of cooking it had undergone.
4. Whether kept several days after cooking, and under what circumstances.
5. The effects on persons consuming the meat.
6. Any post-mortem appearances where death has resulted.
7. Any experiments undertaken to establish the connection between the use of the meat and the disorders supposed to be its result.

R. D. Thomson, *President.*
G. Buchanan, J. N. Vinen, } *Secretaries.*

December 26, 1863.

Communications to be addressed—Court House, Marylebone, London.

POPULAR MEDICAL BOOKS.

Popular Medical books always deserve notice. To be written well they require such good sense and good taste as may fairly be commended. If ill done, they bewray our Profession most unpleasantly, and we have a right to rebuke one who comes forward unasked as our spokesman, and does us discredit. To make a good popular book, the Medical writer should take matter on which the Profession is agreed, and should earn distinction by the clearness with which he expounds physiological doctrines already acknowledged by us, and by the force with which he urges the habits or practice that should follow. Above all, self should be kept out of sight. The public should be taught what we as a body believe and know; and the lecture should not be made a vehicle of the peculiar opinions or practice of its author. If he has anything new or rare, let him tell it to his brethren; and, when we have all sifted and tested it, the public may be told of it with probability of usefulness to them, and of the preservation of self-respect and decorum amongst ourselves. We are led to these remarks by a discourse on consumption,(a) by Dr. Shepherd Fletcher, which was delivered at the request of the Manchester and Salford Sanitary Association, and is now published in a separate form. It contains a great deal of useful information clearly put, but yet it scarcely comes up to our ideal, nor earns for the author the credit which it might have done. He describes himself in the Preface as holding "views as to the early changes in consumption which are not those held by the majority of the Profession," and adopting "many points in the preventive treatment" which are not generally advised. We can assure him, on the contrary, that there is nothing which he tells us of real value which is not pretty universally known and acted upon. He speaks with great good sense and clearness on the necessity for pure air, the advantage of an open-air life, of abundant exercise, nourishing food, clean skin, etc.; but in all this there is nothing new. The only special point which he seems to us to claim for his own is the necessity of adopting measures for promoting the expansion of the upper part of the chest. But his means to his end are not new in principle, and seem singularly uncomfortable in practice. To tell a man with consumptive tendencies to stand with his back against a wall "for at least five to ten minutes every morning, without once failing, before fully dressing, and for the same time at night," and during these minutes to inhale forcibly through the nose, so as thoroughly to expand the chest, and hold the breath for a short time to keep up the distension—this, we say, is to give a direction which is irksome, tedious, and, we suspect, impracticable to most people. Why not tell him to take a good run, or to fence, or to sing, or play the flute? Who can doubt the expansion of the chest during a good bout of *sol-fa-ing*? We notice several of the littlenesses which infest most books of the sort. For instance, "pork, veal, and ham" are not to be eaten. Why not? If patients are to use "fat and animal oils" freely, why not pork? And why not that delicious fat of a loin of veal in which nestles the kidney? As for ham—there may be some tough as hickory wood, from which any stomach may pray to be delivered—but a nice, juicy, well-flavoured, tender, home-cured ham—why not allow a slice of both fat and lean at breakfast? When shall we hear the last of that dismal talk about "young ladies, who have been clad in woollen and furs all day," and who "go with the upper half of the chest free from all covering, or, at most, covered with only thin gauze, to crowded ball-rooms at night," etc., etc., etc. Let the popular sanitarian or the puritan say what he will, we defend the denuded full-dress costume of young women on every ground of health, as well as of beauty. It is infinitely good to *dress* for the evening; it involves *petits soins* of the toilette which must conduce to purity of complexion, and,

(a) Consumption: its Causes, Prevention, and Cure. A Popular Discourse. By Shepherd Fletcher, M.D., late Lecturer on Anatomy at the Chatham-street School of Anatomy, Manchester. Pp. 78.

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consequently, to health. Many a girl, chilly and crouching over a fire all day, derives warmth and cheerfulness from the exchange of high furs and flannels for free exposure to the warm air of the *salon;* and we suspect that no man will honestly say that he does not like to look at the "upper half of the chest" of a handsome woman. Dr. Fletcher's reader will be left in a state of puzzle between theoretical views, which at one time describe vital changes as abnormally active, and requiring to be repressed by alcohol, and at another enforce the necessity of promoting the acts of oxidation and excretion of urea. A diet scale is given for infants, which is pure starvation. Luckily, any child so attempted to be reared would yell so frightfully as to compel its nurse to give it more food. Were it not for this lucky provision of Nature, the slaughter of babies brought up by rules such as Dr. Fletcher's and those of the Ladies' Sanitary Association would be prodigious. We likewise demur to our author's dictum, that "consumption finds its victims mainly amongst the sweetest and most beautiful." If he had said that many consumptive girls are *pretty*, we should agree with him; but true beauty is inconsistent with the precocious prettiness and fragile conformation of the phthisical; whilst the disease selects far more numerous victims amongst the dusky and stunted.

FROM ABROAD.—ILL-TREATMENT OF PRISONERS BY THE CONFEDERATES—POOR-LAW MEDICAL OFFICERS IN FRANCE—ANNUAL MEETING OF THE ACADÉMIE DES SCIENCES, AND DISTRIBUTION OF PRIZES.

AUTHENTIC accounts have now been brought concerning the condition of the Federal prisoners at Richmond, by several Surgeons who have been recently liberated. This seems to be most deplorable, both as regards the state of the prisons in which they are confined, and the deficiency in the amount and bad character of the food supplied. In and near Richmond, there are stated to be about 10,000 prisoners, of which number 1000 are treated as sick, with a daily mortality of 5 per 1000, or 1825 per 1000 per annum. The prevalent diseases are diarrhœa, dysentery, and typhoid, produced by overcrowding in unventilated rooms, and semi-starvation. Men have been brought to the Hospital literally starving to death; and were it not for supplies sent through the agency of the United States Sanitary Commission none would have escaped the pangs of hunger. It is to be feared that this condition of things cannot be entirely explained by the scarcity of food and clothing which prevails at Richmond, as there is good evidence to prove that much of the cruelty has been deliberately inflicted. This treatment of prisoners is strikingly in contrast with that pursued by the Federal Government with respect to Confederate prisoners, who are treated with every care and consideration. Unfortunately, matters are more likely to become worse than otherwise; for the resolution to exchange no more prisoners, until black soldiers are placed upon the same footing as white ones, will lead to an indefinite prolongation of the captivity of the Federals; while a determination on the part of the South to allow no more supplies to be sent to them by the agency of the United States Sanitary Commission, will add greatly to the horrors of their situation.

The French Medical officers of the poor seem to be suffering from inadequate payment, like those of our own country, but they have the advantage of us in the possession of a more prompt remedy. It is some satisfaction to find that the system of arbitrary decrees which at present constitutes the *regime* in France, is sometimes turned to so beneficial a purpose. One of the little viceroys of the country, the Préfet du Nord, has just addressed a letter to the mayors and members of the *bureaux de bienfaisance* of his department to the following effect:—

"My attention has been drawn to the ill-remunerated condition of the Medical officers of the *bureaux de bienfaisance*. The services which the Doctors of the poor render in the rural districts are of too great an importance, and these Practitioners are, as a general rule, too devoted to their duties, for it not to be desirable and just that a remuneration more proportionate than it is at present to the services they render, and to the resources of the charitable establishments, should be allowed them. I therefore beg of you, when the budgets of the *bureaux* are arranged, that you should examine into what can be done in this matter; and, if the resources at your disposal are defective, I shall look upon the intervention of the municipal councils with pleasure, and will hasten to make the advances which may be asked for."

The Academy of Sciences of France held its public annual meeting for the distribution of prizes, and the delivery of orations to the memory of departed members, on December 28. M. Flourens delivered one of his exquisite sketches, taking Duméril for his subject, but really devoting the greater portion of his address to the glorification of his illustrious master, Cuvier. In his discourse, Cuvier's great antagonists, Geoffroy St. Hilaire and De Blainvielle, were, perhaps, somewhat unjustly treated; but the entire oration was one of great interest, and we hope to return to it. In the mean time, we will enumerate the prize-holders.

First, we have the Montyon prize in Experimental Physiology, which has been decreed to M. Armand Moreau for his memoir on the "Swimming-bladder of fish." Humboldt and Biot had found by analysis, at the beginning of the present century, that the oxygen and nitrogen contained in the swimming-bladder of fish exhibited most remarkable changes in their proportion, varying from 90 per cent. of oxygen to 90 per cent. of nitrogen. M. Moreau has shown experimentally that, in proportion as the air is removed from the bladder, it is replaced by oxygen, so that the oftener the air is removed, the greater becomes the proportion of this gas when the fish is again set at liberty. If, however, the animal be not in full health, the amount of oxygen diminishes; and when a fish is asphyxiated, and can no longer obtain a supply of oxygen from the surrounding medium, he obtains it from the gas of his swimming-bladder until the supply there is entirely exhausted. Another prize has also been adjudged this year to MM. Philipeaux and Vulpian for two memoirs on the physiology of the nervous system. One of these is entitled, "Researches on the union, end to end, of sensitive nervous fibres with motory nervous fibres;" and the other, "On a physiological modification which is induced in the lingual nerve in consequence of the temporary abolition of the motricity of the hypoglossal of the same side." An "honourable mention" was also decreed to M. Bataille for his researches on the human voice by the aid of the laryngoscope. M. Haeckel's magnificent work on the "Radiaria of the Mediterranean" was also referred to with commendation, but it was not considered to fall within the conditions of the competition. The prize in Medicine and Surgery has been decreed to M. Chassaignac for his mode of treatment, termed *ecrasement linéaire*—a somewhat tardy recognition of what must be considered, in spite of the exaggerated value and extensibility attributed to it by its inventor, as a great Surgical improvement. "Honourable mentions" were decreed to M. Debout for his memoir on "Vicious conformations produced by the arrest of the development of the limbs;" to M. Gallois for his memoir on "Inosuria," *i.e.*, the passage of *inosite* into the urine; to M. Bourdon for having discovered the anatomical lesion in "*ataxie locomotrice progressive*," this consisting essentially in a degeneration, with atrophy of the nervous tubes, of the posterior spinal roots and the posterior columns of the spinal cord, and in an analogous alteration of the nervous cells of the grey substance; and to M. Cahen, for a remarkable monograph on "Vaso-motory neuroses and their treatment." Prizes for memoirs on the insalubrious arts have been decreed to M. Grimaux de Caux for his work on the "Water-supply of large towns and rural localities;" to M. Guignet for the preparation of an innocuous chrome green, suited for the dyeing of tissues and the manufacture of wall-papers; and to M. Bouffé, for having substituted for arsenical greens in the colouring of artificial flowers, a green resulting

from a combination of picric acid with Guignet's green. The Cuvier prize, as we have already noticed, has been presented to Sir Roderick Murchison, this being the first instance of its having been conferred on a geologist. A Bordin prize—subject, "The vessels of the latex of plants"—has been divided between Dr. Leopold Dippel, of Idar, Oldenburgh, and Dr. John Hanstein, of Berlin; and another Bordin prize—subject, "The anatomy and physiology of coral, and other zoophytes of the same family"—has been awarded to M. Lacaze-Duthiers. The Chemical Section has decreed the Jecker prize of 5000 francs to Dr. Hoffmann, of London, for his works on organic chemistry, and especially for those relating to the artificial inorganic alkalies. The Barbier prize, in relation to medicinal plants, has been divided between M. Lepine, for his work on the Indian Materia Medica, and M. Viellard, on the medicinal and alimentary plants peculiar to New Caledonia.

The following are the subjects for future prizes:—1. The Great prize (a gold medal value 3000 francs) in the physical sciences for 1864—"The comparative anatomy of the nervous system in fishes." Essays to be sent in by September 2, 1864. Another prize for 1866, "The production of hybrid animals by artificial fecundation." The prize for 1865 is to be given for the "osteographic work which shall have most contributed to the advance of French palæontology." 2. The Montyon prize in experimental physiology, a gold medal of 800 francs, for 1864, 1865, and 1866, will be adjudged to the author of the work, whether printed or manuscript, which has most contributed to the progress of experimental physiology. Works or essays to be delivered bofore April 1 of each year. 3. The prize in Medicine and Surgery. According to the provisions of M. Montyon's will, the Academy will annually adjudge one or more prizes to the authors of the best works on "The art of healing, or to those who may discover the means of rendering an art or occupation less unhealthy." Works to be sent in by April 1 of each year. For the year 1864 the subject of the prize in Medicine of 5000 francs will be "The history of Pellagra;" and for 1866, "The application of electricity to therapeutics." For the prize in Surgery of 20,000 francs, the subject is "The preservation of the limbs by the preservation of the periosteum." 4. The Cuvier prize of 1866, a gold medal of 1500 francs in value, will be given to the author of the most remarkable work upon the animal kingdom or geology that may be published since January 1, 1863. 5. The Bordin prize for 1865, of a gold medal, 3000 francs in value, will be given for the best essay on the following subject:—"Exhibit experimentally the causes of the inequality of absorption by different plants of the saline solutions of various nature contained in the soil, and demonstrate, by an anatomical study of the roots, the relations which may exist between the tissues which constitute them and the matters which they absorb or excrete." For 1866, the subject is—"Determine by anatomical investigation whether there exist in the stems of plants characters proper to the great natural families, and in accordance with those derived from the organs of reproduction." 6. The Bréant prize, of 100,000 francs, awaits the discoverer of the causes or the cure of cholera; and, in the meantime, the interest of this sum is to be made payable to whoever may be considered to have advanced the study of this or other epidemic disease, or who may discover the cure of "*dartres*." 7. The Jecker prize for 1864 will be decreed to whoever may be considered to have most advanced the progress of organic chemistry. 8. The Barbier prize for 1864 will be accorded for the best work on chemistry or Medical botany forwarded to the Academy by April 1. 9. The Godard prize for 1865 is to be given for the best memoir on "The anatomy, physiology, and pathology of the genito-urinary organs."

GUY'S HOSPITAL.—The Right Hon. Sir Lawrence Peel, Bart., has been unanimously elected President of the Hospital in the vacancy occasioned by the decease of Mr. Bonamy Dobree.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

(Continued from page 21.)

RESUMING the history of the museum of the Norfolk and Norwich Hospital, I would lead the reader to a very interesting cabinet of old Surgical instruments. Blunt gorgets and sharp gorgets, and "lithotomies" of every kind, shine here. There is a mysterious pair of bellows with a wooden collar, evidently intended for artificial respiration, but which the prince of the power of the air himself could not comprehend, if he were not told by its inventor. By its side there is another instrument which no one could mistake at first sight for a small hurdy-gurdy with the strings off, the handles, the wheels, and the outlines altogether, are so complete. What is it? On further acquaintance it turns out to be an uterine speculum. How it was used is better imagined than described. I would prefer to leave the description of it to Dr. Robert Lee, who alone is capable of treating such an instrument as it deserves.

I could linger longer over this cabinet, and I must stay to describe one other old-new instrument. In a quiet corner there hangs a harmless looking weapon; surely an old-fashioned boot-hook, with the handle in the wrong axis for the purpose of accommodating Hessians and pantaloon legs. We take it out, and, lo! it is no boot-hook (shame on the unpremeditated suspicion!) but a veritable rectangular staff, with side groove and all else like the modern staff. The only difference between it and the instrument invented by Dr. Buchanan is, that at the angle there is a gentle curve, and that the instrument is mounted with a handle, which stands transversely across the stem. From the character of this staff, as a work of mechanical art, I should judge that it is at least from seventy to a hundred years old; or it may have been of local construction, perhaps a trial instrument,—but its intention is clear enough. No history attaches to it, and I cannot offer any opinion as to who may have been its inventor. I could not ascertain that it had ever been used in the practice of the Hospital in modern times, or that it was ever considered otherwise than a Surgical curiosity.

But the most valuable cabinets in the museum of the Norwich Hospital are those containing the calculi. The pathologist who wishes to see every variety of calculus, and to learn the largest number of facts in relation to lithotomy, should begin to study here. He will find collected for him, arranged, and classified, *one thousand six hundred and forty specimens*; each specimen mounted with a ticket stating the age of the patient from whom the calculus was removed, the exact weight of the stone, the date of the extraction, and the result of the operation. He will also find an analysis of 663 of the specimens, and will only regret, that since the time of Dr. Yelloly this mode of examination has not been continued.

Amongst so many forms of calculus one would expect to discover certain points of great interest, pathologically and surgically. It is so. Thus we look in vain through the whole collection for one single illustration either of the xanthic or cystic oxide calculus. Indeed, these varieties are unknown in the county of Norfolk. There is one very perfect specimen —the most perfect I have ever seen—of mulberry calculus, and a large phosphatic calculus weighing eight ounces and a-half, respecting which there is an interesting history. The patient from whom this calculus was removed was a youth of 18. On May 18, 1836, he was put on the table, to be operated upon by Mr. Dalrymple. The famous Surgeon, Liston, was present, watching the operation. Mr. Dalrymple cut into the bladder, reached the stone, but could not extract. Liston took a turn, and failed also. The patient, therefore, was replaced in bed without having the stone extracted. Afterwards it was removed in segments, but the case terminated fatally.

There is another large calculus, weight six ounces, which was spontaneously extruded from the bladder of a female.

The most famous calculus, however,—the most famous of this, and perhaps of any museum,—is one which weighs nearly fifteen ounces, and which was removed from the human subject by Mr. Harmer, of Norwich. Gooch has preserved for us the account of this singular instance of calculus. The patient was a man forty-eight years of age, who had been subject to stone from infancy, and who ought to have been cut at eight years of age. He was a robust man, but intemperate. He was operated on on the 8th of June, 1746, by Mr. Harmer, Gooch being present,—the operation known as the Marian, a

median operation named after Marianus Sanctus, but really the invention of Johannes de Romanis, his master. After getting into the bladder through a wound of the common size, Mr. Harmer found it impossible to extract, neither could he break the stone; Gooch, therefore, at his desire, gradually enlarged the wound with a knife, while he (Harmer) kept up a gentle extraction. By this means the stone was removed. The man recovered without a dangerous symptom, but the wound did not heal. "On the contrary, it remained," says the narrator, "in a foul and bad condition, and was made worse by being constantly wetted with urine, which prevented all applications from taking their proper effect. These circumstances induced the man to endeavour to tempt a little favourite dog to lick the parts; and in a short time he was so well instructed in his business, that whenever his master laid down and uncovered them, he immediately went to work with his tongue, which afforded a pleasing sensation; and then the application of soft dry linen cloths gave him more ease than any applications his Surgeon furnished him with. As long as he lived his dog was his surgeon, and kept the wound tolerably clean and easy, to his great comfort and satisfaction, as he often told me." Gooch adds to this account a remark by Belloste, on the "balsamic virtues of a dog's tongue"—virtues believed in to the present day by residents in rural places of England. The patient who yielded the fifteen-ounce calculus lived until April, 1751, and walked abroad until a few days before his death. To give the reader an idea of this calculus, Mr. Churchill has had it engraved, from a rare print by Gooch. The accompanying woodcut represents the exact size and outline.

The calculus was held by Gooch until his death, and then for a time was lost. At last it was regained by the late Mr. Crosse, and deposited in the museum. The appearance of the calculus is precisely the same as in the drawing. Gooch described it as "of hard texture," with "a substance like spar, to a considerable thickness, upon many parts of its surface." Somewhat recently it has been divided into two segments, and an analysis has been made of a part of it by an eminent local analyst, Mr. Sutton, who has kindly favoured me with the particulars. These are rendered in the table subjoined:

COMPLETE ANALYSIS OF LARGE CALCULUS IN THE NORFOLK AND NORWICH HOSPITAL MUSEUM.

The calculus consisted of three distinct layers.

Nucleus.

	Per cent.
Oxalate of lime	31·08
Uric acid	65·66
Silica, animal matter, and loss	3·26
	100·00

Inner Ring.

Uric acid	81·52
Phosphate of magnesia and ammonia	2·34
Animal matter	13·90
Insoluble matter, silica, and loss	2·24
	100·00

Outer Ring.

Phosphate of magnesia and ammonia	57·20
Carbonate of Lime	16·67
Uric acid	·82
Animal matter	24·37
Insoluble matter, silica, and loss	·94
	100·00

A notice of the calculi of the Norwich Hospital museum would not be complete unless an accurate description of their composition was supplied. I have already said that analyses had been made of 663 specimens by Dr. Yelloly (excluding the analysis of the large calculus). My friend Mr. Williams, the Resident-Surgeon of the Hospital, whom, for all his kindness and research, I cannot thank too much—has been good enough to tabulate for me the result of Dr. Yelloly's inquiries. The facts are taken from a paper published in 1838:

CALCULI IN THE MUSEUM OF THE NORFOLK AND NORWICH HOSPITAL.

ANALYSED BY DR. YELLOLY.

First Group.—Calculi consisting principally of One Deposit.

Lithic acid	164
Lithate of ammonia	55
Oxalate of lime	21
Phosphate of lime	5
Mixed phosphates	35

Second Group.—Calculi consisting of Two Deposits.

Lithic acid and lithate of ammonia	49
,, and oxalate of lime	10
,, and mixed phosphates	15
,, and phosphate of lime	8
Lithate of ammonia and lithic acid	21
,, and oxalate of lime	63
,, and mixed phosphates	22
,, and phosphate of lime	9
Oxalate of lime and lithic acid	15
,, and lithate of ammonia	3
,, and mixed phosphates	20
,, and phosphate of lime	7
,, and silex	1
Mixed phosphates and oxalate of lime	1
,, and phosphate of lime	2
Phosphates of lime and mixed phosphates	3
,, and oxalate of lime	1

Third Group.—Calculi consisting of Three Deposits.

Lithic acid, oxalate of lime, and phosphate of lime	2
,, ,, and lithate of ammonia	4
,, ,, and lithic acid	5
,, lithate of ammonia, and oxalate of lime	2
,, ,, and lithic acid	2
,, ,, and mixed phosphates	2
,, oxalate of lime, and mixed phosphates	3

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Lithate of ammonia, oxalate of lime, and mixed phosphates	13
,, ,, and phosphate of lime	13
,, ,, and lithic acid . .	16
,, ,, and lithate of ammonia	7
,, phosphate of lime, and lithate of ammonia	1
,, ,, and lithic acid . .	1
,, ,, and oxalate of lime .	1
,, ,, and mixed phosphates	4
,, lithic acid, and mixed phosphates . .	6
,, ,, and lithate of ammonia .	1
,, ,, and phosphate of lime . .	4
,, ,, and oxalate of lime . .	3
Oxalate of lime, lithic acid, and lithate of ammonia .	3
,, ,, and oxalate of lime . .	3
,, ,, and mixed phosphates . .	5
,, ,, and phosphate of lime . .	1
,, lithate of ammonia, and phosphate of lime	3
,, ,, and oxalate of lime .	2
Mixed phosphates, phosphate of lime, and mixed phosphates	1

Fourth Group.—Calculi consisting of Four Deposits.

Lithic acid, lithate of ammonia, lithic acid, and lithate of ammonia	1
Lithic acid, oxalate of lime, lithate of ammonia, and phosphate of lime	1
Lithic acid, oxalate of lime, lithic acid, and oxalate of lime	1
,, ,, ,, and lithate of ammonia	2
Lithate of ammonia, oxalate of lime, lithate of ammonia, and mixed phosphates	5
Lithate of ammonia, oxalate of lime, lithate of ammonia, and oxalate of lime	3
Lithate of ammonia, oxalate of lime, mixed phosphates, and oxalate of lime	2
Lithate of ammonia, oxalate of lime, lithic acid, and lithate of ammonia	1
Lithate of ammonia, oxalate of lime, phosphate of lime, and mixed phosphates	1
Lithate of ammonia, oxalate of lime, lithic acid, and mixed phosphates	1
Lithate of ammonia, oxalate of lime, lithic acid, and oxalate of lime	1
Lithate of ammonia, oxalate of lime, lithate of ammonia, and lithic acid	1
Lithate of ammonia, phosphate of lime, oxalate of lime, and lithate of ammonia	1
Oxalate of lime, lithic acid, lithate of ammonia, and lithic acid	1
Oxalate of lime, lithic acid, oxalate of lime, and phosphate of lime	1
Oxalate of lime, lithic acid, oxalate of lime, and mixed phosphates	1
Oxalate of lime, lithic acid, lithate of ammonia, and mixed phosphates	1
Total	663

I would invite special attention to these tables, as bearing on a question to be discussed ultimately, relative to the prevalence of calculous diseases in Norfolk, and of the causes of calculus in general.

Practice of the Hospital—Lithotomy.

From the museum we may pass to the consideration of certain of the points of practice in the Norfolk and Norwich Hospital. And, first, we may turn with advantage to an operation for which the Surgeons of this Hospital have become most famous—I mean *lithotomy*.

During the ninety years in which the institution has been in existence, lithotomy has been performed—I am writing up to the present moment—917 times. Seven cases, however, are so recent that, in estimating the results of the practice, it is fair to exclude them from the list. We have left, therefore, 910 cases, of which perfect records have been kept. Mr. Williams has been kind enough to carry out for me an analysis of the facts yielded, which analysis is herewith appended :—

Lithotomy Statistics of the Norfolk and Norwich Hospital.

Time included.—Ninety years (1773-1863).

Operators.—Messrs. Maltby, Rogers, Donne, Jonathan Matchett, Alderson, Rigby, Palgrave, Philip Martineau, William Dalrymple, Colman, Bond, Scott, Thomas Martineau, John Green Crosse, Carter, Norgate, Johnson, A. Dalrymple, Firth, Nichols, Cadge, and Thomas William Crosse.

Number of Cases.—910.

Sexes.—Males, 869 ; *Females*, 41.

Total Results.—Cures, 792; *Deaths*, 118.

Median Operations.—41.

Deaths after Median Operation.—11.

Deaths after all Operations, according to the Sexes.—Males, 108 ; *Females*, 2.

Deaths at Decennial Periods of Life.

Age.	Operations.	Cured.	Died.	Mortality.	Operations.	Cured.	Died.	Mortality.	Operations.	Cured.	Died.	Mortality.
1 to 10	328	306	22	1 in 14·909								
10 ,, 14	55	53	2	1 ,, 27·5	455	421	34	1 in 13·38				
14 ,, 20	72	62	10	1 ,, 7·2					574	532	42	1 in 13·6
20 ,, 30	59	55	4	1 ,, 14·75	119	111	8	1 ,, 14·875				
30 ,, 40	60	56	4	1 ,, 15								
40 ,, 50	58	47	11	1 ,, 5·27	190	155	35	1 ,, 5·42				
50 ,, 60	132	108	24	1 ,, 5·5					336	260	76	1 ,, 4·42
60 ,, 70	119	87	32	1 ,, 3·71	146	105	41	1 ,, 3·56				
70 ,, 80	27	18	9	1 ,, 3								
Total..	910	792	118	1 in 7·71	910	792	118	1 in 7·71	910	792	118	1 in 7·71

Abstract.

Sex.	Operations.	Cured.	Died.	Mortality.
Both sexes	910	792	118	1 in 7·71
Males	869	753	116	1 ,, 7·49
Females	41	39	2	1 ,, 20·5

With the exception of a series of operations for stone performed by Mr. Stedman at Aden, these are probably the most successful statistics of lithotomy that have ever been presented to the world. On two occasions, Dr. Copeman states that forty cases of stone were operated on without a single death. In the first of these periods the forty operations were all performed by one Surgeon, Mr. Martineau ; in the second by three Surgeons, Messrs. Dalrymple, Crosse, and Norgate, in successive operations.

It must be a useful study to inquire into the reason or the probable reason of this immense success—a success which, by the side of the practice of many other Hospitals, stands as four to one. If the same number of operations had, for instance, been performed in Metropolitan Hospitals, the deaths would, on the modern average, have been 472 instead of 118. Why ? Some will tell us that all turns on the selection of cases. The statement will not hold good, for in the Norwich Hospital, the Surgeons, emboldened by their success, have perhaps been less cautious in their selections than others ; they have all been bold operators, and it would be false to suspect them of any attempt to make out a strong case by selection ; or, indeed, of having premeditated any of the results which they have obtained. Others will tell us that it is the superior skill of the Surgeons. Can it be so ? Norwich has always had first-class Surgeons we know ; but London believes, and very correctly, that she has had fine Surgeons also, and fine lithotomists especially. A third class may tell us that the mode in which the operation has been performed—I mean, of course, the kind of operation—has determined the results ; and, in fact, some countenance is given to this view by the mortality following the forty-one median operations as compared with the mortality following the remainder of the operations, all of which I believe have been lateral. For it will be observed that the mortality after the median operation is not less than 1 in 3·72, while the mortality from all the other operations, the medians excluded, is only 1 in 8·13. These facts certainly tell largely in favour of the lateral operation ; and when put by the side of those of Mr. Stedman, who operated over seventy times without a death, and of Cheselden, who operated, by his own lateral method, on twenty-seven patients in succession without a death (a result unknown as following on the median operation of Marianus Sanctus), we are bound, I think, to admit that the median operation by the side of the lateral does not contrast favourably.

At the same time, these comparisons do not really affect the question, because, in truth, the median operation has not, for the past ninety years, been *the* operation for stone anywhere. But the lateral operation—Cheselden's operation, as it should be called—has been *the* operation everywhere ; while, again, the median itself—the most fatal of all in Norwich—has been more successful there, in forty-one cases, than any kind of

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cutting operation for stone performed, perhaps, in this century in the London Hospitals; since the deaths, after the median at Norwich, are, at most, but 1 in 3·72, or nearly 1 in 4, instead of 1 in 2, or even 1 in 1·88, as is common in London.

But if neither the selection of cases, nor the skill of the Surgeons, nor the character of the operations, have given to the Profession of Norwich such a magnificent harvest, and thrown around their Hospital so bright a fame, what is the directing cause? Good luck? There is no such thing below the surface of fact. Good luck simply means, in all cases, that some unappreciated cause has been at work doing what has been done; and in the Norwich Hospital there has been no mythical subtlety, but one great and ever-pervading element of success,—not good luck, but *good air*. When Benjamin Gooch absorbed from Dr. Hunter that simple lesson, told in my last paper, about the necessity of having free ventilation, and plenty of cubic space for each patient, he achieved half the success that was to come; when he applied the lesson, he, seconded by his able followers, achieved the rest.

The modern student who would be not only the most skilful but the most successful Surgeon of the future, will do well to study the great lesson which has been rendered to science by the statistics of the Norwich Hospital. He will look in vain for any information of a profitable kind in his treatises on Surgery. He will find in them line upon line, and page upon page, respecting needles, and knives, and sutures, and ligatures, and saws, and flaps, as though such details were the essentials, the guiding principles, instead of the mere tools or plans of the Surgeon: about the surroundings of the patient operated on, how little mental food will he gather! But in the history supplied by the Norwich Hospital respecting lithotomy, a fact is given him which is worth a hundred books, and a museum of instruments. It is a fact which, well understood, shows that a Liston himself will be an unsuccessful Surgeon, in comparison with other Surgeons, if his patients be placed in conditions which, however apparently good, are incompatible with restoration of tissue. There is that case in which a man of intemperate habits had a stone of fifteen ounces dragged out of his bladder after the median operation, and yet lived. Is it to be supposed for a moment that he would have lived in a crowded Hospital? There is the whole practice of a small and ventilated Hospital, exhibiting for ninety years a success almost unexampled. Let the student remember these things, and let me conclude for him the narration of those seventy successful cases of Mr. Stedman at Aden. Why were they so successful? For this reason: the patients were treated, virtually, in the *open air*.

RESPITE OF TOWNLEY.

(From a Correspondent.)

Victor George Townley, condemned to be hung for wilful murder, "has been respited during Her Majesty's pleasure on account of insanity." That is to say, on account of the alleged insanity of the criminal, the Home Secretary has set aside the verdict of the jury and the sentence of the judge. Your readers will very naturally expect that you will criticise, or at least set forth, the grounds on which this decision has been formed; but this no one can do, for the Solomon of the Home Office is above the weakness of giving reasons for his judgments. He announces a decision, *pure et simple*, and we, the public, have only to bow the head in silence, unless, indeed, we have the greater grace to utter forth our thankfulness that a Solomon *has* come to judgment, and to the rescue of a victim to the foolishness of trial by jury. Still, though I am precluded from considering this case in its purely Medical aspects, and in spite of the awe and wonder, if not precisely the reverence, excited in me by the autocrat of the Home Office Court of Criminal Appeal, I must venture to remark on some points in which the case of Townley touches all Englishmen in common.

There is no one, however convinced he may be of the expediency and the righteousness of capital punishment for wilful murder, who would not recoil from meting out such punishment to the criminal who is indisputably insane,—no matter whether insanity began before or after the commission of the crime. The mere fact, then, that Townley has been respited on account of insanity will not explain the excitement—I had almost said the alarm—it has caused. The reasons for this wide-spread feeling must be sought elsewhere, and they are not far to seek. Publicity of trial, and equality of rich and poor before every criminal tribunal, lie at the very root of an Englishman's ideas of law and justice; and in this case both these ideas have been outraged. Townley has been rejudged by a secret tribunal, moved to action by means beyond the reach of the poor. After public trial, he was found guilty of wilful murder by a jury of his "fellows;" the verdict was entirely concurred in by the judge, and he was sentenced to death. No one can doubt, that had he been a poor man he had been hopelessly left to his fate as a condemned murderer. But he is a man of position and education, and possesses relatives and friends sufficiently wealthy and influential to force the attention and sympathies of the Secretary of the Home Office, who sends men of his own choosing to examine the criminal in private, and on their report, which is kept secret, the criminal is judged insane and respited. It may be perfectly right and just that he should be respited. There is, as I said before, no means of questioning it; but if so, the mode in which justice has been obtained for him is the height of injustice to every poor friendless man who may have to pray for "a good deliverance" before the tribunals of his country. There has so often arisen occasion to point out the imperfections of our legal system in cases where scientific evidence is needed for the defence to a trial, that no one will regret that so glaring an instance of the inequality this need creates between man and man has occurred,—an instance which so forcibly and loudly proclaims, that the result is determined by private influence and depth of purse, not by the real merits of the case. In all trials where insanity is pleaded as a defence, the prisoner should be examined by public officers, whose report should be public; not by men appointed at the will, and selected at the pleasure of the Home Secretary for the time being, and whose report is kept secret. Till some such change in our system of justice is made, trial by jury is a farce, and our boasted equality of rich and poor is a cruel mockery and pretence.

REVIEWS.

The Quarterly Journal of Science. No. 1. January, 1864. London: Churchill and Sons. Pp. 212. Price 5*s*.

This new quarterly appears to us to be calculated both to form a medium of communication and *répertoire* of memoirs for purely scientific men, each in his special pursuit, and likewise to give the educated portion of the community a broad, general insight into the progress of the different branches of science. The combination of the purely scientific with the popular character is very happily carried out. The introduction gives a capital survey of the present relations of science to agriculture, to our manufacturing and mining interests, to geographical research, aerostation, photography and spectrum analysis, the acclimation of plants and animals, and to the higher branches of natural history, including anthropology, and to theology. It is really curious, however, to notice one slip which the very able editor has made. He justly deprecates any interference with "the free discussion of scientific topics on the ground that the views enunciated might give offence to the believers in some particular *theological* doctrine." Alas! substitute the word "political" for "theological," and we find him railing at the holders of certain scientific theories which run counter to his own politics as vehemently as the Pope himself might. Surely the question, whether or not the negro is a distinct species, and an inferior species, and, if a distinct species, a more ape-like one than the European, might be discussed on its own merits or demerits, without dragging in the American war, and adopting the insinuation of a country newspaper, that the men who held the affirmative were "tools of the Southern Confederacy." How can a man pretend to banish the *odium theologicum*, if he himself does not scruple to use a most malignant bit of political *odium* to damage the holder of a theory adverse to his own? Saving, however, this little escapade, the introductory survey is as temperate as it is interesting. Mr. Hull follows with a consolatory article on the Coal Resources of Great Britain, which he shows to be greater than Sir W. Armstrong would lead us to believe. Two articles on Oceanic Telegraphy come next; and these fairly make us blush at the mismanagement of the Atlantic cable. A paper on Earthquakes by Mr. Mallet is an intelligible introduction to the new science of Seismology. Dr. Gladstone gives a History of Lighthouse Illumination by magneto-electricity. Dr. Carpenter treats of the correlation of physical and vital force, showing that the organising power of the vegetable world is as fair an equiva-

lent of heat as motion is. Professor William King deals with the reputed Fossil Man of the Neanderthal, and makes him out no man, but an ape. An abundant chronicle of the existing state and progress of all the leading branches of science, including agriculture, astronomy, botany, etc., with reviews and news, completes the volume. We repeat that it is not an exclusively technical work, but one which every gentleman may read with interest.

Practical Treatise on the Diseases and Infirmities of Advanced Age. By DANIEL MACLACHLAN, M.D., Fellow of the Royal College of Physicians, late Physician and Principal Medical Officer to Chelsea Hospital. John Churchill and Sons. 8vo, pp. 718.

DR. MACLACHLAN, having been for more than twenty years Physician and Senior Medical officer to Chelsea Hospital, has enjoyed unusual opportunities of studying the diseases and infirmities of old age, and he gives us the results of his experience in the above volume. It is by far the fullest and most important treatise that has appeared on the subject in the English language. Valuable as are the various essays and articles on the diseases of old age, by Sir Henry Halford, Sir Henry Holland, and Drs. Roget, Symonds, and Copland, especially those by the last-named Physician, they treat of the subject in but a fragmentary and imperfect manner, and they lie scattered in several different works. The monographs of Sir Anthony Carlisle and Dr. Van-Oven are chiefly concerned with the modes of attaining and preserving a green old age; and the work of Dr. Day, "On the Domestic Management and most Important Diseases of Advanced Life," published in 1849, treats all its subjects very briefly, and altogether omits many important ones, and may, perhaps, be considered as intended more for the public than the Profession. On the Continent, the subject has been written on much more fully and adequately, and we have often wondered that neither Constatt's valuable work, "Die Krankheiten des Höheren Alters, und ihre Heilung," nor the pith of Durand-Fardel's "Traité Clinique et Pratique des Vieillards," have ever been reproduced in an English dress. Certainly, we are either wanting in the industry of our contemporaries the playwrights, or we are more easily satisfied with the worth and sufficiency of our home manufactures than they are. Any productions of equal relative value in their *métier* with the above-named works, would speedily have been "adapted" for the English market. Be the reasons what they may, however, up to this time English Medical literature has been without any standard work on the diseases of old age, and Dr. Maclachlan has ably supplied this want. In the first, or "Introductory," part of his work, he treats of the "Anatomy, Physiology, and Psychology of Advanced Life," the diseases incidental to it, the general principles of treatment, remedial and preventive, and of climacteric disease. At the very outset he has of course to meet the difficulty of fixing the age at which "advanced life," anatomically, physiologically, and psychologically considered, begins. We all know what we mean by an "aged man," but one man is as "aged" at 40 as another is at 60 or even 70; yet, for the purposes of scientific description and examination, we must divide life into fixed periods. The Chinese, our author informs us on the authority of Sir John Bowring, divide life into decennial periods, each distinguished by a special designation; thus, 20 is "youth expired;" 30, "strength and marriage;" 40, "officially apt;" 50, "error-knowing;" 60, "cycle-closing;" 70, "rare bird of age;" 80, "rusty-visaged;" 90, "delayed;" 100, "age's extremity." It sounds a sufficiently wise and shrewd, as well as poetically-named, system of division, but does not afford much help for our purpose. The Greeks regarded forty-nine as the turning-point of human strength and vigour. Flourens does not allow that decadence begins till seventy. Dr. Maclachlan, after noticing the various divisions of the later periods of life adopted by systematic writers and physiologists, observes—"In speaking of advanced life in the following pages, I wish to be understood as meaning a period commencing at fifty or fifty-five, which I propose extending to sixty or sixty-five. By mature or confirmed old age, I mean the period extending from sixty-five to seventy-five or eighty; and by decrepitude, or second infancy, the period onwards from eighty to the grave." It would be easy enough, of course, to quote plenty of living refutations of the exactness of this division, from my Lords Brougham and Palmerston downwards; still, we have no doubt it will be allowed as generally correct, and quite sufficiently so for its purpose. Having thus determined the limits at which the periods of life of which he means to treat begin, the author then gives sections on the changes, bodily and mental, to be observed in advanced life, and on the duration of human life, and the rarity of death from old age.

In the second chapter of this introductory part he gives sound and valuable warning and advice on the special difficulties of diagnosis, arising partly "from the complicated nature of disease at this period—several diseases of more or less importance, and of longer or shorter duration, frequently coexisting, and blending their respective symptoms or masking them. The gradual failure and modification of the different functions also vary the phenomena of disease. Thus, the declining irritability of the nervous system hinders the development of some local symptoms, and influences the character of the constitutional reaction, if it does not entirely prevent it. Those remarkable sympathies between distant or contiguous organs that interest the observer and aid the Practitioner in forming a correct diagnosis, cease altogether, or are much less constant and intense, particularly in extreme old age. Vomiting is less generally present in disease of the brain, liver, or kidneys, than in the adult; it is even often entirely absent in organic diseases of the stomach itself. . . . The kidneys are also frequently extensively diseased with little urinary distress; and the bladder, deprived of its former irritability, is sometimes distended to bursting without the usual agony. Nosology is at fault, and typical examples of disease are exceptional. Inflammation seems to paralyse sensation, and pain is often entirely wanting in many diseases which at other periods of life are accompanied with it in a high degree. Pleuritis, and still more frequently pericarditis, even when associated with that disease, again and again proceed to a fatal termination without it; and yet, on post-mortem examination, we find indubitable evidence of the inflammation having been of the most intense form. The isolation of the different organs in disease is one of the most remarkable phenomena in the pathology of advanced life, and the frequency of latent maladies of the most dangerous character ought never to be lost sight of. . . . On more than one occasion I have known old men sitting at the fireside or moving about, apparently in their usual health, with acute pneumonic consolidation, and even suppuration of the lung. . . . In another instance, occurring on the verge of sixty, empyema existed to such an extent as to displace the heart to the opposite side; and yet the man was following his vocation as groom and coachman, though the disease had existed several weeks. . . . These sufferers frequently die unexpectedly, and, as it were, accidentally, from rapid exhaustion, and their deaths appear in public returns as 'sudden,' or more commonly as caused by 'old age,'" whilst, in truth, death, "as purely and simply the result of old age, is amongst the rarest of deaths."

Chapter III. is devoted to the description and consideration of "Climacteric Disease," first described by Sir Henry Halford, and since treated of by many Physicians,—by none more fully and ably than by Dr. Henry Kennedy, of Dublin. Our author remarks:—"My own opinion is, that the disease is early met with as an idiopathic or distinct affection. Many years ago, imbued by the description given of it by Sir H. Halford, I imagined that I had met with it in numerous instances; but I soon found that, in those cases terminating fatally, and which I had set down in my own mind as climacteric decay or disease, death was the result of some latent affection of long standing, hidden from observation by the absence of its ordinary symptoms, the most frequent being tubercular disease of the lungs, organic disease of the liver, or cancer of one or more of the internal organs. . . . . I am satisfied that, until of late years, granular degeneration of the kidney, occurring in elderly people, without anasarca, must have frequently been put down as climacteric decay." Still, he allows that the disease does occur. "The best examples occur in our own trying, laborious, and anxious profession, in literary persons, clergymen, lawyers, and also in elderly spinsters who devote themselves to visiting the sick and poor." It is principally met with between the ages of fifty and sixty, though it may occur before or after that. "At this age men are busily engaged in the affairs of life, still struggling with its cares and anxieties, and exposed to disappointments and reverses which wound the feelings and lacerate the heart. Later, in the succeeding decennial periods, they have either reached the summit of their hopes and ambition, or they have failed in their aspirations and fallen behind in the race, and now calmly resign themselves to their fate." Dr. Maclachlan's remarks on the causes, duration, and treatment of the affec-

tion are sound and practical. In the succeeding parts of the book he treats of the diseases of the nervous system, of the respiratory organs, of the organs of circulation, of the digestive, the biliary, and the urinary organs, of the skin and its diseases, and of constitutional or blood diseases. Each part is prefaced with a description of the anatomical characteristics of the organs in old age; and then the most frequent and important diseases are treated of under the heads of history, causes, diagnosis, prognosis, anatomical appearances, and treatment. Dr. Maclachlan handles all these topics with ability and learning, showing that he is a close and judicious observer at the bedside, as well as a careful student of all writings, foreign as well as English, that bear on the subject he deals with.

We had marked out many parts for quotation, but our space will only allow us further to strongly recommend the work to our readers. We will not say that "it is a work which ought to be in every (Medical) gentleman's library," because, to our mind, that phrase indicates rather a book to be looked at than one to be looked into; and we are sure that this will be found very valuable for consultation and reference. It is, we repeat, a valuable addition to Medical literature. We will only add that it is provided with a table of contents and a good index, and that as to paper and print it is worthy of the publisher.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

December 21, 1863.

Since my last letter appeared in your columns there has been no very marked change in the general health of the town. The number of deaths from fever continues to be above the average, and we have only the negative satisfaction of knowing that we are not so badly off in this respect as we were this time last year. The workhouse continues very full, both with sick and healthy paupers, but their number is no accurate gauge of the condition of the poor of this town, inasmuch as many of them come, especially into the Hospital wards, from distant places. As far as I know, there is not now any more distress than that which always haunts such a population as ours.

It is somewhat singular that I should this month have to record another death from hydrophobia. The case was that of a boy, who was bitten above the eye by a dog. He had imprudently interposed on behalf of a small dog who was being worried by a larger one, and thus became himself the next object of attack. Nothing was thought of the injury at the time, the amount of laceration of the skin being very slight; but, about five weeks afterwards, he complained first of a "queer" feeling in the side of the head on which he had been bitten; then of a burning pain in the same part; and then the usual laryngeal symptoms, impossibility of swallowing, harsh cough, etc., came on. He was attended by Dr. Rice and Dr. Brabazon, of the South Dispensary, but all means proved unavailing to avert the fatal issue of the case.

The proceedings of the Medical Society have recently included much interesting matter. At the meeting of November 12, a paper was read by Mr. Lowndes on "the diet suitable after childbirth." He was inclined to believe that the tendency of recent writers upon this subject was towards the severe regimen of olden times, and that such a retrogression was most undesirable. He usually gave a little wine or beer immediately after delivery. Then, for the succeeding twenty-four hours, he kept his patient without animal food, allowing tea, toast, and gruel; the next day, a breakfast-cupful of strong broth for dinner; on the third day, a little chop or chicken; and after this period he permitted the patient to return to her usual diet, and take a little wine or ale. He found that with this treatment patients suffered far less from those affections of the breast and nipple, where the pain is out of all proportion to the actual lesion, and less also from those muscular pains so often complained of when the patient begins to sit up. On November 26, Dr. Nottingham showed a large "cauliflower excrescence of the uterus" removed from a patient aged 38. It appeared to have commenced about eighteen months before the operation, and had gained such a size that it filled the vagina. By means of blunt hooks the uterus was brought slowly and completely down, so that the chain of a curved ecraseur could be passed around the cervix above the disease. The division was accomplished in a quarter of an hour, without the loss of any blood; though there was some bleeding half an hour afterwards. The further progress of the case I am not yet able to give.

At the same meeting, Dr. Imlach read a case of disease of the supra-renal capsules, characterised by the bronzed skin, constantly increasing anæmia and dyspeptic symptoms, such as acid vomiting, &c. She had taken pepsin with great advantage. In this case there were a number of little black pimples, apparently outgrowths from the epidermis.

Dr. Vose referred to a case which had been under his own treatment, in which the variegated colour described by Dr. Addison existed, along with the constitutional symptoms usually allied with disease of the capsules, and yet no morbid change was found in these bodies.

Dr. Cameron mentioned a case of phthisis, unaccompanied by any peculiar tint of skin, in which tubercle was found in both capsules.

A case of internal uterine hæmorrhage, presenting some important points, was read by Dr. Whittle. The patient, aged 35, had had five children, the last five years since. She was of a hæmorrhagic diathesis. On September 21, she complained of slight pains all day, and when sitting at tea she was seized with great abdominal pain, and fainted away. Dr. Whittle found her collapsed, pale, covered with cold sweat, and her pulse just perceptibly beating about fifty per minute.

The abdomen was tense and hard; no uterine action, but soreness over the region of the bladder. The os was about the size of a crown piece, the membranes ruptured, and the head presenting. Tinct. opii, ♏ xx., were given at once, and brandy from time to time. She rallied satisfactorily; at ten p.m. the pulse was 84; but by two o'clock the next morning it was evident that the uterine efforts were insufficient; the pulse had risen to 120, and the woman was getting low. The child (a very large one, which had been dead some time) was delivered with the forceps, and was followed by a clot very like, in size and shape, to the liver, and which Dr. Whittle thought would represent about four pints of blood. The placenta came away without any trouble, and there was no further bleeding. The patient recovered after a tedious convalescence.

At the meeting of December 10, several specimens of more than ordinary interest were shown. Two cases of fracture of the spine were presented by Dr. Nottingham. In the first, the fracture had occurred in the lower portion of the back, and there was separation of the posterior fragments, whereas in the second there was just the reverse. This latter specimen was from the body of a strong man, who fell thirty feet, and alighted on the top of his head. There was found a long scalp wound, no fracture of the skull; his faculties were entire, his pupils contracted, and his sight not much interfered with. There was some difficulty of breathing and paralysis of the bladder, but not of the legs. He was found to have sustained a fracture of the spine about the fourth dorsal vertebra, and a fracture of the sternum about the same level. There was great separation of the anterior parts of the spine at the site of fracture, and a transverse process was broken off, but there was little visible injury to the cord itself.

Dr. Nottingham's third case was still more remarkable. It was that of a boy who fell from a pile of timber, injuring his head, fracturing a thigh, causing a fracture into one elbow joint, and a wound in the perineum as large as that made in lithotomy. Some severe head symptoms, which he had at first, passed off, and he went on quite well, complaining only of indigestion, until rather more than two months after the accident, when he was seized with symptoms of perforation of the stomach, and died in about half an hour. A post-mortem examination showed that the stomach, very much dilated, has passed into the left pleural cavity, and had ruptured; so that the cavity was filled with a mixture of meat and potatoes. The left lung was flattened, and the heart of course compressed. The edge of the aperture in the diaphragm was so smooth as to suggest the idea of there having been some congenital deficiency, rather than that of the diaphragm having been torn at the time of the accident. The edge of the aperture in the stomach was rough and vascular. The extreme rapidity of his death was not extraordinary, considering the way in which the left lung and heart were interfered with.

Mr. Higginson showed a portion of the skull of a man who had fallen from the rigging of a ship. He was found to have sustained a large scalp-wound, and depression of a portion of the skull was distinctly felt. When the flaps of skin were

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turned back, there was seen to be a hole in the skull, looking just as if the man had previously been trephined. Around this there were several fractures. A small circle of bone was removed by the trephine; but the patient, who was of intemperate habits, unfortunately was attacked with inflammation of the membrane of the brain, and died. In the portion of the skull shown to the Society, there were, besides the hole just mentioned, two other perforations of the skull, apparently due, either to non-development, or to absorption of the bone over some of the Pacchionian bodies. Two other parts were so thin as to be diaphanous. Another pathological specimen, of quite a different order, was shown by Dr. Rawdon, House Surgeon to the Royal Infirmary—a soft calculus from a child's bladder. The patient had prolapsus ani, and pain before micturition, but not after; and there was pus in the urine. The child had been sounded four times before the operation; twice some indications of the presence of a stone were obtained, and twice nothing could be felt. The stone was removed; but the child sunk, its death being ascribable, at least in part, to the diseased condition of the kidneys. The stone was about the shape and size of an olive, its central, solid, calcareous portion being surrounded by a thick, soft coating, composed of a series of concentric layers. I remember seeing, some years since, a stone, removed by Mr. Bickersteth, of much larger size than this, but invested, in like manner, with a thick coating of soft material, composed, probably, of the tenacious material of the vesical mucus with some of the salts of the urine, which also caused some difficulty in obtaining certain proof of the presence of the stone.

Among miscellaneous matters I may mention a case which recently came under my notice, which illustrates the practice sometimes pursued by the "herbalists," with whom, I think, we are more infested in the north than you are further south. One of these worthies had, it seemed, been in regular attendance on a young gentleman who suffered from constant cough, increasing weakness, and loss of flesh. His treatment mainly consisted in the administration of frequent emetics, warm "packs" to the chest to encourage perspiration, and exhortations to the parents to get the patient up. Of course, a favourable result was confidently predicted. On Medical advice being at last sought, it was found that the poor lad was in the last stage of phthisis.

It is difficult to know which is the wiser course, in cases thus maltreated, whether to pass them unnoticed, or, where any legal proceedings are possible, to run the risk of converting the quack into what the public may consider a victim to Professional jealousy, and a martyr in the cause of the "Medical liberty of the subject."

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

DECEMBER 15, 1863.

Mr. PRESCOTT HEWETT in the Chair.

MR. PARTRIDGE brought forward a man, the subject of

MALFORMATION OF THE GENITALS.

The individual had been christened Thomas, but doubts had been raised as to his sex. There was, however, no doubt that he was a male. The penis was small, but it was too large for a clitoris. It was grooved, and at its base was an opening which led into the bladder. He had had erections, and had made futile attempts at intercourse.

Mr. SIBLEY showed a specimen of

RUPTURE OF THE AORTA.

The patient, a man fifty-two years of age, was considered to be in good health until the day of his death. He went out to wait at dinner, and complained of flatulence, for which brandy was given. Soon afterwards he died suddenly. The transverse part of the aorta was ruptured, and blood had escaped external to the pericardium. The aorta was dilated, but not diseased. There was an appearance in the left carotid as if a dissecting aneurism were forming, and this had no apparent connexion with the disease of the aorta, as the intervening parts were quite sound.

Dr. BROADBENT showed a specimen of

HÆMORRHAGE INTO ONE HEMISPHERE OF THE CEREBELLUM.

A girl, sixteen years of age, was found leaning against a wall, and complaining of being sick. She was brought to the Hospital, and was then unconscious, although she could move her limbs, and died an hour later. At the autopsy a large clot was found in one of the hemispheres of the cerebellum. Dr. Broadbent also exhibited the uterus. There was extravasation of blood on the external surface of the uterus, but not on the internal. Dr. Broadbent referred to a specimen of hæmorrhage in the cerebellum which he had exhibited in a former session.

Mr. COOPER FORSTER brought forward a specimen showing an

APPENDIX EPIPLOICA IN THE SAC OF A HERNIA.

It looked so like a testis, that at first glance it might have misled an operator, but an examination readily detected its real nature.

Mr. COOPER FORSTER also alluded to the practice of leaving cases of strangulated hernia too long before they were sent to the Hospital for operation.

Mr. SOLLY said not only was the operation thus delayed, but the parts were often very much bruised by manipulation before they came under the notice of the operator.

Mr. CALLENDER exhibited parts removed by amputation ten months after

EXCISION OF THE ELBOW-JOINT.

The patient was twenty years of age. Twelve months ago, the elbow-joint was excised at a large Provincial Hospital for strumous disease. Seven months later, the arm was cold, shrivelled, and useless, and there was loss of sensation in the region supplied by the ulnar nerve. All the fingers were useless, the thumb being the only part of the hand in which power of motion remained. Mr. Callender thought that there ought to be a clearer understanding among Surgeons as to the time when passive movement should be begun. He thought that the joint should be kept at rest, and that, when the swelling had subsided, a splint should be kept on.

Mr. HOLMES thought that movement was generally not commenced soon enough; and in this opinion Mr. Hulke coincided.

Mr. WOOD thought that too early movement would prevent union of the ulnar nerve, which he believed was divided oftener than was supposed. He had known it divided, but a perfect union of the nerve occurred.

The PRESIDENT said that, in Mr. Callender's case, the division of the ulnar nerve would not account for the paralysis of the whole hand, as this nerve supplied two muscles only.

Dr. GIBB showed a diagram of the larynx in a case of

FUNCTIONAL APHONIA, OF TEN YEARS' DURATION,

occurring in a married lady, aged fifty-two, arising gradually, in the first instance, from emotional causes. She had undergone various plans of treatment, without any result, except on one occasion, for about three weeks in the early part of 1862, when a harsh, rough, masculine sound appeared, and then went away. This was about eighteen months before Dr. Gibb saw her. He found paralysis of the vocal cords present, with complete immobility, both cords running perfectly parallel for the greater part of their length, and then meeting at their point of origin. This parallelism and the form of the glottis were accurately represented in the diagram from a sketch made at the time of examination. The width of the glottis was about two lines, and respiration was performed without in any way altering it. As almost every thing had been tried in vain, including galvanism to the cords, reliance was placed chiefly upon showers of powdered nitrate of silver to the larynx, with the best results; for the natural voice returned in good power and compass in the course of a few days, and has continued after a ten years' absence.

Dr. WILKS showed a specimen of

FIBROUS TUMOUR ATTACHED TO THE KIDNEY.

He brought the specimen to the Society as an example of a fact which he thought was scarcely sufficiently recognised, that the internal organs of the body are liable to the same class of affections as are described as new growths or tumours when occurring on the exterior of the body. He said that the Surgeon had discriminated between various forms of external tumours, as regarded their structure or malignancy, and he thought that the same could be done with respect to the affections of internal organs. For instance, many of the diseases of the stomach, formerly called cancerous or fungoid, consisted of various kinds of growth as described by the Surgeon as fibrous, recurrent fibroid, etc. So also the so-called intra-thoracic cancer often consists of growths which, on the external part of the body, would be styled the firmer and softer varieties of recurrent fibroid; and the same might

be said of the kidney, uterus, ovaries, and other structures of the body.

Dr. WILKS also showed

PLASTIC LYMPH LINING THE LATERAL VENTRICLE OF THE BRAIN.

A man, aged forty, was admitted into Guy's Hospital, under Mr. Birkett, for fracture of the skull and injury to the brain, which he survived a fortnight. The orbital plate was comminuted, and the dura mater torn. At the anterior lobe there was an abscess, and this was closely contiguous to the cornu of the ventricle. On opening the latter it was found to be lined by a tough layer of lymph, which formed a complete cast of the cavity. The roof, floor, and descending cornu were covered, and thus a hollow sac or cast of the ventricle was constituted. It resembled a croupous membrane, as seen in an inflamed trachea, and could be moved entire. It contained some purulent matter. Dr. Wilks said that he had never met with a similar case before in which the ventricle had poured out a plastic lymph of this kind.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 2, 1863.

Dr. OLDHAM, President.

THE following gentlemen were elected Fellows:—Drs. Davis, Savage, and Swyer; Messrs. Bryant, Chisholm, Griffiths, Morgan, and Sequiera.

Dr. Gervis and Mr. Ray were appointed auditors.

Dr. BARNES exhibited and described a new

CRANIOTOMY FORCEPS.

It combined the advantages of the instruments of Professors Simpson and Murphy, and by a further contrivance added by Dr. Barnes was rendered much more effective than any other instrument with which he was acquainted. The elbow on the inner blade, allowing free room for any fold of scalp at the point of perforation, permitted the duck-bill-toothed portions of the blades to be pushed high up to secure a firm hold of the cranium, without the danger of straining the lock. By this means the blades were always kept in perfect parallelism, ensuring a widely-diffused grasp of the cranium, and avoiding the risk of tearing away. Having properly seized the cranium, it became a point of great importance to secure the hold in a manner to save the operator the fatigue and muscular strain of pressing the handles together, whilst at the same time considerable extracting power is required. For this purpose he had adapted a powerful screw, which united the extremities of the handles, setting the blades fast at any interval required. Another advantage provided for was the fitting the blades with a modification of the French forceps-lock, so that the instrument could either be used as one piece, or the two blades could be applied separately. The entire length of the instrument was fifteen inches. Dr. Barnes said he had used the instrument several times, and that its grasp and action were so perfect that he had never been obliged to take a fresh hold. It was made by Weiss.

Mr. BAKER BROWN read a case of

OVARIAN DROPSY,

which had three years and a-half ago been treated by him with tapping and pressure, with apparent recovery for three years and a-half. The cyst, however, began at the end of that date to enlarge, and the patient, being in good health, was recommended by Mr. Brown to submit to ovariotomy, which was performed by him at the London Surgical Home in the usual way, with a very small incision. The cyst was nearly unilocular, but was not of the ovary, which was healthy and free, but in the broad ligament; the pedicle was broad. She recovered without a bad symptom, and is now well. Mr. Brown considered the case of especial interest just now, proving that no adhesions were produced by the previous tapping and pressure.

The report of the committee (Dr. Tyler Smith and Dr. Braxton Hicks) appointed to examine a specimen of Extra-Uterine Fœtation, in which two fœtuses were found in connexion with the same Fallopian tube, was read. They considered that the smaller fœtus was the result of a former conception, and was attached to the fimbriated portion of Fallopian tube in such a manner as not to impede a subsequent conception, which also remained extra-uterine about the middle of the tube, from the bursting of which the patient had died.

Dr. J. BRAXTON HICKS read a short appendix to his paper on

COMBINED EXTERNAL AND INTERNAL VERSION,

in which he stated that, in consequence of not having seen Wigand's memoir, he was unable at the last meeting to reply to the statement made by Dr. Barnes, that he had *fully* described internal and external version. Since that time he (Dr. Hicks) had been able to go over the work, and took exception to the above statement as far as regards internal version. In comparing this memoir with his own paper, he pointed out that, although in regard to cephalic version, there was much similarity in the two plans, still that Wigand had no knowledge of the pushing on the child from within, in the direction of its head, so as to produce podalic version; that he had never adopted complete podalic version, and he makes no mention of the way to convert a more or less cephalic version into podalic. Wigand's plan was to bring that part to present which was nearest the orifice of the uterus. Therefore he applied it only to the rectification of *abnormal* presentations. Consequently, on comparing the two methods, it would readily be seen that very many of the conditions to which Dr. Hicks applied his plan were contra-indicated in the other as mentioned by Wigand himself. It was shown that the only use he makes of the internal hand is to first determine the presentation, and to receive the part as it is pressed down from above, and guide it to the os uteri. Dr. Hicks again pointed out that it was by combining the two powers, within and without, that made the plan he had brought forward much more complete and available than either employed separately.

Dr. GERVIS exhibited the body of a child, in whose birth, after the passage of the head, extreme difficulty was experienced in completing the delivery, owing to a great enlargement of the abdomen. It was, however, accomplished by simple traction. On dissection, this enlargement was found to be due to an enormously distended uterus, presenting two distinct cornua, and with an imperfect septum dividing its cavity. It was filled with a turbid serum containing white flocculi. The os uteri was impervious. There was no indication of an anus, and the rectum terminated in a cul-de-sac attached to the posterior part of the uterus.

The PRESIDENT remarked that it was a most interesting specimen, and suggested that Dr. Gervis should, jointly with Dr. Hicks, furnish a further report upon it.

Dr. J. BRAXTON HICKS read three cases of

ABNORMAL CONDITION OF FŒTUS

which had caused impediment to labour. One in which there was found three quarts of ascitic fluid, in combination with cystic enlargement of the pelves of both kidneys, in consequence of occlusion of the ureters. Another, in which the abdomen of a female fœtus was distended by the bladder, which reached to the ribs, and which was full of fluid. No obstruction existed in the urethra. Both were delivered readily after puncture by the crotchet. In the third there was dropsy of the amnion to an enormous extent, coupled with a very peculiar enlargement of the forepart of the neck of the fœtus, which had to be ruptured before labour could be completed. It was partly filled with serous fluid. The mothers in all the cases recovered.

Dr. GRAILY HEWITT remarked, that the occurrence of cases such as those brought before the Society by Dr. Hicks favoured the idea, that normally a secretion and excretion of urine from the fœtus was going on during intra-uterine life. He alluded to cases recorded by Mauriceau and Depaul similar to Dr. Hicks' case.

Dr. Hicks was invited to report further on the tumour, conjointly with Dr. Gervis.

Dr. LUMLEY EARLE (Obstetric Surgeon to the Queen's Hospital, Birmingham) read a paper

ON DISTENSION OF THE BLADDER CONSIDERED AS A CAUSE OF POST-PARTUM HÆMORRHAGE.

The author pointed out this condition as one of the many causes of post-partum hæmorrhage; and called attention to the propinquity of the bladder to the lower portion of the uterus, so that when the former was distended the latter was not only displaced, but prevented from contracting completely. He pointed out the usual symptoms which would lead to the discovery of the accumulation of urine; and gave three cases in illustration that the removal of urine caused the subsidence of the flooding.

Mr. RICHARD MARLEY read a paper

ON PERTUSSIS: ITS PRACTICAL TREATMENT AND MORE RAPID CURE.

After alluding to the history and symptomatology of this com-

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plaint, the author analysed the various modes of treatment. He laid stress upon the value, in the second stage, of conium, belladonna, and hydrocyanic acid taken internally; and also the careful inhalation of chloroform at the commencement of the attack, whereby the fit was invariably mitigated or stopped. Although he had by the use of the above treatment been led to think very favourably of it, yet he did not urge it to the exclusion of all others. As in all other diseases, the treatment must be modified by the special features of each case. He advocated warmth during the first stage, and change of air in the third.

Dr. DAY thought it was scarcely safe to leave chloroform in the hands of nurses. He considered that the disease should be treated on general principles. Bromide of ammonium had been latterly much recommended, but in the few cases in which he had tried it he had not found it to possess much influence on the disease.

Dr. HOLT DUNN thought that the treatment in whooping-cough was uncertain, and that we should hail with pleasure any plan which gave more satisfactory results. He had tried the last-named drug, and thought he had found more success with it than with any other.

Dr. GRAILY HEWITT had some years ago examined carefully into the causes of death from whooping-cough. In the cases he had examined, which were for the most part children badly fed, ill-nourished, and in other respects diseased, death had occurred from collapse of the lung—a condition formerly described as lobular pneumonia. It was useless to attempt to treat such cases by specifics. In all cases of whooping-cough he had found the greatest benefit from a treatment mainly consisting of hygiene—good food, exercise, warmth, ventilation, etc. Antispasmodics and sedatives were frequently required, and were not seldom of great use; but the primary object of the treatment should be to maintain the general health of the child.

MEDICAL NEWS.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

CLARKE, WILLIAM FAIRLIE, M.A. Oxon, F.R.C.S., has been elected Junior Surgeon to the West London Hospital.

ILIFFE, FRANK, M.R.C.S. Eng., has been appointed House-Surgeon to the Coventry and Warwickshire Hospital.

MAHOOD, GEORGE, M.D. Glasg., has been elected Medical Officer of the Workhouse and Fever Hospital of the Enniskillen Union.

MAUDE, FREDERICK W., M.R.C.S. Eng., has been appointed Resident Surgeon to the Royal Sea-bathing Infirmary, Margate.

PARKER, THEOPHILUS, M.D., to H.M. Coast-guard Station, Burton, Bridport, Dorset.

TULLOCH, J. STEWART, M.D. Edin., has been elected one of the Assistant-Surgeons to the London Surgical Home for Diseases of Women.

DEATHS.

BADGLEY, FRANCIS, M.D. Edin., at Holyrood House, Great Malvern, on December 24, aged 56.

BEETSON, GEORGE, at Auckland-villa, Southsea, on January 2, late Superintending Surgeon Madras Army.

BULMAN, DARNELL, M.D. Edin., at Newcastle-on-Tyne, on December 24, aged 68.

DAVIS, JOHN FORD, M.D., at 13, Royal-crescent, Bath, on January 1, aged 91.

DERBISHIRE, JOHN, Surgeon, at 58, Upper Marylebone-street, Portland-place, on December 31, aged 72.

HUTSON, JOHN R. F., M.D., at Demerara, on October 13, aged 67.

JONES, THOMAS, F.R.C.S. Eng., at Chesterfield, on December 18, aged 46.

LEWIS, DAVID, M.D., at Ryde, Isle of Wight, on December 28, aged 65.

SINCLAIR, ALEXANDER, M.D., Staff-Surgeon, at Southsea, Hants, on December 26.

SLEIGH, WILLIAM W., M.D., at Brixton, on December 30, aged 67.

STATTER, RICHARD D., M.R.C.S. Eng., at Mount Pleasant, Liverpool, on December 28, aged 38.

WARD, FRANCIS, M.R.C.S. Eng., at 4, Angel-terrace, Stockwell, S., on December 31, aged 57, late of Balham-hill.

PROPRIETARY MEDICINES.—At a recent meeting of the owners of proprietary medicines, held at Anderton's Hotel, for the purpose of adopting measures for opposing, in the ensuing session of Parliament, the insertion of clause 57 in the Medical Act, Mr. Barclay, who occupied the chair, stated, that if the General Council of Medical Education succeeded in engrafting upon their present Act the contemplated clause, its effect would be to render valueless some two millions of invested property, now regarded as a sort of copyright, and which, in fact, was the sole maintenance of some thousands of persons. A committee was appointed, armed with the necessary powers for resisting the passing of the proposed Bill, and nearly £3000 was subscribed towards raising a fund for defraying the expenses.

THE RESPITE OF TOWNLEY.—It has been publicly stated that Sir George Grey, in sending a commission to inquire into Townley's state of mind, acted under the 3rd and 4th Vic., chapter 54, which provides that *any* person, even if under sentence of death, may, if shown to be insane by the certificate of the magistrates and two Medical men, be removed to a lunatic asylum. Sir George Grey, therefore, had no choice in the matter. The real grievance is, that a similar commission is not issued in every case, rich or poor. The Derbyshire county magistrates have memorialised the Home Secretary on the subject of Townley's respite, which they consider to be an infraction of justice.

COLLEGIATE ELECTIONS.—The Council of the Royal College of Surgeons of England will assemble on Thursday next, when the death of their late universally-esteemed colleague, Mr. Joseph Henry Green, will be officially announced, and an early day, probably the following Thursday, fixed for the election of his successor as an Examiner. With the exception of the memorable contest between Mr. Kiernan and Mr. Partridge, perhaps few collegiate elections have created so much sensation in the College and amongst the Profession generally as the present; for a rumour has been some time floating about Guy's and King's College Hospitals that the Council in whom the election rests are about to imitate the example adopted some time since by the Fellows, and break through or cut the red-tape of seniority. From the published list it would appear that Mr. Gulliver is the senior candidate, who will be opposed by Mr. Partridge, and the latter also will meet with an antagonist in Mr. Hilton. Perhaps neither of the candidates are more deservedly popular than Professor Gulliver, who, as a Fellow of the Royal Society, and of other learned and scientific institutions, has contributed largely to the advancement of anatomical, physiological, and zoological science; his researches having been, for the most part, prosecuted, not when surrounded by the pleasant facilities and encouragements of this great metropolis, but amid the inconveniences and distractions of a military life, and without a sacrifice of any of his regimental duties. For many years he had charge of the Surgical division of the General Hospital at Fort Pitt, Chatham, and for more than twenty years afterwards was not without charge of some military Hospital. Professor Partridge, who is also a Fellow of the Royal Society, President of the Royal Medical and Chirurgical Society, and Surgeon to King's College Hospital, has been for many years a teacher of Anatomy, and of this branch of the Profession he is the Professor at the Royal Academy, having succeeded Professor Green. Professor Hilton, F.R.S., is Surgeon to Guy's Hospital, and well known by his admirable and philosophical course of lectures on the Influence of Rest in the Treatment of Surgical Diseases, and is, moreover, one of the Examiners at the University of London, an appointment which he will have to resign on becoming an Examiner at the College of Surgeons. It is stated that Mr. South will be Mr. Green's successor at the Dental Board.

AUTHORITY OF MEDICAL SUBORDINATES.—An opinion has lately been given by the Judge Advocate General of the Bombay Army, which may be interesting to those connected with the Army Medical Department. It appears that, at Nusseerabad, Apothecary Lawrence, a warrant officer, ordered a sergeant into arrest in a matter arising out of Hospital discipline, when the sergeant refused to obey. The following is the legal opinion on the case:—"It would appear that Sergeant Piggins was attached to the Hospital, and that it was in a matter connected with the discipline of the Hospital that he was ordered into arrest by Apothecary Lawrence, who, being a warrant officer, was not only superior in rank to Sergeant Piggins, but clearly his superior officer in matters connected with the discipline of the Hospital, and therefore, in my opinion, a lawful authority when he ordered the sergeant under arrest." And it is gratifying to add, that the Judge Advocate-General of the British Army, in his reply, states that he fully concurs in thinking that any apothecary or Hospital steward in the Indian forces may lawfully order a

Hospital sergeant into arrest for an offence directly connected with Hospital duties.

GENERAL PRACTITIONERS IN INDIA.—Mr. John C. Harper, a Surgeon practising in Moulmain, having lodged a complaint against Apothecary S. Sausman, of the General Hospital, for indulging in private practice to the injury of the former, the court dismissed the complaint in the following terms:—"With regard to the competition complained of by petitioner, the court believes that the Government, either in this country or in England, have no objection to their servants in the Medical department having private practice as long as it does not interfere in any way with their public duties, or that the knowledge they possess should not be made available for the benefit of the community as well as the personal advantage of their servants themselves; they further consider that the community of Moulmain can be very safely left to make their own selection of Medical advisers, whether such may be in the Government service or not, without any interference from the court."

A MODERN ADONIS.—A poor fellow named Seeds, a cowman, in the employ of Mr. Howard, of Greystoke Castle, has recently met with his death in a manner that recalls one of the most famous stories of old time. He was not hunting a wild boar, but attempting to drive one of the domestic breed, and struck it with a stick, when the animal suddenly turned, reared itself on its hind legs, and gored the poor fellow in the thigh with its tusks.

. . . Μηρὸν ὀδόντι
Λευκῷ λευκὸν ὀδόντι τυπεὶς, . . .

The poor fellow called out for help, and Cytherea, in the earthly guise of a dairymaid, came unavailingly to his help. She heard the poor fellow call out—"I 'm dying," and saw blood gushing from his leg.

Τὸ δὲ οἱ μέλαν ἔιβετο αἷμα
Χιονέας κατὰ σαρκός· ὑπ' ὀφρύσι δ' ὄμματα ϝαρκεῖ,
Καὶ τὸ μέσον φεύγει τῶ χέιλεος· . . .

Ere he had gone a dozen paces, he fell down and died. A post-mortem showed that the femoral artery had been severed by the boar's tusk. We are sorry that the prevalent knowledge of common things does not include the mode of checking hæmorrhage by putting the finger into the wound so as to check the issue of blood from the artery.

FRENCH AND ENGLISH IDEAS OF A NAVAL SANITARY COMMISSION.—A correspondent of the *Times*, referring to the present defective ventilation of ships of war, writes:—"To illustrate how differently things are done in France, the French Admiralty, having found it necessary to reorganise the sanitary department of the navy, have just created a commission, composed of Admiral Jurien de la Gravière, one commissary, and six Medical officers. When our Admiralty, about three years ago, in order to satisfy the public that something was being done towards endeavouring to improve the ventilation of our ships, peculiarly a question which scientific Medical men, conversant with all the details of their internal arrangements and requirements, are most fitted to decide on, yet their lordships appointed a commission composed of one captain, one engineer, and a shipwright. Something is urgently required to be done in our new iron and iron-clad ships. I agree with 'Observer' that a fearful amount of preventable disease and deterioration of the health of seamen is now due to defective ventilation and other insanitary arrangements. We have no ship afloat properly and scientifically ventilated."

THE CINCHONA PLANT IN JAMAICA.—The annual report of the island botanist, presented to the Jamaica House of Assembly, contains some interesting information relative to the experiment of cultivating the cinchona plant in that island. In the autumn of 1860 a quantity of the seeds of this valuable plant was received, and by the month of October of the following year the island botanist had succeeded in rearing over 400 healthy plants, quite ready for planting out. This was in the low lands, where the climate proved too warm for the cinchona, and one half of the plants perished. Subsequently they were removed to the mountain region, at an elevation of about 4000 feet above the level of the sea, and placed under artificial treatment, with the happiest results. "In 12 months after, a plant of the red bark (*Cinchona succirubra*) had attained to the height of 44 inches, with leaves measuring 13½ inches long, by 8¾ inches broad. The same plant, now two years old, measures six feet in height, with ten branches, having a circumference of stem at base of 4½ inches. The *Cinchona micrantha* (grey barks), being of more slender habit of growth, have not made so rapid progress; the highest has attained to five feet, with three branches. The leaves, however, are larger, and measure 14 inches by 10 inches." Thus far the experiment had proved eminently successful, and, if only properly followed up, will, no doubt, lead to important results for the island, where there is an abundance of land possessing all the conditions favourable to the growth of the cinchona.—*West India Letter Times*, December 31, 1863.

THE GLASGOW ROYAL INFIRMARY.—At the last meeting of the governors of this institution, a question arose as to the propriety of adding to this already gigantic Hospital. The late prevalence of small-pox has turned the attention of the authorities to the necessity of providing separate accommodation for variolous patients, and from this the present proposal for the further extension of the Hospital has arisen. The report submitted to the governors referred to the subject as follows:—"It may be necessary during this year to extend the accommodation, and the managers request the requisite powers from this court to enable them to do so. This measure is almost forced upon the managers by the great desirability of treating small-pox patients, on account of the highly contagious nature of the disease, in a building apart. This separation is strongly recommended to the managers by their Medical officers, and experience has shown the managers that it is desirable to relieve the fever-house of the small-pox patients, in order to leave more room for the fever cases themselves. A motion will therefore be submitted to the meeting, authorising the managers to lay out the necessary expenditure to accomplish the object in view." The proposal to extend Hospital accommodation in the part of the town occupied by the Infirmary was opposed by Dr. Fleming and other speakers, on the ground that, were the Hospital, which now numbers 650 beds, enlarged, it would become unmanageable, and also because its site is not within easy reach of large portions of the town which have sprung up since it was chosen. The original proposition to extend the accommodation by raising additional buildings in the immediate vicinity of the Infirmary was carried, on a division, by the casting vote of the chairman. This balance of opinion shows, at least, that there is much to be urged against the original proposition. It seems more reasonable that such a city as Glasgow should possess several moderate-sized Hospitals, placed in different districts, than one huge one at a distance of three or four miles from its outskirts.

BOOKS RECEIVED.

Thirty-sixth Annual Report by the Directors of James Murray's Royal Asylum for Lunatics, near Perth. June, 1863.

*** The most minute and elaborate work of its class which has come under our notice. The body of the document consists of 74 pages, and an appendix of 31 gives statistical information in tabular form. Among the many topics enumerated in a contents of five pages long, we may mention the preference expressed for the "modern plan of securing the services of scientific experts in cases of difficulty, over the old system of fixed and salaried Consulting Physicians or Surgeons." It is stated to be more economical and satisfactory. The subject of diet is considered at much length, and excellent comparative tables are furnished of poorhouse, prison, and asylum dietaries. The principal bulk of the report is composed of these valuable inquiries. In the Appendix is a good obituary table, showing symptoms and autopsy in parallel columns. To this are added others of industrial occupations among the patients, and the diet-tables to which allusion has been made.

Excelsior: the Literary Gazette of the Inmates of Murray's Royal Institution for the Insane, Perth. Nos. 16 and 17. 1863.

*** This publication forms an appropriate pendant to the able Report above noticed. It is stated to be occasional and irregular in its issue, and its profits devoted to multiply the means of instructing and amusing the inmates of the asylum. A list is given in the present number of the newspapers and serials circulated among them; and a chronicle of drives, concerts, lectures, microscopic demonstrations, picnics, and balls, show how actively this desirable object is carried out.

Requirements for the Proper Study of Medicine; being the Introductory Address delivered at the opening of the Medical School. By Dr. J. Warburton Begbie. Edinburgh: Oliver and Boyd. 1863.

*** A scholarly and thoughtful essay, such as might be expected from its able author. It takes for its text one of the same grand works of antiquity which furnished this Journal with the remarks to students in the Students' Number for the current year—the "Nomos, or Law of Hippocrates," a composition which, in conjunction with the oath, may still stand for the Medical man's profession of faith and rule of conduct.

A Handbook of Practical Telegraphy. By R. S. Culley, etc. Published with the sanction of the Chairman and Directors of the Electric and International Telegraph Company. 8vo. London: Longman and Co. 1863.

*** This work is adopted as a text-book by the Company under whose sanction it appears. After a short summary of electrical laws, the space is devoted to the practical management of apparatus, the detection of faults, and the construction of a line of telegraph. Much of this matter was previously only attainable by verbal instruction or actual experience. The language is divested of technicalities as much as possible, with the view of rendering the work more acceptable to practical men. On these grounds it may deserve the attention of our readers.

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The Glasgow Medical Journal. No. xliv. January, 1864. Mackenzie, Glasgow.

*** Contains articles on Diphtheria in Campbelton; on Certain Abuses of Caustics; cases of Tracheotomy in Croup and Diphtheria; also of Inversio Uteri; Death from Placenta Prævia; and an essay on the Mechanism of Parturition, by the editor, Dr. Leishman. Reviews and general news complete the number.

On the Calabar Bean: its Action, Preparations, and Use. By T. Nunneley, F.R.C.S.E., etc., etc. London: Longman. 8vo, pp. 38.

*** This paper, reprinted from the *Lancet*, contains the substance of the author's communications to the British Medical Association and the British Association for the Advancement of Science. It contains: 1. The internal effect of the bean alone, or in combination with strychnia. 2. The best solvent for its active principle. 3. Its local effect on the eye, and its most convenient form for use in practice. The subject is one of the highest importance, well summed up in the memoir.

Metropolitan Board of Works. Account in Abstract, showing the Receipt and Expenditure from March 26, 1862, to March 25, 1863. Also, Summary Statement of all Contracts entered into during such period, etc., etc.

*** Gives pecuniary details as to new streets, and the important main drainage of the metropolis.

The British Journal of Dental Science. No. 90. December, 1863. London: John Churchill and Sons, New Burlington-street.

The Second Step in Chemistry; or, the Student's Guide to the Higher Branches of the Science. By R. Galloway, F.C.S. With Illustrations on Wood. London: John Churchill and Sons. 1864.

The Quarterly Journal of Science. No. 1. January, 1864. London: Churchill and Sons, New Burlington-street.

Functional Diseases of Women. Cases illustrative of a New Method of Treating them through the Agency of the Nervous System by means of Cold and Heat. By John Chapman, M.D. London: Trübner and Co. 1863.

The Vine and its Fruit. By James L. Denman. London: Longman, Green, Longman, Roberts, and Green. 1864.

Braithwaite's Retrospect of Medicine. Vol. XVIII. January to June, 1863. London: Simpkin and Co.

Dichter und Aerzte. Poets and Physicians. Von Dr. R. Finckenstein. Breslau. 1864.

Notes on Hospitals. By Florence Nightingale. Third Edition. London: Longman and Co. 1863.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Amor Propre.—Jarvis, "Duties of Coroners," 10s. 6d. Stevens, Bell-yard, Fleet-street.

Medicus.—A soldier absent from duty on "furlough" is not entitled to Medical aid at the public expense, unless a military Surgeon happens to be stationed at the place where he may be residing. So that a private Practitioner, affording aid to a soldier so circumstanced, has no claim against the Government, and would not be allowed any remuneration, the man being on leave, and therefore a private individual.

New Jaw-bones!—The Abbeville jaw-bone, which raised such a storm a few months ago among geologists, has suddenly received an important reinforcement from a new quarter, MM. Gassigou, Martin, and Trutat having last week announced to the Academy of Sciences the discovery of two new fragments of human jaw-bones, discovered in the cavern of Bruniquel (Tarn-et-Garonne), under circumstances clearly pointing to the coexistence of man with some of the extinct species of carnivora, ruminants, and birds. The cavern lies in a mass of Jurassic limestone, and open towards the east at an altitude of about seven metres above the level of the Aveyron. Its floor consist of several successive strata —viz., a stratum of stalagmite, 22 centimetres deep; a pudding-stone, interspersed with bones, to a depth of 150 centimetres; and several black argillaceous strata, to a depth of 120 centimetres, interspersed with a quantity of flint implements and weapons, bones of various quadrupeds and birds, and a quantity of round pebbles, comprising garnets, gneiss, quartz, syenite, serpentine, etc. Lines of charcoal separate some of these layers; and the bones of the ruminants bear marks of having been fractured for the purpose of getting at the marrow, or making them into instruments or weapons; the extremities alone are still perfect, and have enabled the above-mentioned gentlemen to ascertain the species of *Cervus elephas, Bos primigenius, Rhinoceros tichorrinus*, and several birds, one of these being very large. But the reindeer is the animal which characterises the age of the cavern of Bruniquel. It belongs to M. Lartet's third palæontological period of the quaternary epoch. The existence of flint implements here would alone be sufficient to prove the existence of man in those distant ages; but this existence is placed beyond a doubt by the discovery of the two fragments of human jaw-bones, one of the right side and the other of the left, but belonging to different individuals. They are both in a bad state of preservation. Among the other fragments of bone there is the humerus of a bird, on which the body of a fish is roughly carved. This seems to have been an amulet or ornament. Ten witnesses were present at the finding of these relics. Hence, it appears that three human jaw-bones belonging to the same type (the brachycephalous one) date from three perfectly distinct periods, viz., that of Aurignac, found in company with the *Ursus spelæus;* that of Moulin-Quignon, accompanied by the *Elephas primigenius;* and that of Bruniquel, found among the bones of the rein-deer.—*Galignani.*

Pisciculture in the Thames.—Mr. Frank Buckland, in a letter to the *Times* of January 1st, gives the following account of the effort made during the past year to restock the Thames with fish:—

"We let loose on the shallows in the neighbourhood of Hampton, Sunbury, Walton, etc., 22,000 English trout, 6000 Rhine salmon, 2000 French trout, 3000 ombre chevalier (charr), and 2000 grayling, in all 35,000 fish, being when let loose about the size of minnows. Should there be any doubt as to whether these fish are doing well in the Thames, let me beg the reader to take a boat some warm morning next spring, and paddle gently along the shallows above Hampton, and I shall be much mistaken if he does not see a considerable number of our little silver-scaled beauties darting away like water swallows from the bank side. Last year, several skeggers—what a delightful sound to hear the word! (the local name for young salmon)—were caught with the fly at Sunbury, and to Mr. Charles' shop in Pimlico were brought three specimens of young salmon (nearly the size of herrings) which had been caught by a fisherman in his smelt nets at the mouth of the Thames. We have every reason to believe these were some of our hatching at Hampton. We are often told that it is no use putting salmon into the Thames, 'they will not be able to come back again.' My answer is, 'Of course they will never come back again if they are never put into the river.' We are in great hopes that they certainly will come back again when the main drainage works are complete; anyhow, we intend to persist in the experiment, be the result success or failure, and it will be a grand thing to restore the salmon to our noble river. A salmon is 'no fool;' he will not come up through the dirty water between bridges when the water is low, but will wait for a rush of comparatively pure water, and then up he goes. The English trout eggs hatched at Hampton we obtained with our own hands from various parts of England by the kind permission of the proprietors of the fisheries, and we have now just begun to stock our hatching boxes for this season. These boxes have already a considerable number of ova in them, and I here invite all those who are interested in the beautiful process of hatching fish by artificial means to call at Mr. Ponder's at Hampton, and examine the apparatus for themselves. The Acclimatisation Society (of which I have the honour to be one of the secretaries) have also erected a large apparatus on the premises of Mr. Francis Francis, at Twickenham, and the list of applicants for ova and young fish will show how many gentlemen there are who are anxious to obtain them for their fisheries. This apparatus is under the entire charge and management of Mr. Francis Francis."

The Health of Salisbury.—Mr. A. B. Middleton, in a letter to the *Times* of the 5th inst., thus notifies the continued low death-rate which has followed the sanitary improvements at Salisbury:—

"Some weeks since, public attention was called to the extraordinary death-rate in the city of Salisbury for the quarter ending September 30,—in a population above 9000, only 20 deaths having occurred, less than one-half of the average number, that average having been 45. The past quarter shows a number actually a little greater, but relatively much less when compared with corresponding quarters for many years, the deaths having been 24, in place of the old average of 60.

"This number of 24 deserves a special note, as by itself remarkable; and although inferences as to sanitary laws cannot be drawn from the returns of one quarter, nor even of the two quarters together, yet when it is seen that in 1863, generally an unhealthy year, only 133 deaths have happened in a town population of about 9200—a fraction over 14 in 1000—in place of the usual average, before drainage and waterworks, of 259, or 28 in 1000—a reduction of 126, or very nearly one-half of the whole number for an entire year—certainly such figures denote a sanitary fact the importance of which will be evident when viewed in conjunction with a few established of mortality. The average annual number of deaths in each 1000 of population over the whole kingdom being, for cities and large towns, nearly 25; for London, one of the healthiest cities, 22; for country districts and small towns, 19 (which figures will doubtless be exceeded in the returns for last year, an unhealthy one in London and the country), Salisbury, with only 14 deaths in 1000, will stand out prominently as furnishing one of the most favourable sanitary returns ever registered."

Erratum.—In the pass-list of the Apothecaries' Hall, published last week, *for* "William Henry Dison Mouce," *read* "William Henry Dison Menco."

Union of Fractured Patella in a Patient aged 80.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following case is interesting on account of the advanced age of the patient and its satisfactory termination:—

November 26.—I was sent for to visit Mrs. W., aged 80, and was informed that she had fallen down a flight of stairs. I found her suffering from several severe contusions on different parts of the body, but the chief source of complaint was the left knee, which was much ecchymosed. I also detected a complete transverse fracture of the patella, the fractured portion being separated to the extent of three-fourths of an inch. I placed them in close apposition, and applied a long splint to the posterior part of the limb, and a calico bandage. A considerable degree of inflammation set in, for which I directed the constant application of cloths wet with cold water. She suffered much pain for the first week after the injury, which was relieved by occasional small doses of morphia.

It was not until the expiration of a fortnight that the swelling was sufficiently reduced to allow me to apply a strong leather plaster around the joint, a strong wooden splint to the posterior, and a pasteboard splint to the anterior aspect of the joint.

On the 18th inst. I removed the applications, and found the fractured portions in complete adaptation, and firmly united by ligamentous union. She has now very good use of the limb, considering the short time which has elapsed since the occurrence of the accident.

I am, &c. EDMUND GRUNDY, M.R.C.S.E. and L.S.A.

Bury, Lancashire, December 27.

Iridectomy in Glaucoma.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As regards the interesting case of acute glaucoma, reported in your last by Mr. Hildige, of Dublin, will you allow me to observe, that I differ very considerably from that gentleman in his estimate of the value of iridectomy as preferable to "the simple evacuation of the aqueous humour?" Nor is Mr. Hildige so candid as he ought to be. He cannot be so ignorant of Mr. Hancock's operation for the division of the ciliary muscle as might otherwise be inferred from the absence of all mention of it in the letter referred to. But it is too much the custom, in the interest of iridectomy, to ignore the importance of this latter operation, and to class it merely as another method of evacuating the contents of the

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aqueous chamber of the eye; though, as this is a consequence and not the object of the incision made, which is to divide the fibres of the ciliary muscle, I do not see why it should be so described any more than iridectomy itself, in which there is the very same escape of the fluid. There must also be division of the ciliary muscle; and when only the same benefits are obtained, it becomes a serious consideration, if we reflect upon the serious consequences of non-success in iridectomy, how far even the most practised oculist is justified in performing it, when the simple operation of Mr. Hancock (well described in Hogg's "Ophthalmoscopic Surgery") is available in every case, and everywhere, where the Surgeon knows how to hold a lancet as in ordinary venesection. So much, perhaps, it is admissible for me to say, in the interests of humanity, without being included among those "fierce opponents of iridectomy" alluded to by Mr. Hildige; and I may add, however right and graceful it may be to break a lance in defence of his old teacher, Von Graefe, it seems to me a very remarkable way of proceeding to stigmatise legitimate progress—the substitution of a safe and very simple practice for one exceedingly difficult and dangerous—as having originated in a spirit of partisanship, and just for the sake, as it were, of opposition. I am, &c.

Barnstaple, January 8. ALPHA.

The Case of Symm v. Fraser and Another.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Allow me to correct a misimpression in your remarks on my letter. The subject of proceedings against Dr. Fraser and Mr. Andrews was not discussed during my professional intercourse with Mrs. Symm; it was about a year after my attendance that I first heard from her that she intended proceedings, and then and subsequently I advised her against them; and, if my memory does not fail me, the first intimation I had that I was to be mixed up in the case was when both Dr. Tunstall and myself were subpœnaed. It is, therefore, impossible that I could have, as you say, "lent myself" to the purpose of the plaintiff.

There is another point of more importance on which I must ask you to allow me to put myself right with your readers. I certainly did not write "Amicus Socrates, amicus Plato, sed magis amica veritas" as verse, though you have made me do so, but as prose. Whatever may be my sins, I was not guilty of this grammatical one. I must apologise for my delay in sending this, which has been from circumstances I could not control. I am, &c.

Bath, Dec. 29, 1863. JOHN BARRETT, F.R.C.S. (Exam.)

*** With regard to the first portion of Mr. Barrett's letter, we are sorry if we misunderstood the following sentence:—"It was no business of mine to sit in judgment on them, yet I did strongly urge *on the plaintiff, when she called on me*, in the first place not to bring, and afterwards not to persist in, the action, though I then feared, from what little I heard, that they had rendered themselves liable to it." As to the second portion of his letter, which Mr. Barrett regards of most importance, we are sorry to have to correct him as to the meaning of the terms he uses. The mistake was a *typographical*, clearly not a *grammatical* one.

The Effects of Vaccination in Modifying Small-pox.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following cases may be interesting to your readers, as proving the modifying effects of vaccination in subsequent contraction of small-pox, and also the difficulty of recognising cases thus modified from those of varicella.

On November 23 I was requested to visit Mrs. T., the mother of a large family, residing in a detached house some distance from any other dwelling. I found her very feverish; she had had a severe rigor; there was considerable stomachic disturbance, and inflamed conjunctiva. She complained of pain all over, but more particularly about the back. I inquired whether the family had been vaccinated, and was told—yes; that all had taken very effectually except the youngest child, a girl five years old, in whom, to use the mother's own language, "there was only one small pimple hardly to be seen."

On the third day of visiting my patient, I found her covered with a papular eruption, which on the day succeeding was secreting serum. About the sixth or seventh day the vesicles began rapidly to disappear, and after two or three days more had elapsed she was quite well. During the first five days of her illness, the pain, fever, and general derangement were considerable.

On the 8th of December following, and the two succeeding days, the father and three daughters, including the youngest before-mentioned, were similarly attacked, although from the commencement they suffered less from functional disturbance, except the latter, who, from the first, was exceedingly ill. The tongue became quickly and densely covered; there was great tumefaction of the whole body; the eyes closed, and there was scarcely a feature discernible. In short, the disease assumed the character of severe confluent variola, beneath which the little patient succumbed on the seventh day.

I deeply regret not having re-vaccinated the child on the first occasion of seeing the mother, thinking it probable that the attack might have been mitigated, if not prevented, had I done so. I shall not let the regret be to useless purpose as regards any future case, should I be similarly circumstanced. I am, &c. EDWARD COTTEW.

Hornsey-road, December 31, 1863.

Symm v. Fraser and Andrews.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I sincerely regret that Dr. Fraser should have been so ill-advised as to publish a personal attack on me, and still more that he should attempt in his letter to you to hold me up to the reprobation of my Professional brethren.

The evidence I gave was impartial; and surely I was the only person who could give a professional description of Mrs. Symm's condition on the night of the 24th of January. Dr. Fraser could not do so, because a month had elapsed since he had seen her; his friends, "professional and otherwise," who, he says, condemn my evidence, could not do so, because they never saw the patient at all. The policeman who saw her two days before could not do so, his business being to find the whereabouts of a tenant of Dr. Fraser's, who in a presumed state of intoxication had left her house unprotected from depredation. With regard to my cross-examination, this was confined to the nature, causes, and treatment of delirium tremens; this evidence was confirmed in every important particular by that subsequently adduced by the defence.

I again repeat "my account of my morning visitor, with his £5 note and subpœna," and will not allow "any plausible theory" that Dr. Fraser may "invent to account for it," to make me swerve from the plain truth, that I knew nothing whatever of the action, nothing of the presumed facts of the case, and nothing whatever of the evidence expected from me until I arrived in London in obedience to subpœna, unusual as the occurrence may be in Dr. Fraser's experience.

Surely, I cannot be held responsible for Mr. Chambers' speech; he was leader for the plaintiff, and his only duty was, if possible, to obtain a verdict for his client. Dr. Fraser has every reason to congratulate himself that the course of justice was not affected by his forcible advocacy of a bad case—a fact clearly shown in the admirable charge of the Lord Chief Justice, and the instantaneous verdict of the jury.

I have nothing whatever to do with Dr. Fraser and his solicitor's ignorance with regard to the names of Mrs. Symm's Medical attendants in Bath. The same means employed to find the runaway tenant would easily have discovered this; but no one but the plaintiff could have told them what Medical men were to appear at the trial, because these gentlemen were not asked to appear, but compelled by subpœna when the case was set down for trial.

Although I can most heartily and sincerely congratulate my Profession on the failure of this action, I must claim a small modicum of their sympathy for those members of their Profession who are compelled, as I was in this case, to appear as evidence for plaintiff in actions against Medical men, without being asked whether they can give evidence or not, who, in addition to browbeating from counsel, and reports of their skilled evidence given in newspapers by non-medical reporters, become the innocent victims of Professional misrepresentation.

The great fact is this—Dr. Fraser attended her in December, and swore to her state *then*. I saw her in January, and swore to her state *then*. Why should we quarrel? I am, &c.

Bath, January 5. JAMES TUNSTALL, M.D.

Alcoholic Stimulants in Fever.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As I have but just been watching the progress of a case of typhus of a very severe character (in fact, the case is still under my observance), and as I have been much impressed by the success of the alcoholic plan of treatment, I was astonished indeed to read the opposite plan of treatment (viz., "natural tonics," consisting of "food, air, and cleanliness," which no one with natural intelligence would neglect) laid down as the only correct treatment of this disease.

I am but young in practice compared with the gentleman whose opinions appeared in your last impression on this subject; but I have seen many of these cases, have watched them eagerly, and have been convinced of the efficacy of the alcoholic treatment of this malady, which, in all the cases of typhus which have come under my observation, has never failed. May I, then, claim your indulgence for the insertion of the following particulars?—

A gentleman, aged 28, tall, dark, of nervous and irritable disposition, and studious habits, had complained for several days of the usual premonitories,—chills, languor, congestive pains, and general *malaise;* and, as he was a Medical man, with fever around him, he often expressed the conviction that he had caught the fever.

On November 30 I saw him at nine in the morning. He was then in a state of active delirium, struggling violently, and attempting to jump from his bed, though he had occasional intervals of consciousness. He was much purged, and very weak. Three other Medical men were present, and he was then ordered to have one drachm of the compound chalk powder immediately, and half an ounce of wine every two hours, with the following mixture:—℞. Tr. hyoscyam., ʒss.; tr. aurant., ʒij.; aq. camph., ʒvj. Misce. sumat coch. amp., ij.; tertiis horis. At eleven, as the purging continued, the powder was repeated, with the addition of five grains of Dover's powder. At five, the delirium was still more fierce, though great prostration succeeded each outburst. Pulse 140. To take the following draught immediately:—℞. Tr. hyoscyam., ♏x.; aq., ʒiss. Misce. At twelve, he slept quietly; the breathing natural; pulse 130. Has not been purged since the administration of last powder.

On Monday, at 1.30 a.m., he awoke with a shriek, and, on joining him hastily, I found his head thrown back, his jaw fallen, dyspnœa urgent, pulse almost imperceptible, and remitting. Brandy was immediately in requisition, and he could swallow it; but, at 2 a.m., that chance was gone, and hope also. At 5.45, to every one's astonishment, he was observed to swallow the brandy which had been continually applied to his lips with a quill. From this time brandy was diligently supplied to him, and, at 11 o'clock, his pulse was fuller, though still 140. Countenance haggard, eyes glazed, and pupils dilated. 12 p.m.—He was decidedly improved; has taken brandy and beef-tea continually since last visit. Being very restless, he was ordered to take the following draught:—℞. Liq. opii sedativ., ♏v.; aquæ, ʒiss. Misce, ft. haust.

Tuesday, 10 a.m.—Has passed a tranquil night. Pulse 130, and fuller. A blister was applied to the back of the neck. 10 p.m.—Has taken his wine and beef-tea eagerly since last visit (when it was substituted for the stronger stimulant); occasionally recognising his attendants.

Wednesday, 10 a.m.—He has been quiet during the night, though he has never slept. 8 p.m.—He was more sensible, though muttering delirium is often present. Repeat the opiate.

Thursday, 10.30.—The opiate has been twice repeated, and a tranquil night resulted. At 12 p.m. he was quite conscious, and passed a tolerably quiet night.

On Friday he took ox-tail soup and two glasses of wine daily, in addition to sherry with his jelly.

Since this time he has gone on very favourably, with no symptom of relapse, and to-day he has walked half-a-dozen yards.

I have brought this case forward simply for the sake of an additional proof—if such are wanting—of the efficacy of the plan I espouse in the treatment of these diseases.

Apologising for the intrusion on your valuable space, and hoping that my Professional brethren will come forward to support this my view of the case, I am, &c.

December 15, 1863. H. R. S.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am very much obliged to those gentlemen who have thought my letter worthy of their notice, and especially to Mr. Bayley, for his elaborate explanation, which I shall now proceed to examine in detail.

It is quite clear that I have not cast any unfair imputation upon Mr. Bayley, as he corroborates the correctness of my description of the particular case referred to, and accepts the position that wine is not neces-

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sary in the treatment of diseases characterised by prostration, and even attributes the death of the patient to the mistaken kindness of the friends in administering wine. During the last two or three days of the poor man's existence, vomiting occurred immediately upon taking food. No attempt was made to administer nourishment by the rectum, and thus, for two or three days, this man, exhausted by the depressing effect of the fever poison, and incapable of assimilating nourishment, was deprived of wine, a substance requiring no digestion, but capable of being absorbed by the blood-vessels, and of conveying to the heart the stimulus required to keep it in action. The manner of death in this case was exactly what may be anticipated from the history, viz., death beginning at the heart, or cardiac syncope. Further allusion to this particular case is unnecessary, as it is not my wish to fix the attention of the Profession upon one instance of bad management, but rather to draw attention to the mistaken principles that guided the treatment.

The first part of Mr. Bayley's letter consists of quotations from a variety of authors, for the purpose of showing that alcohol is not a food; and Dr. Beaumont adds, that alcohol taken in the form of wine or brandy is exhaled from the lungs and skin, and is therefore not nutritious. By a fortunate coincidence, the same number of your Journal contains an article, or rather a review of a work, on the "destruction of alcohol within the economy," by M. Baudot, who proves, by a series of most carefully-conducted experiments, that alcohol is not eliminated by the skin and kidneys, and that it is destroyed in the economy. Assuming, however, that alcohol is eliminated, such a fact has no bearing upon the action of alcohol as a medicine, since its absorption by the blood-vessels and transmission through the circulatory system is incontestably proved, and it is obvious that its presence in the blood may exert a direct and powerful influence upon the nervous system, and, through the nerves, upon the heart itself. That it has such an effect all writers concur in testifying; and anybody may prove it upon his own person by counting the pulse immediately before and after taking a glass or two of wine.

In addition to the assertion, that alcohol is not an alimentary substance, Mr. Bayley reiterates the expression, that alcohol is a pernicious poison, that it is the most pernicious substance received into the stomach, and that toxicologists agree in defining it as a narcotic. Conscious that all this has no bearing upon the question at issue—viz., the medicinal employment of wine in exhaustive diseases—he (Mr. Bayley) connects the argument by the following curious specimen of reasoning:—Thus, he says, "If these facts be true with regard to health—viz., that alcohol is a pernicious poison, etc.—they apply with double force to states of disease, especially of an adynamic character." The utter absurdity of this argument will be best exhibited by applying it generally. Thus, arsenic is a pernicious poison in health, therefore it is doubly injurious in disease, and so on with all medicinal agents; so that we arrive at the startling conclusion, that all medicines being pernicious in health are doubly injurious in disease. It is almost unnecessary to add, except for Mr. Bayley's information, that virulent poisons may be most useful medicines—as opium, strychnine, belladonna, etc., etc.—and that it is generally true that the most active and powerful poisons are the most useful medicines in the hands of the skilful Physician.

And now let us examine Mr. Bayley's assertion, that alcohol is not a stimulant; and here I shall point out that his friends, Mr. Mudge and Dr. Beaumont, appear to differ with him, as they both employ the term "alcoholic stimulants." "Toxicologists," Mr. Bayley says, "regard alcohol as a narcotic." Toxicologists are those who treat of the action of poisons in poisonous doses; with this we have no concern. The medicinal dose of alcohol is small, and exerts a stimulant action on the circulation through the nervous system. All writers that I have been able to consult regard wine and brandy as diffusible stimulants; and I would ask, what is the effect of brandy when administered to parturients exhausted by very rapid and violent hæmorrhage, when fainting occurs and the heart ceases to act? Do we not immediately administer brandy in addition to the proper means for restraining further loss, and is it not usually successful? Would the theorists who deny the stimulant properties of alcohol remain consistent with their opinions, and withhold the use of brandy in such an extremity?

The principal authority adduced by Mr. Bayley in support of his views is Mr. Higginbottom, of Nottingham, who himself confesses that his method of treatment is "contrary to the received opinion and practice of the Profession," and who also regards wine as an artificial stimulus. It is quite possible that the type of fever which came under Mr. Higginbottom's notice was inflammatory, and not requiring stimulants; but admitting to the full the statement of Mr. Higginbottom, is admitting that he advocates the treatment of true typhus without wine: surely the experience of one man ought not to counterbalance that of the most eminent Physicians throughout the empire, the general testimony of the Profession, and also of those whose connexion with Fever Hospitals has afforded them the fullest possible opportunity of observing the effect of wine in the treatment of fever. A few quotations will prove that these latter are unanimous in their approval of the employment of wine.

Dr. Stokes, of Dublin, directs our particular attention to the phenomena of the heart's action as an index for the administration of wine. It is sufficient for the purposes of this discussion to quote these words:—"I believe that in the diminished impulse, and in the feebleness or extinction of the first sound of the heart, we have a direct and important indication for the use of wine in typhus."

Dr Bennett, of Edinburgh, says:—"Among all the agents at your command there are none which will enable you to conduct a case of fever to a favourable termination more successfully than stimulants, when properly managed."

Dr. Barlow, of Guy's, says:—"As wine is a direct stimulant to the heart and large vessels, it is highly desirable to delay its use till the fever has subsided, etc.; when this is the case, although the tongue be brown, the patient almost unconscious, and in the most abject state of prostration, we may confidently expect the greatest benefit from wine freely administered." And he further says, that "in cases of extreme prostration brandy must be given in addition to wine."

To these authorities I could add the names of Drs. Watson, Tweedie, Murchison, *cum multis aliis*. I will only cite one other authority—Professor Miller, of Edinburgh, himself a total abstainer. In a little work entitled "Alcohol: its Place and Power," written especially for teetotallers, he commences the article "On Alcohol as a Medicine" thus:—"From amongst the fiercest poisons come some of our most valued medicines." (I commend this sentence to Mr. Bayley.) And he also says:—"In certain fevers, such as typhus, there is marked and dangerous depression. Practitioners have, in consequence, learnt to anticipate and oppose the evil by an early and judicious use of stimulants."

These quotations are sufficient to prove that Medical men of the greatest experience advocate the employment of wine in fever. I will conclude with my own opinions respecting the general question—viz., the treatment of fever. In the commencement of fever, if the arterial system be excited, the pulse full and strong, the face flushed, and tongue white and furred, an emetic may be given with advantage, and followed up by salines with antimony. This type of fever is, however, very rare in the present day, and the usefulness of emetics is confined to fever of this type. In fevers, as now seen, the nervous element predominates; excitement is rapidly followed by exhaustion, and it is better to anticipate, and, if possible, prevent sinking, by the timely administration of wine. With regard to quantity, no law can be laid down: the quantity of wine must be measured only by the effect upon the heart and arterial system; and whereas, the stomach in certain cases of fever is unable to digest or assimilate food, wine is then invaluable, as it requires no conversion, is absorbed immediately, and is sufficient in itself to keep the heart in action, and so gain time for the elimination of the fever poison by the natural channels.

I am, &c. THOS. MASSEY HARDING.

Stourbridge, December 21, 1863.

COMMUNICATIONS have been received from—

THE HARVEIAN SOCIETY; Dr. DEVENISH; Dr. SYMONDS; Dr. J. TUNSTALL; ALPHA; Mr. THOMPSON; W. H. D. MENCE, Esq.; THE ETHNOLOGICAL SOCIETY; AMOR PROPRE; Mr. J. Z. LAURENCE; WOODY FIBRE; Mr. JOHN BARRETT; Mr. E. BREMRIDGE; OBSTETRICAL SOCIETY OF LONDON; Dr. E. COTTEW; Mr. ROBERT HOWARD; ROYAL MEDICAL AND CHIRURGICAL SOCIETY; MEDICAL SOCIETY OF LONDON.

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 2, 1864.

BIRTHS.

Births of Boys, 1176; Girls, 1132; Total, 2308.
Average of 10 corresponding weeks, 1853-62, 1661·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	832	810	1642
Average of the ten years 1853-62	721·5	695·2	1416·7
Average corrected to increased population..	..	..	1558
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	4	2	9	3	6	13	5
North ..	618,210	8	12	24	..	10	17	3
Central ..	378,058	1	6	9	4	14	9	1
East ..	571,158	1	2	20	2	11	19	2
South ..	773,175	1	11	31	4	10	18	4
Total ..	2,803,989	15	33	93	13	51	76	15

APPOINTMENTS FOR THE WEEK.

January 9. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

11. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr. Palfrey, "A Case of Uterine Polypus, unaccompanied by Hæmorrhage." Mr. W. Miller, "On Two peculiar Properties of Chloroform independent of Anæsthesia." Dr. Habershon, "Abscess of the Liver."

12. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. Rev. G. R. Hall, "On the British god, Mogon, and the Religion of the Northumbrian Celts." C. R. Markham, Hon. Sec. Geog. Soc., "On the Tribes inhabiting the Valley of the Amazon and its Tributaries."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Mr. Holmes Coote, "Case of Left Ovary Found in the Sac of an Inguinal Hernia." Dr. Habershon, "Effects of the Implication of Branches of the Pneumo-gastric Nerve in Aneurismal Tumours." Dr. John Harley, "On the Endemic Hæmaturia of the Cape of Good Hope."

13. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.

HUNTERIAN SOCIETY, 8 p.m. Dr. Paldy, "On the Influence of Feeble Heart upon Disease."

14. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; Royal Free Hospital, 1½ p.m.

15. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

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ORIGINAL LECTURES.

CLINICAL LECTURES
ON
THE DISEASES OF WOMEN,

By J. Y. SIMPSON, M.D., F.R.S.E.,
Professor of Medicine and Midwifery in the University of Edinburgh.

ON ACUPRESSURE.

(Continued from page 27.)

SECONDARY HÆMORRHAGE—IS IT MORE LIABLE TO OCCUR WITH ACUPRESSURE OR WITH DELIGATION?

Any one who has been in the habit of witnessing the closure of vessels against hæmorrhage by the ligature is liable to fall, against his better judgment, into the mistake of supposing that some strong force is necessary to secure arteries against the mischances of primary and secondary bleeding. The mistake originates in the fact that, in seeing the ligature applied, he sees much force employed—so much as will sometimes break a strong thread. But the force here used is, of course, not the force required to stop successfully the flow of blood along the artery, but the force required to divide and tear through the two inner coats of the vessel—an effect which is necessary to allow of the strangulated external coat being eaten through by ulceration, as speedily as possible. How small, however, and delicate an amount of pressure is necessary to close the mouth of an artery against the escape of blood we know theoretically from physiological experiments upon the force of the current; and we daily ascertain it practically by witnessing how very slight a touch of the finger will close temporarily, in operations, the bleeding mouth of any large artery. In acupressed vessels we find in the same way a comparatively small amount of pressure sufficient to occlude their canals, provided the pressure is applied as directly as possible to the vessel, and without (as, indeed, I have already stated) the intervention of a cushion of elastic tissues between the vessel and the needle. When thus used, the compression of the needle is as effectual in preventing primary hæmorrhage as the laceration and tightening of the thread. But will acupressure prevent *secondary* hæmorrhage as effectually as deligation?

The common local causes of secondary hæmorrhage in deligation consist of ulceration or sloughing of the arterial walls—either too rapid in point of time, or too great in point of degree—by which the cavity of the artery is opened before the internal plug of blood and fibrine, formed above the ligature, has completely occluded its canal. Mr. John Bell tells us that "secondary hæmorrhage arises from ulceration of the artery more frequently than from any other cause."—("Principles of Surgery," vol. i., p. 321.) Secondary hæmorrhage "may occur (observes Dr. Druitt) from *sloughing* or from *ulceration* of an artery; or from imperfect closure of an artery when a ligature separates." Or, according to Mr. Syme ("Principles of Surgery," page 89), "if a ligature has been applied, the ulceration by which it is separated, if too rapid or extensive, may cause a bleeding from three days to as many weeks after the infliction of the injury."

In every case of deligation there is more or less ulceration and sloughing as an unavoidable consequence of the use of the ligature. It is when one or other, or both, of these processes go to a morbid excess and depth, that secondary hæmorrhage from the opened arterial tube follows. But, in acupressure, there is no required ulceration or sloughing at all of the arterial tube; its cavity is obliterated merely by laying its internal surfaces in contact by the pressure of the needle. And hence, secondary hæmorrhage as the result of its two common causes—viz., ulceration and sloughing—should be almost or altogether unknown when acupressure is resorted to.

But in the present limited state of our knowledge regarding the mode or mechanism of the occlusion of arteries by acupressure, and the time required for it, acupressure has been followed by secondary hæmorrhage in two amputations out of the pretty long list in which the vessels in stumps have been acupressed. These cases and their causes are, therefore, considerations of no small moment. In the first of the two, probably the needle was withdrawn too early, and before the sealing up of the arterial tube was fully accomplished. In the second case, the process of internal closure of the tube by an internal plug and cohesion was probably delayed much beyond the usual time by the state of impaired health and impaired blood of the patient. The first has been reported by Dr. Hamilton in his Carlisle list of cases:

Case 8.—*Amputation of the Thigh, with Acupressure and Secondary Hæmorrhage.*—A boy, aged five and a-half years, underwent primary amputation of the thigh, at its lower third, for a railway accident, which had mangled the leg. Twenty-four hours after the amputation, Mr. Page withdrew the only two acupressure needles that had been required, when bleeding immediately occurred to the extent of two ounces. The dressings were at once removed and the stump raised, when the hæmorrhage ceased. There was no tension or redness of the flaps. The blood escaped by the opening left by the wires of the acupressure needles. Except at this point, there was union by the first intention along the whole line of incision. For the next two days, the pulse, as on the first day, was high, with vomiting and much tossing. After a fit of restlessness, hæmorrhage recurred from the wound forty-one hours after the withdrawal of the needles. It ceased under manual compression of the femoral and raising of the stump. "Having," says Dr. Hamilton, "adjusted a tourniquet over the vessel high up, I forcibly tore asunder the flaps, which were adherent from end to end, except at the small orifice by which the blood escaped on the 26th; then clearing out some newly-formed clots, exposed the bleeding orifice, which proved to be that of the popliteal. I then passed a needle under it, and secured it in the usual manner. The hæmorrhage being completely checked, the flaps were approximated by four points of wire suture. On this occasion it was calculated that between four and five ounces of blood were lost." There was no recurrence of hæmorrhage. Sixty-nine hours after the introduction of the needle, it was withdrawn; and within five weeks after the amputation, the wound from it was quite closed and healed.

Perhaps, in this instance, the needles were withdrawn too early—that is, within twenty-four hours after amputation of the thigh. More evidence, however, as I have already argued, and more experience are required on this point before any very fixed principles can be laid down. I will betimes have occasion to speak of a case of thigh-amputation, where the needles were withdrawn in a young child within twenty-four hours, and without bleeding following. In conversation upon the preceding case, Dr. Hamilton informed me that he was inclined greatly to attribute the second attack of hæmorrhage to the little patient's great restlessness.

Perhaps I may also be allowed to add here, that in Dr. Hamilton's report of amputations at the Carlisle Hospital, there are given eleven cases where the ligature was used, and eleven where acupressure was employed. Among the latter eleven there was only the preceding case of secondary hæmorrhage. Among the former eleven, where the ligature was used, there were four cases of secondary hæmorrhage, and two of these were cases of fatal secondary hæmorrhage. In other words, there happened in that institution four times more cases of secondary hæmorrhage from the ligature than from acupressure.

Case 9.—*Amputation of the Thigh—Secondary Hæmorrhage after Acupressure.*—In the case of a phthisical young man, of twenty years of age, Mr. Crompton performed circular amputation in the lower third of the thigh, on account of severe compound comminuted fracture of both tibia and fibula,—the result of an engine-tender having passed over his leg. The femoral artery was secured by an acupressure needle, and two small muscular arteries were twisted. After seventy hours the stump was in great measure united, but there was still pulsation over the needle near its point of exit. Mr. Crompton, therefore, hesitated about withdrawing the needle, but, as there was considerable inflammation and suppuration in its track, he ventured to remove it. No hæmorrhage took place at the time, but two days afterwards Mr. Crompton found four or five ounces of coagulated arterial blood on the bed, and more blood still oozing from the depending part of the incision. He at once reintroduced the acupressure needle a little higher up, and thus arrested the bleeding completely. The hæmorrhage was attributed to the patient having made use of the bed-pan about half-an-hour before. That same day slight symptoms of phlebitis had been noticed. Shivering and vomiting soon followed, and the patient became delirious at times, and died of pyæmia on the tenth day after the operation. On examining the body, "the external iliac," to use Mr. Crompton's words, "and the common and superficial femoral arteries on the right side, were found quite empty, even down to the position of the needle, and the lining coat was of its natural colour, except at the point of pressure,

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where there was a line of blue discoloration. The external iliac and common and superficial femoral veins were filled with decomposed clots and sero-purulent fluid. This state did not extend into the common iliac vein or the vena cava." The apex of the left lung was "adherent," says Mr. Crompton, "containing several small cavities. Around them, for two or three inches, the tissue of the lung was filled with tubercular matter."

In this patient, it would appear that the internal consolidation and organisation of blood or fibrine necessary for the permanent occlusion of the injured artery had never properly taken place. Whether this deficient action was owing to the previous low state of the young man's health, as testified by the tubercular disease in his lungs, or to the depression resulting from the injury and the operation, or to some other cause, it is not, perhaps, possible to determine. It possibly would have occurred equally with the ligature. But an important lesson in acupressure practice is surely read to us by this interesting case; for, according to the very sagacious observation of Mr. Crompton, the pulsation could be felt going on along the artery down to the very point of compression by the needle; and the lesson, I take it, is this—that so long as the arterial pulsation in any case may be felt close to the needle, as can always be done immediately after its insertion, we may regard it in any doubtful case as an indication that perfect consolidation and permanent occlusion have not yet taken place, and that the time for the withdrawal of the needle has not yet arrived.

No improvement in our Profession has ever, perhaps, succeeded without, in the first instance, being more or less strongly and strenuously opposed. In consonance with this common and healthy law, there have been adduced, since I first suggested it, a variety both of special and of

General Arguments against Acupressure.

Some of the earliest general objections urged consisted, of course, of the two old standard objections, which are always ready to be adduced against every proposed innovation in practice, namely—*First*, that the proposed practice is not new; and, *Secondly*, that it is not true, or, in other words, will not be found to have the power claimed for it—that power being in this instance the power of arresting hæmorrhage.

Before I first brought the subject of acupressure under the notice of the Royal Society of Edinburgh in December, 1859, I took occasion to look over a great number of chirurgical treatises, both ancient and modern, with the expectation of finding some notice of such a practice in the past records and suggestions of Surgical science. But I met nowhere with any hint as to the *needle alone* being ever employed as a hæmostatic agent. M. Velpeau, in some experiments upon dogs, had, with a view to the cure of aneurism, tried to obliterate the femoral and other arteries, by transfixing or piercing the cavity of the vessel, and leaving the portion of needle which traversed the cavity of the vessel as a foreign body, around which a coagulum might form. In one or two instances, the late Mr. Phillips, of London, introduced into the sacs of aneurisms in the human subject the ends of needles, with the same views, namely, with the hope of producing retardation and coagulation of blood in the aneurismal cavities. But these proposed operations were on quite a different principle from needle compression. They were instances of the acupuncture of vessels, and not of the acupressure of them. The plan of using a *needle and wire* in conjunction together, as in the third method of acupressure which I have already described, has been long used to some extent as an indirect hæmostatic means in harelips, and occasionally in other affections where twisted sutures are employed, as in the cure of varices and of nævi and other vascular tumours; and Velpeau suggested, but apparently never yet tried, whether the plan could not be extended from veins to arteries supplying aneurisms. But I am not aware of any previous proposal to use it as a means of closing up the ends of arteries laid open in a Surgical wound.

The second argument, that the needles would not produce the effects theoretically claimed for them, has now been fully set aside by the experience of their employment in many operations—in several amputations of the thigh, and other amputations of the limbs, in excisions of the mamma, and of tumours, etc. That the needles can and do arrest Surgical hæmorrhage as certainly as the ligature, is now well known to all who have seem them employed. Acupressure, however, is still in its infancy; and the history of the deligation of arteries, and of other similar innovations in Surgery, does not offer strong hopes for any very speedy and general introduction of it into practice. At the present time it is passing through many of the same ordeals of objection to which the ligature itself, as a means of arresting Surgical hæmorrhage, was very long subjected.

The want of a simple and efficient means of arresting Surgical hæmorrhage long retarded the progress of Surgery. The ancient and mediæval Surgeons seared the raw surfaces of their wounds with red-hot irons, or besmeared them with boiling oils and pitch, or applied potential cauteries, as they were termed, to the bleeding orifices. In order that the tide of flowing blood might be stemmed as speedily as possible, the old Surgeons recommended the red-hot cautery-iron to be pressed strongly and rapidly against the bleeding surface—("fortiter admovendum est"); and Hildanus further urges that the Surgeon should, if possible, be "ambidexter;" for, holding a heated cautery in each hand, he was thus able to apply them both at once, so as to grill and char the whole raw wound with duly artistic expedition. "The horrors of the patient," truly observes Mr. John Bell, "and his ungovernable cries, the hurry of the operator and assistants, the sparkling of the irons, and the hissing of the blood against them, must have made terrible scenes, and Surgery must in those days have been a horrid trade." Just 300 years ago, or in 1564, Ambrose Paré, declaring the application of cauteries and caustics to Surgical wounds to be "a thing which cannot be spoken or but thought upon but with great horror, much lesse acted," and seeing further that "combust wounds difficultly come to cicatrisation," ventured to propose in their stead the ligature of the bleeding vessels in amputations. But this beautiful and simple suggestion of Paré excited little, except the ire and the persecution of most of his contemporaries. They petitioned the French Parliament to prevent the dissemination of his doctrines. His contemporary, M. Gourmelen, Professor of Surgery to the Faculty of Medicine at Paris, bitterly denounced Paré and his invention in a work on the principles of Surgery which he published in 1566. He and other Surgeons had been so long accustomed to their caustics, and were so satisfied—so perfectly satisfied—with *their* power and effects, that they wanted no such disturbing innovation as this ligature. "It was then," writes Gourmelen, "very forward, rash and presumptuous in a certain person to venture upon condemning the cauterising of vessels (after cutting off a mortified limb)—a method so highly and continually commended and approved of by all the Ancients; teaching, in opposition to that, without any authority, without knowledge, without experience, without good sense, some new method of his own, of tying arteries and veins."—(See John Bell's "Principles of Surgery," vol. i.) This same argument of the old Parisian Professor—and in nearly the same words, too—was employed two or three years ago in the Medico-Chirurgical Society of London, when the subject of acupressure happened to be discussed.—See *Medical Times* for April, 1860, pages 425 and 459, and *Lancet* for May, 1860, page 446.) Paré's proposal spread very, very slowly. Even his favourite pupil, Guillemeau, to whose evidence in favour of the ligature Paré himself had directly appealed, and who translated Paré's works into Latin, declared his preference for the old orthodox cauteries in some forms of amputation. We know, from Dionis, that the Surgeons at the great Hospital of the Hôtel Dieu of Paris—the city in which Paré lived and practised—continued still, a century and a half after Paré's time, to apply to the open arteries vitriol buttons instead of ligatures in all their amputations. The same distinguished Surgeon, Dionis, in his "Course of Chirurgical Operations" (the first edition of which was published in Paris in 1707), tells us that, after removing cancerous mammæ, he himself had now "given over the use of the searing irons called fire-buttons, and that of the red-hot flat-iron," because, when approached to the raw and bleeding wounds, "these hot irons," says he, "make the patients *tremble*;" and no wonder. He recommends the hæmorrhage attendant on that operation to be restrained by the application of chemical caustics and the use of astringent powders. I copy these expressions from a second English edition of Dionis' work, published in London in 1736. In the most popular English Surgical work of the last years of the seventeenth century, Mr. Cooke, when treating of that "dreadful operation," the amputation of limbs, tells us that it is done "with the dismembering-knife, which some use red-hot;" and for staunching the resulting hæmorrhage you may employ three modes—first, potential caustics; or secondly, "actual cauteries," which are (he says) to be applied to the mouth of the vessels, being cleansed from clotted blood once or twice at most. "The third way (he

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contemptuously adds) is by stitching, which is almost *wholly rejected*. See Paræus for the manner."—("Cooke's Marrow of Chirurgery," fourth edition, 1693, p. 203.) Toward the middle of the last century the knowledge of the "stitching" after ligature of vessels was still in such a condition in our own country, that Mr. Sharpe, Surgeon to Guy's Hospital, when he published in 1761 his well-known work, entitled, "A Critical Inquiry into the Present State of Surgery in England," found it necessary formally to advocate the employment of the ligature for the arrest of Surgical hæmorrhage in preference to styptics and the cautery, because "it was not yet universally practised among Surgeons residing in the more distant counties of our kingdom."

The history of the ligature in Surgery powerfully and painfully teaches us how very hard and very difficult it is for the Professional mind to give up ideas and practices to which we have been long trained by education and by experience. "Porro," exclaims Fabricius Hildanus, when discoursing of the grand properties ("egregiæ virtutes") of his red-hot cautery-knife —"porro excellentiam hujus cauterii non satis extollere possum." Formerly he and other Surgeons scornfully rejected the ligature, because they were completely satisfied and contented with their cauteries, and declared that they required on change. Now-a-days, Surgeons reject acupressure on the same argument, because they are quite satisfied and contented with the ligature, and declare they require no innovation. In discussing this question, I have both read and heard of leading and eminent Surgeons stating that the ligature was "one of the grandest things in Surgery," "excellentiam non satis extollere possum." What! one of the "grandest things" in Surgery to bury and implant in the depths of every wound which it inflicts as many sloughs of dead decomposing arterial tissue as there are arteries tied, and expect primary union to follow! Surely English Surgeons in the latter half of the nineteenth century ought to be able to boast of something better than a practice which thus bids utter defiance to all the fundamental principles of true English Surgery.

Besides the general arguments which I have noted, there have been brought forward by different Surgeons several individual or

Special Objections to Acupressure.

It is necessary for us to consider the chief of these special objections in detail, however tedious and disagreeable the process may be; and in doing so, perhaps we may find that most of these so-called objections turn out as arguments in favour of acupressure rather than against it.

First Objection.—Compression of the Attendant Veins and Nerves.

"In acupressure," observes Professor Miller, "it appeared to him impossible to limit the needle to the bleeding point, so as to avoid including along with it the vein, and probably also the nerve. But it was well known," he continues, "that veins were extremely intolerant of pressure, and could not be subjected to it without the most hazardous consequences." (*Edinburgh Medical Journal*, 1860-61, p. 568.) The simple and direct answer to this objection consists in the fact, that acupressure has now been used in a considerable number of amputations and other operations without any such evil consequences as those suggested by Professor Miller having ever been produced. And even *à priori*, one would scarcely, I think, expect that the mere compression of the tube of a vein, for twenty, forty, or fifty hours at most, would be liable to excite deleterious results. In his "Principles of Surgery," Professor Miller recommends for the cure of varix, that a series of needles and threads, in the form of twisted sutures, should be placed around the dilated vein, so as to compress and obstruct its canal, not for a few hours, as in acupressure, but for "some days." And he speaks of this as a "simpler and safer mode of treatment" than any other. If a diseased vein can stand such prolonged and strong pressure with comparative impunity, surely a sound vein may do it still more safely when both much less in degree and much shorter in duration. After venesection, and wherever, in fact, there is venous hæmorrhage, we compress the sides of the vein together with a pad or otherwise, and, I think, usually without dreaming that any evil consequences are apt to follow the temporary obliteration of the venous tube by compression.

But, further, I am inclined to hold that the closure of the vein along with the artery is, perhaps, a gain from acupressure, instead of an objection to it. Dr. Watson, Lecturer on Surgery, has adduced the opinion, that one great cause of the non-union of amputation wounds by primary adhesion was the circumstance, that after the wounds were closed, "oozing ensuing afterwards, the cut surfaces were kept apart by a coagulum, which, acting like a foreign body, induced suppuration."—(See *Edinburgh Medical Journal*, 1860-61, page 569.) Surely this deleterious coagulum of blood is much more likely to be mainly, if not entirely, venous than arterial in its origin; for every careful and conscientious Surgeon takes due pains to close all the arterial orifices that are bleeding upon the surface of his wound. He diligently ties these arterial orifices, though he usually avoids tying any venous orifices. Sometimes, however, though not very often, the veins in a stump wound, as described by Chelius, Velpeau, Fergusson, Skey and others, do bleed so profusely as to require to have their orifices occluded. If these orifices are tied with a ligature, the tissues of the vein are lacerated; and such physical injury may be apt occasionally to terminate in phlebitis. If, on the contrary, these venous orifices are closed by acupressure, they escape any direct physical injury to their tissues; and further, perhaps it may be yet found that the closure of the venous orifices in stumps, where acupressure is used, is a prophylactic measure of great importance in this respect—that hereby we prevent, to a certain extent, the introduction or absorption by these gaping venous orifices of deleterious and ichorous fluids existing upon the surface of the wound itself.

The supposed deleterious effects of compression of the attendant nerves in acupressure are, I believe, equally groundless and hypothetical. Patients whose wounds are acupressed have certainly, in truth, not more pain than those which are ligatured. I have seen the central artery of the sciatic nerve, and, consequently, the mass of the nerve itself, compressed by an acupressure needle without any bad effects; and here the nerve compressed was the largest that can be met with in Surgical wounds. The case in which this occurred was in the practice of Dr. Handyside, and was, in various other respects, interesting in reference to our subject.

Case 10.—*Amputation of the Thigh at its Upper Fourth.*—The patient was a strumous man, aged forty-one, emaciated and debilitated to the last degree, and labouring under high irritative fever, in consequence of an extensive ulcer from a burn. The ulcer was of several years' duration, and involved the right thigh, knee, and leg. Dr. Handyside amputated the thigh at its upper fourth. The vessels which bled were acupressed with short needles. As the wound was about to be closed, a projecting portion of the sciatic nerve was clipped off, and its central artery began to bleed freely. To avoid the removal of the stitches which had been already introduced, a needle, five inches long, was brought down between the sciatic nerve and the os femoris, through the skin of the region of the hip, and made to emerge between five and six inches from its point of entrance. The effect of this acupressure was instantaneously seen in the bleeding being arrested. This long needle was removed from under the sciatic nerve twenty-five hours after the operation. The stump yielded a discharge of pus not great in quantity. Two months after the operation, both the stump and the entire body of the patient had become stout; and his pulse, which, long before the operation, had been extremely rapid and intermittent, was now seventy-two, and regular. On the night of the operation the patient had severe pain in the back,—an effect produced more probably by cold, wetting, and exposure on the operating table, than by the acupressure of the sciatic nerve; for the withdrawal of the needle had no effect in lessening the pain; it increased subsequently, and was relieved, at his own suggestion, by the application of a strengthening plaster,—a remedy which he had used successfully in similar attacks.

Perhaps it is not uninteresting to stop and remark, that almost all the leading arguments and objections which in olden times were adduced against the introduction of the ligature, and for the perpetuation of the heated iron, have been reproduced, perhaps unwittingly, against the introduction of acupressure, and for the perpetuation of the ligature. Names, and men, and times, and things change, but the spirit of opposition always continues wonderfully the same in all ages. In the observations of Professor Miller, from which I have cited his objection regarding the deleterious compression of the veins by acupressure, he argues that, in Surgery, innovations are not necessarily improvements. M. Gourmelen, Professor of Surgery in Paris, uses the same argument, in nearly the same words, against Paré's "*new* way to tye the vessells," and its "farre greater perills." He maintained that the drawing out of the vessel for deligation would "bring no lesse paine than the cautering from doe," and he adduced Pro-

fessor Miller's objection regarding veins and arteries,—"for if the needle shall pricke any nervous part, yea, the nerve itselfe, when he shall by this new and unaccustomed way constraine the vein by binding it, there must necessarily follow a new inflammation; from an inflammation a convulsion; from a convulsion death."—(See Translation of Professor Gourmelen's Objections in the English edition of Paré's works, page 1134). No one, I fear, has any great respect now for these arguments in favour of the "burning and ustion of the vessells," "much praised and commended, and always approved by the Ancients." Perhaps the same argument, as applied against acupressure, is destined ere long to meet the same fate.

[The fourth part of this lecture on Acupressure is in type, and will appear in our number for January 23.]

ORIGINAL COMMUNICATIONS.

CASES OF UNUSUAL SLOWNESS OF PULSE, WITH REMARKS.

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(*Read before the Hunterian Medical Society, December* 2, 1863.)

(Continued from page 33.)

The following instance affords an example of slowness of pulse coming on with the cessation of the fibrile symptoms in acute rheumatism—an affection in which I do not remember to have previously noticed the peculiarity. It is, however, possible that the patient's pulse may always have been below the ordinary standard, and, if so, the case should rather be placed with the first class of cases described by Mr. Mayo:—

Case 3.—*Remarkable Slowness of Pulse coming on during Convalescence from Rheumatic Fever, with a Murmur at the Base of the Heart, regarded as Anæmic.*

Sarah H., aged 21, a servant, residing in Kennington-lane, was admitted into Elizabeth's Ward, October 15, 1863, labouring under symptoms of rheumatic fever. She states that her father is living, but her mother died in early life, with symptoms of rheumatism, terminating in decline. Of the family of eight, two only are living besides herself, and those who are dead all died in early life. She is of a fair complexion, very anæmic in appearance, and obviously strumous, and states that she has been all her life subject to rheumatic pains, but has never before had rheumatic fever. About a month ago, being somewhat out of health, she left her situation, and went into the country; was away about a week, and on her return began to feel poorly,—suffering from sore throat and pains in the limbs; and about three days before her admission she had pains and swelling in the limbs, and was not able to get about. On admission, she had a draught and a purgative powder, and has since taken a scruple of carbonate of potash and half a drachm of bicarbonate of potash thrice daily.

On the 18th she had two grains of calomel and ten grains of Dover's powder at night.

October 19.—She is not at present materially better. Her tongue is somewhat dry and furred; her pulse is sharp, 100; her skin is hot, and she perspires profusely; she complains of pain and stiffness at the back of the neck, left shoulder and wrist, and left ankle, and the latter is considerably swollen and somewhat red, and very tender. There is a copious eruption of small papular and partly vesicular spots upon the thorax; the heart's sounds are somewhat flat, without murmur; a sibilant rhonchus is heard over all parts of the chest. She says she has not got any rest at night since her admission. To have one grain of calomel and six grains of Dover's powder each night. Her bowels are acted upon regularly, and she passes a considerable quantity of water, which is slightly alkaline, and has a specific gravity of 1032.

22nd.—She appears better, and expresses herself as freer from pain; she does not sleep at night, but dozes, chiefly during the day; she complains of pains in the left arm and ankle, but the pains are better in the arm, and she can move it more freely; the ankle still continues red, swollen, tender, and painful. The back of the neck is easier, and she can open her mouth more freely than before. Tongue somewhat dry, red at the tip and edges, slightly furred on the dorsum; pulse slow, 60; skin warm, profusely perspiring; perspiration somewhat sour and offensive; heart sounds flat, without murmur,; sibilant rhonchus in all parts of the chest; the bowels have been acted on five times in twenty-four hours; she is passing water freely, but the quantity cannot be ascertained; to omit the calomel, and take the mixture every four hours instead of every six hours; urine, specific gravity 1020, alkaline; quantity, Oiss. daily, besides that passed in the motions.

26th.—She appears much better, and expresses herself as feeling so; she still has slight pain in the left arm, but can move the joints quite freely. The left hip, knee, and ankle are still painful, and the left ankle is still somewhat swollen, but less tender. Tongue moist, slightly brown on the dorsum; pulse 42. The bowels have been relaxed about four times in twenty-four hours since the last visit. The first sound of the heart is somewhat prolonged, and she complains of some pain in the region of the heart. To have a mustard poultice over the heart, and three ounces of wine daily. There is still some slight sibilant rhonchus. To take the mixture only thrice daily.

29th.—She has continued to improve, but still complains of some pain in the region of the heart; she has less cough than before, and no difficulty of breathing. The pains in the limbs have almost entirely gone. Pulse slow, 36. The rhonchus in the chest much less; there is a somewhat harsh but low systolic murmur heard most intensely in the course of the pulmonary artery and for some distance round, but very indistinctly. She complains of pain on the left side, but it is apparently surface tenderness. There is a systolic but no continuous murmur in the neck. Tongue still somewhat dry and furred. Bowels not relaxed. To take the mixture only twice daily, and a quinine and iron pill also twice.

November 2.—Her appearance is very much improved, and she is nearly free from pain. Tongue clean, somewhat dry; pulse 36. The systolic murmur is still audible to the left of the sternum at the level of the third cartilage; the intensity diminishes very rapidly, as you remove the stethoscope from one point. Bowels regular without the pills. To have slice of fish; to discontinue the mixture, and take the pill thrice daily. She passes about two and a-half pints of water in twenty-four hours.

5th.—Pulse 68, still sharp. She complains of some pain over the heart; the systolic murmur continues most intense at the base, but it is somewhat more diffused than before. There is a harsh systolic murmur audible in each carotid, but no continuous murmur. Tongue clean.

16th.—Her general appearance is much improved, Tongue clean and moist; pulse quiet, 64. She complains of having a troublesome cough, and expectorates a considerable quantity of colourless, glairy, and somewhat viscid fluid containing small air-bells. There is some little sibilant rhonchus in the front of the chest, and more posteriorly at the lower part of each lung. The systolic murmur is still audible in the precordia, and is apparently most intense in the course of the pulmonary artery; it is very soft in its character. She takes her food well, is improving in appearance, and gaining strength.

24th.—She is now up, and is much improved in general appearance, but is still anæmic-looking. Pulse somewhat sharp, 48 per minute. The bowels still continue acted upon three or four times daily. To have the quinine and iron mixture, with five minims of tincture of opium thrice daily The systolic murmur is still audible at the base and in the course of the pulmonary artery, not at the apex, nor to the right of the upper part of the sternum.

25th.—Presented cured, but to continue the quinine and iron pills.

December 1.—She came to the Hospital to-day to see me. I found her stronger and quite free from rheumatic pains, but complaining of a troublesome cough and some expectoration. The pulse, in the erect position, beat steadily 48 in the minute. There was a very slight systolic murmur still audible at the base of the heart.

I cannot concur with Mr. Mayo that slowness of pulse may be dependent on general exhaustion. Such a state ordinarily is attended with the very opposite character of pulse; under such circumstances, indeed, the left ventricle acts feebly, irritably, and rapidly, and the pulse is quick, small, sharp, and generally feeble. In cases in which the rate of the pulse is unusually low during convalescence from severe disease, it is not during the stage of greatest exhaustion that the rate begins to fall, but during the period of recovery, and the diminution often continues and increases, while the patient is steadily progressing towards cure, taking more food and gaining strength. There is also no just relation as to the degree

of prostration between the cases in which the pulse becomes slow and those in which it continues to beat considerably above the healthy standard. Certainly, in the instance which I have related, the rheumatic symptoms were slighter, the prostration less, and the recovery more rapid than in another case in a neighbouring bed, though the pulse of the latter patient long continued to beat upwards of 100 in the minute.

3. Closely allied to the class of cases last named are those in which the pulse is slower than in health, and sometimes much slower during the active stages of acute febrile diseases. I have seen cases of fever in which the pulse never exceeded 52, and a case of pneumonia in which it ranged between 50 and 60, without in either case there being any marked cerebral disorder, and in which, unlike the last cases, the pulse rose with the progress towards recovery.

4. It will thus be seen that slowness of pulse occurs under very different circumstances: in some cases in which the heart is extensively diseased, and in others where there is no reason to suppose that there is any defect in the structure of the organ. It must also be evident that none of the causes hitherto assigned for the peculiarity—applicable as they are only to particular classes of cases, and not to the whole of those in which it obtains—can be accepted as affording adequate explanations of the occurrence of the condition. As, also, it has been further shown, that when the slowness of pulse is combined with decided disease of the heart the structural changes are of very different characters, it follows that such changes can only be regarded as coincident, and not as essential to the production of the peculiarity, the defect being evidently one of function.

It would appear, therefore, that the undue slowness of pulse must result either from a want of proper muscular irritability or from a defect in the special nervous endowment of the heart. Whichever view we adopt, it will explain the occurrence of the peculiarity, for such defect may, and is indeed very likely to, coexist with any form of structural change in the heart, and yet may occur when the organ is entirely healthy. It would also be a condition very likely to ensue during convalescence from acute febrile diseases; for it is a well-ascertained law of the animal economy, that no organ can be the seat of prolonged over-action without its power being exhausted, and a state of debility or defective action being induced. In the cases in which the pulse is slow during the active stages of febrile diseases, the morbific cause may be supposed to act specifically upon the part in the same way as certain sedatives (I may especially instance aconite and the cinchona alkaloids, given in full and frequently repeated doses) depress the power of the organ, and greatly reduce its rate of pulsation. The condition of the blood probably affects the rate of the pulse in some cases, a slow pulse being not very uncommon in cases of chlorosis and anæmia.

That this view, which affords a probable solution of the occurrence of slowness of pulse in the different circumstances described, is further supported by the very little effect which, in some of the cases in which the condition supervenes during convalescence from acute diseases, is produced upon the rate by the exhibition of stimulants. Indeed, sometimes the condition is very persistent, continuing after the patient has gained both flesh and strength, and is able to make a considerable amount of muscular exertion. In such cases, indeed, it only subsides under the prolonged use of iron and other remedies which may act directly on the muscular structure or nerves of the heart. The young woman who was recently in St. Thomas's Hospital has at present only a pulse of 64, though she has recovered strength to such an extent as to be able to resume her usual occupations.

28th.—I have again seen this young woman; her pulse beats 60 in the minute. The murmur has entirely disappeared, but she is still chlorotic-looking.

The intermittent pulse bears a very close analogy to the slow pulse, and occurs under very similar circumstances. It may accompany different forms of valvular and other diseases of the heart, yet may be present when the organ is entirely free from disease. The explanation which has been given of the cause of the former condition is equally applicable to the latter.

GERMAN LADY-SURGEONS.—Frau Josepha Fey has just received a license to practise "lesser Surgery" in the Cologne district, on the condition that she should always act under the direction of a received Practitioner. This is the first example of such a concession being made to a woman in Germany.

MULTILOCULAR OVARIAN TUMOUR—OVARIOTOMY—OMENTAL AND UTERINE ADHESIONS—REMOVAL OF A LARGE PIECE OF OMENTUM—RECOVERY.

By JOHN CLAY, M.R.C.S.,

Professor of Midwifery, Queen's College, and formerly Obstetric Surgeon to the Queen's Hospital, Birmingham.

I WAS consulted by Mrs. C. on July 24, 1863, respecting an abdominal enlargement from which she had been suffering for several months. Dr. McVeagh, her Medical attendant, kindly furnished me with the following history of the case:—

"Mrs. C., now in her thirty-ninth year, was first attended by me on September 9, 1861, in her third confinement. Hitherto, I was told, there had been alarming post partum hæmorrhage, so I took the precaution of giving a strong dose of freshly-powdered ergot when the head was on the perineum, followed up the contraction of the uterus during the extrusion of the child, and kept the organ firmly grasped in my hand for some twenty minutes afterwards. I was gratified to find that no flooding occurred. No symptoms of a grave nature interfered with the recovery, but convalescence was tedious. Hæmorrhoids were very troublesome, and a dull sense of weight and uneasiness in the left iliac region was seldom absent for long together. She occasionally consulted me between this period and last March, when she bespoke my services, supposing herself four months pregnant. Hearing some days afterwards that 'a slight show' had appeared, and that some of the feelings were very different from those experienced in former times, I wished to institute an examination, which I did on March 22. The abdominal enlargement then corresponded with what might be expected; but from the fact of the navel not being at all prominent, the breasts being small and flabby, and especially as the most careful stethoscopic application failed to elicit either fœtal movements or placentary sounds, I confessed my doubts in the matter, and proposed waiting another month before committing myself to any opinion. On April 18 I again examined her, but with no positive result. The abdominal tumour was uniform and equable, but no further evidence of pregnancy. I could discover no change in the state of the cervix uteri to indicate such a condition. My next visit was on May 16, when I detected a firm substance, like a child's head, to the left of the navel; she said she was sure she felt movements there. I could hear only a loud friction sound; fluctuation was now very distinct over the lower belly; could it be pregnancy of a later date than she supposed, complicated with dropsy of the amnion? Possibly, I thought; but the state of the navel, mammæ, cervix uteri, and a return of 'the show,' disproved the probability. On June 8 Mr. Bicknell (my colleague) saw her with me, but we could not satisfy ourselves that pregnancy existed. I again visited her on June 23, when she had a free, sanguineous discharge, to all appearance menstrual. Fluctuation now was general over every part of the abdomen; friction sounds audible over the situation of 'the firm substance,' which felt larger and more lobulated; it had, moreover, risen rather higher up, while the finger could detect no appreciable alteration of the cervix uteri either in shape or position. I now expressed my own firm conviction that she was not with child, but suffering from ovarian disease. The patient herself admitted that she long expected as much, as her mother had died of 'dropsy of the womb.' At my request she consulted Mr. John Clay, of Birmingham, during the following week, who, without hesitation, diagnosed ovarian dropsy, for the relief of which he advised speedy operation; with what a happy result the sequel of the case will show."

The above concise detail of the phenomena manifested by the patient sufficiently describes her condition at the time I saw her. I may add that there was a small quantity of ascitic fluid in the peritoneal cavity. The os uteri was drawn up towards the symphysis pubis, but no tumour was perceptible in the recto-vaginal cul-de-sac, and it was found impossible to introduce the sound or a bougie into the uterine cavity. I had no difficulty in coming to a conclusion that the patient was suffering from a multilocular ovarian tumour, with a mass of solid matter situated at its left extremity, and I advised its speedy removal, to which the patient eventually consented. During the seven weeks previous to the operation, at intervals of ten days, she had severe attacks of menorrhagia. The last attack came on about a week before the operation.

The operation was performed in Birmingham, on Friday,

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August 28, at one o'clock p.m. Drs. Dewes and McVeagh, Messrs. Bicknell, Ebbage, Smith, Troughton, Waters, etc., being present.

The patient was speedily brought under the influence of chloroform. An incision of two and a-half inches in length was then made in the median line, and the cyst exposed. The patient was turned on her side, the cyst was seized with vulsellum forceps, tapped, and drawn gently forwards. It now become apparent that a mass, consisting of several small cysts, interfered with the extraction of the tumour. The incision was enlarged about an inch and a-half, and the cysts punctured as they came into view, and the mass was eventually brought externally. A severe hæmorrhage was now taking place from one of the punctures of one of the small cysts. The bleeding vessel could not readily be found; a clamp was, therefore, promptly placed around the pedicle of the tumour, by which the hæmorrhage was immediately and effectually arrested. An adhesion containing several large vessels, between the omentum and the cyst, was then discovered, and a portion of omentum, measuring two and a-half inches by five, was removed by means of my adhesion clam,(a) and the tumour excised above the clamp. The pedicle was about three inches broad, and united by a cartilaginous adhesion to the fundus of the uterus. The adhesion contained several large vessels; three of these were ligatured with silk, the pedicle and adhesions then transfixed and tied in four portions; the stump was left in the cavity of the abdomen, the ends of the ligatures being brought out at the lower angle of the wound. The incision was closed by three sutures of silver wire, transfixing the peritoneum, and by three superficial ones. The patient was removed to bed, and a linseed-meal poultice applied to the abdomen. The tumour proved to be a multilocular one of the left ovary, with a solid mass of four and a-half pounds, which, together with the contents of the large cyst, weighed about eighteen pounds. Reaction was established in about three quarters of an hour, and four hours after the operation the patient had an anodyne injection.

On the morning of the 29th she suffered from sickness, flatulence, and great depression of spirits. Pulse 119. These symptoms were considered to be due to an empty condition of the stomach, and she was ordered a teaspoonful of milk alternately with the same quantity of thin custard every quarter of an hour. This was well borne, and the quantity increased to two teaspoonfuls at the same intervals, and towards evening she felt much better, when she was ordered three teaspoonfuls of the same kind of food every half-hour. An anodyne injection was administered on the evening of the second day. The urine was drawn off with the catheter three times, but she passed it voluntarily twenty-eight hours after the operation. The bowels were relieved by means of injections on September 1, and all the sutures were removed on or before that time. On September 3 there was a slight sero-sanguineous and rather fetid discharge from the wound. The patient was much depressed; pulse 120; skin hot, and covered with clammy perspirations. Her condition appeared very critical, and Dr. Blunt kindly saw the patient with me. The patient was turned on her left side, and gentle pressure made over the abdomen, when several ounces of fetid purulent matter, mixed with bloody serum, were discharged through the wound, and afforded her much relief. The pulse diminished in frequency during the day, and the skin became cool. The perspirations did not recur, and she was in every respect much better, and continued to improve until the morning of the 5th of September, when she was attacked with diarrhœa. The tongue was then red and fissured, and the fauces were covered with aphthæ. There was also a good deal of tympanitis, with abdominal tenderness. Dr. Blunt kindly saw the patient again with me, and we were of opinion that the symptoms arose from too generous a diet, which, however, had been well borne. The quantity of nourishment was consequently diminished, and she was ordered bismuth, magnesia, and calumba, from which she found great benefit. From this time she improved rapidly. Two of the silk ligatures came away on the seventh and ninth days, and the ligatures of the pedicle on the twelfth, seventeenth, nineteenth, and twenty-seventh days respectively. One silk ligature remained. She left Birmingham for Kenilworth on September 24; but the last silk ligature did not come away until seven weeks after the operation. Since that time she has continued to improve in condition, and she is now stouter than she has been for many years, and in robust health.

(a) For description, see *Medical Times and Gazette*, June 21, 1862, p. 640.

Remarks.—The most notable features of this interesting case are,—

1. *The Mode of Dividing the Extensive Omental Adhesion.*—The absence of hæmorrhage from the small vessels renders this method the safest and most expeditious yet devised for dividing adhesions connected with ovarian tumours. I have used and superintended the use of the instrument in five cases, and in each instance the object has been effected with great facility, and without the slightest hæmorrhage taking place.

2. *The Stump of the Pedicle was left in the Cavity of the Abdomen.*—I am decidedly of opinion that it is much better, in the majority of cases, to adopt this procedure than to fix the pedicle between the lips of the wound: we thus avoid the dragging of the pelvic viscera, which, I have no doubt, increases the risk of peritonitis.

3. The beneficial effect of the careful administration of nourishment was well marked, and the propriety of the usual advice to give no nourishment during the first few days may, I think, be very seriously questioned.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

REPORT OF A CLINICAL LECTURE ON CASES OF TUMOURS UNDER MOLES.

(By Mr. PAGET, Surgeon to the Hospital.)

THE occurrence of melanotic cancers under or in moles or pigmentary nævi has been long known. Among the cases of this disease, having their primary seat in or near the skin, more than half have thus grown in close relation with moles. There can, therefore, be no doubt that these congenitally defective or diseased parts offer some conditions peculiarly apt for the growth of melanotic cancers. What these conditions are we cannot tell, any more than we can what those are which are sometimes induced in a part by injury. Their reality and influence are, nevertheless, certain. And with the knowledge of these facts some useful points in practice may be connected. For example, if a patient have a tumour growing in or beneath a mole, it must be considered as most likely a melanotic cancer; or, if we have an increasing outgrowth from a mole, epithelial cancer must be suspected. And if in any one, especially an elderly person, a mole begins to grow prominent, or to become more vascular or more irritable, it had better be forthwith cut out or destroyed with caustic. I have known cases in which, when moles were quickly increasing, and changing just like those that have afterwards become seats of melanotic cancers, their total destruction has been the end of all mischief. Of course, I cannot be sure that these would have become cancerous if they had been left; but I believe that, at least, some of them would, and that the rule for the destruction of all growing like them is a good one. If the formation of cancer be not quite averted by it, it may be deferred, as it seemed to be in a case I have lately seen. A patient had many pigmentary moles in his back. Five years ago one of them began to grow, and Sir Benjamin Brodie destroyed it with caustic. The scar remained sound till a few months ago, when an epithelial warty cancer began to spring up from it.

Hitherto, I believe that the only tumours for the growth of which moles have been known as offering peculiarly favourable conditions, are melanotic and, much more rarely, epithelial cancers.

But the tumour removed last Saturday is an instance of another kind, of which I have now met with three examples. The patient from whom this tumour was removed was sixty years old, healthy all his life, and very temperate, and in the site of the tumour there had been a mole as long as he could remember, and like one which he has on the back of the neck. This, however, never gave him any trouble until about nine months ago, when, with some tingling, etc., it began to enlarge, and had gradually increased in size up to the time of his admission into the Hospital.

A second case, which came under my notice a few years ago, was in a gentleman, who was unhealthy from repeated fever and other less serious maladies. He had noticed the tumour for at least four years, and it might have existed much longer, and have been overlooked, till, during these years, it

had increased more quickly than before. In this, as in the last case, there had always been a mole at the place; but it was uncertain when the change and increase took place in it.

The third case was a woman, aged fifty-nine, who was admitted into St. Bartholomew's Hospital in 1850. She was a rather feeble-looking, poor woman, high-coloured, but not robust. She had always (she said) been feeble and ailing; but in the three years before her admission into the Hospital her general health had been better than usual. Since childhood she had had several sebaceous or epidermal cysts of the scalp, but nothing of the present tumour over the sacrum had been noticed till between six and twelve months before admission.

The cutis over this tumour had, after, as well as before the removal, a distinctly brown hue, which gave it the appearance of a mole—a mere pigmentary mark, not raised above the surrounding skin.

In these three cases the tumours were so alike, that, with few additions, one description may suffice for all. Growing on the back of the trunk, they lie imbedded in the subcutaneous fat. They are roundly oval, moderately well-defined to the touch, closely connected with the structures round them, very firm, heavy, dully elastic, feeling like fibrous tumours. The skin over them is raised and thinned by their growth; adherent, but not confused with their surface; and, in addition to the dark tint of the mole spread over part of the surface, the skin has a dusky, or ruddy and glossy, tint of diffused vascularity; and enlarged veins ramify over it, or away from it. The skin, or the tumour beneath it, has been in two cases the frequent seat of hot, burning pain; in the third there was no pain.

The section of the tumour has a lowly nodular or tuberous outline, easily separable by dissection from the surrounding skin and subcutaneous tissue. The cut surface appears divided by whitish tissue into lobes and minuter lobules, much like those of secreting conglomerate glands. It is very pale, greyish white, with tinges of yellow or pale purple, smooth on its section, and glistening. It may have minute cavities filled with fluid, or one or more larger cysts, containing serous fluid or grumous matter. The substance is firm, but brittle, easily breaking into small fragments, yielding on pressure or scraping only some yellowish clear fluid, and no turbid fluid like cancer-juice even after it begins to decay.

The microscopic appearances are too various and indefinite for any useful minute description. There are appearances of glandular arrangement in minute acini, or in groups of cells of similar form. The cell structures, of which nearly the whole mass is composed, are some of them very like epithelial cancer-cells of various shapes; some, like those cells withered, or rolled up, or very small, or abortive, and without nuclei; some, more like elongated and very small cylinder-epithelium cells; some like small, thin gland-cells. With these are granular matter, bodies like free nuclei, appearances of fragments of membrane; but no more traces of fibrous or other such structures than may be referred to the partitions between the lobes, into which the whole substance of the tumour appears divided. In none of the cases has there appeared any pigment matter indicating relation to the melanotic growths more commonly found under moles.

There is sufficient in these structural characters to prove the occurrence of a form of tumour which, so far as I know, has not hitherto been described; but there is not enough of what is definite to justify the giving of a new name. More specimens must be examined before this can be safely done. Meantime, it may be held that moles are, even more than has been supposed, apt to be the seats of the growth of tumours, and that among the tumours likely to be found in or beneath them are some which are neither epithelial nor melanoid cancers, and which, probably, are not cancers at all.

One of the cases, indeed—the second—has now remained well, without any recurrence, for more than four years after the removal of the tumour—a period much longer, almost certainly, than that which would have elapsed after the removal of a deep-seated epithelial or a melanotic cancer.

THE SOUTH DEVON HOSPITAL, PLYMOUTH.

A CASE OF FEMORAL ANEURISM CURED BY COMPRESSION.

(Under the care of Mr. WHIPPLE.)

[Reported by Mr. W. RICKARD.]

HENRY P., aged thirty-two, residing at Stonehouse, was admitted into the Crimean Ward, under the care of Mr. Whipple, on July 13, 1863.

The man has a cachectic appearance, though tolerably muscular.

History.—Was a sailor for thirteen years; now a waterman. No hereditary diathesis. States that he has always enjoyed good health. Has contracted syphilis on three separate occasions, though not followed by secondary symptoms; has taken mercury at these times, but never to salivation. Has a stricture of urethra of ten years' duration, but passes a good stream of water at the present time. Three months ago he perceived a small lump, the size of a filbert, at the upper part of his thigh; had met with no blow or violent strain to account for its appearance. He continued at work for some weeks subsequently, though he noticed it gradually increasing in size. Five weeks before admission, he began to suffer pain in the thigh, running down to the knee; and this has been so severe for the last fortnight that he has been obliged to keep in bed.

On Admission.—A tumour, about the size of an orange, but of rather an ovoid shape, lies in Scarpa's space, about four inches below Poupart's ligament, in the course of the femoral vessel. Pulsation and bruit most distinct. A good deal of neuralgia extends from upper part of thigh to knee, and follows the course of the anterior crural nerves. The femoral vessels on both sides, just below Poupart's ligament, feel cordy and inelastic. Heart's sounds feeble; no murmur. Respiratory system normal.

July 15.—Mr. Whipple fixed a horse-shoe tourniquet over the femoral vessel, about two inches above the tumour, and a conical pad (composed of squares of adhesive plaster spread on thick leather) was adjusted to the seat of pressure. The instrument to be kept on for the space of one hour three times a-day, and as much pressure to be employed as the man can conveniently bear. To have the ordinary meat diet of the Hospital, with one pint of beer.

16th.—The neuralgia of the limb has increased since the application of the tourniquet, so that the sleep at night is much impaired. Half a grain of morphia.

22nd.—The limb is much swollen from thigh to knee, tense, œdematous, and tender to manipulation. No redness. Ordered to discontinue application of tourniquet for a few days. To have cold water cloths, kept continually moist, to the limb, and to take an anodyne draught when necessary. During the application of the instrument, the pressure exerted has been sufficient to diminish the pulsation and bruit in the tumour, and now, when the instrument is off, both pulsation and bruit are notably less.

29th.—The swelling and pain in the limb nearly gone. To resume the application of tourniquet.

August 1.—Since the 29th ult., the tourniquet has been applied seven or eight hours a-day, for an hour at a time; and, for the last two days, no pulsation has been perceptible while the instrument was on the limb, but it has returned on withdrawing the pressure. A bladder of ice ordered to be applied to the tumour, and the pressure to be continued.

2nd.—After the instrument was taken off last night, no pulsation or bruit was detected in the tumour, though a slight pulsation returned a few hours afterwards. There is no beat to be felt to-day, though the instrument has been off for some hours.

3rd.—No pulsation or bruit. Tumour getting more solid, but still rather soft and elastic. To leave off the pressure, and continue the ice. The latter is applied for about eight hours a-day.

6th.—No pulsation; more solidity. Continues the ice.

12th.—Tumour becomes gradually more solid; neuralgia and œdema of limb quite gone. To discontinue the ice.

31st.—General health much improved; has gained flesh since admission; sits up in the afternoon. Tumour diminishing in size; feels harder, and its oval form less definable. Limb of same appearance as opposite one. Posterior and anterior tibials of aneurismal limb can just be felt beating; those of sound limb beat rather feebly. The temperature of each limb is the same.

September 2.—Feels quite well, and has left the Hospital to-day cured.

Remarks.—In this case, the man's occupation as a sailor and waterman, where sudden and violent action of the heart, with pressure on the arterial system, takes place, and superadded to which was a deteriorated state of the tissues from syphilitic poison and mercury, gave ample cause for aneurismal disease. With regard to the treatment, the pressure exerted was sufficiently great, while the instrument was on, to

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diminish the pulsation and bruit in the aneurism, but not such as to give any great amount of pain; and when neuralgia came on severely, the tourniquet was slightly slackened. The pad employed throughout was useful, inasmuch as it prevented the pressure from causing the slightest abrasion of the skin. The duration, from the commencement of the treatment to the permanent cessation of pulsation in the tumour, occupied a period of nineteen days. The instrument was adjusted for the first time on July 15, and left off permanently on August 2, during which time seven days elapsed without any pressure being applied: probably, the obstruction to the circulation in the limb which gave rise to the œdema, and which necessitated a suspension of the treatment, did not interrupt the progress of the case, but favoured the deposit of fibrin in the walls of the aneurism, for the pulsation and bruit did not, at any rate, increase by the compression being suspended for this interval. The only disadvantage that seemed to attend the treatment by compression was the increased neuralgia of the limb occasioned, but this was to a great extent alleviated by anodynes. The advantage gained was, that a speedy cure was effected without any of the risks which occasionally attend the application of the ligature.

In Mr. Whipple's last case of femoral aneurism treated by compression, the cure was effected in thirty days.

HOSPITAL NOTES.

DIGITALIS IN CARDIAC DISEASE.

As to the action of digitalis in cardiac disease there is a great diversity of opinion. In the *Medical Times and Gazette* of December 13, 1862, we published two cases in the practice of Dr. Handfield Jones, at St. Mary's Hospital, giving his experience of the action of the drug in cases of "dilatation and enfeeblement of the heart." He remarked that digitalis acts as a "cardiac tonic." Dr. Sutton, in order to test the value of this conclusion, has prescribed tincture of digitalis in several forms of heart disease occurring amongst the out-patients of the Metropolitan Free Hospital. The following are the results of his observations:—

1. In cases of mitral regurgitation, with dilated hypertrophy and enfeebled condition of the heart, digitalis gives great relief, as in the following case:—A woman, aged 38, was so weak that she was led into the out-patients' room. Her feet and ankles were œdematous. Her pulse was very feeble and quick, but regular, and the heart's visible impulse was diffused and indistinct, and the apex was felt over the seventh rib. The first sound was inaudible at the base, and the second was of a very high pitch. There was a faint systolic bruit at the apex. Her complaint was, in her own words, "I feel so very faint." Fifteen drops of the tincture of digitalis, with the like quantity of tincture of the sesquichloride of iron, was given in an ounce of water three times a-day. Four days later she walked into the room without help, and said she felt much better. The bruit was more audible. She continued to do well.

2. In a case of chronic pericarditis, with very great effusion into the bag of the pericardium. A man, aged 30, complained of shortness of breath and great faintness. He was unable to move in bed without feeling very faint; his lower extremities were œdematous; his pulse was very feeble and quick. The only sound of the heart that could be heard was the very faint, distant-like click of the second sound at the base. ℞. Tinct. digitalis, ♏xxv.; eth. chlor., ♏xv.; tinct. ferri mur., ♏x.; ter. die. s. Five days afterwards he expressed himself relieved. Pulse regular and stronger; no perceptible difference in the extent of dulness on percussion. The urine was not increased. The digitalis was continued for six weeks. He recovered so far that he could walk about the house, but he had a relapse, and died four months later. A post-mortem confirmed the diagnosis.

3. In aortic regurgitant disease it requires to be given with great caution. In one case, while taking digitalis, the patient's pulse became irregular, increased in frequency, and he died, with well-marked symptoms of intra-cardiac blood concretion.

4. In heart disease, with dropsy, it exercises no well-marked influence over the secretion of the urine.

5. In one case of aortic obstruction, with simple hypertrophy, and a strong, heaving impulse, digitalis was given in fifteen-drop doses three times a-day for fourteen days, when the patient remarked, "I feel the action of my heart much more troublesome when I take the mixture."

6. That in a case of aortic regurgitant disease, complicated with angina pectoris, the patient having an atheromatous physiognomy, digitalis was given for fourteen days. No relief to the pain; pulse irregular.

7. Digitalis is very beneficial in cases of the following class:—Men of middle age, of the sanguine temperament, and of the neuro-vascular diathesis, as described by Professor Laycock; (a) complaining of dyspnœa on exertion; very weak; appetite normal; pulse rather quick, easily excited, and soft; heart's impulse seen in the epigastrium, feeble to the hand; first sound inaudible at the base; second sound, high pitch; at the apex, first sound faintly heard. In one such case there was albuminuria; in two, arcus senilis. All these cases improved quickly while taking tincture of digitalis and iron. That it was not the effects of the iron was proved by the fact that they all had improved after taking the mixture three or four days.

8. It may be given cautiously for six or eight weeks in fifteen-drop doses in cases of enfeebled heart with mitral disease, without producing any irregularity of the pulse, but the reverse in aortic disease.

It will be seen from the above conclusions, that Dr. Sutton confirms Dr. Handfield Jones' remarks, that the most suitable cases for the administration of digitalis are those of enfeebled heart; that digitalis "seems to be injurious in sthenic, and beneficial in asthenic cases." The same with respect to Dr. Corrigan's statement (to which Dr. Leared called the attention of the Profession), that in cases of aortic disease the effects of digitalis are injurious.

In a future number we shall report a series of cases from Dr. Sutton's practice, in further illustration of the above remarks.

We will now give the experience of another Hospital Physician, Dr. Wilks. Going round with him a few days ago, we saw at least a dozen cases of heart disease which had their origin in a former attack of rheumatism. When there was dropsy, the ordinary treatment was adopted; and when the heart was weak and irritable, iron and digitalis appeared to be Dr. Wilks' favourite combination. He said that, as no medicine could alter the changes which had occurred in the valves, the only remedies which can be of use are those which tend to preserve the power of the muscular tissue, and, therefore, the great benefit of iron in weak heart. As regarded digitalis, he had always acted on the principle, that this remedy is efficacious in proportion to the weakness and irritability of the organ, and hence the reason why some had called it a tonic. Owing, however, to the prostration produced by its long continuance, a very prevalent opinion existed that it was a remedy not available in a depressed state of the system; whereas the opposite is the fact when the heart is concerned, a reduced frequency of the pulse being a more correct test of the influence of the medicine on the circulation than the force of the arterial action. Dr. Wilks mentioned an instance where a patient was literally restored to life by its use. The case was that of a woman, who, having long suffered from disease of the heart, had a severe flooding after labour. She was apparently *in articulo mortis*; her limbs were cold; the body in a state of deathly clammy sweat; the face livid; no pulse to be felt at the wrist, and a mere fluttering to be heard when the ear was placed over the region of the heart. Brandy and ether had been given without any good effect, and, as dissolution was every moment expected, it was determined to try the effect of digitalis. Half-drachm doses of the tincture were given every hour, and after four doses a reaction had taken place, and after seven doses complete recovery had occurred. The heart, though irregular, was beating with a defined action, and the pulse could again be felt. From this time recovery took place.

It must be remembered, however, that, as Dr. Dickenson has shown, digitalis in large doses checks uterine hæmorrhage; but even if the improvement in Dr. Wilks' case were due to this, the principle is probably the same, that digitalis is a tonic, not to the heart alone, but to the (organic) muscular system generally. In Dr. Fuller's recent work on "Disease of the Chest" will be found some interesting remarks on the action of digitalis. He writes:—"It is a most valuable remedy when given in the treatment of dilatation, and is dangerous only in hypertrophy. Whenever the pulse is feeble and irregular, and more especially when, from any cause, its feebleness and irritability are temporarily increased, digitalis is, of all known remedies, the most useful."

(a) See *Medical Times and Gazette*, February 1 and 15, 1862, Lectures III. and IV.

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The above views of Dr. Handfield Jones, Dr. Wilks, Dr. Sutton, and Dr. Fuller are not yet generally received by the Profession. The exact reverse is generally held—that digitalis is valuable in hypertrophy and dangerous in dilatation. One of our most distinguished authorities on diseases of the heart, Dr. Walshe, writes:—"If the power of the ventricles be seriously impaired, digitalis cannot be given without excessive risk, and had better be altogether avoided."

We require an extensive series of cases with careful observations as to the valves damaged, and as to the result, as regards regurgitation and obstruction (as aortic obstruction, for instance, is of infinitely less consequence than aortic regurgitation), but, more than all, as to the condition of the heart itself as regards hypertrophy, dilatation, and muscular power.

IBERIS AMARA, A NEW PURGATIVE.

We observed Dr. Wilks use a purgative which was new to us, the *Iberis amara*, or candy tuft-seed. He had been recommended to its use by Mr. Stillwell, of Epsom, who said that it had been a favourite purgative medicine with him during the whole of a long practice, given either alone or combined with jalap powder. The seeds when bruised are oily and acrid, and, when made into a pill of four or five grains, act as a good purge. Dr. Wilks said he had found it answer its intended purpose; but as there was no want of aperient medicines in the Pharmacopœia, he saw no reason to adopt it in preference to those in ordinary use. A strong Irishman took three grains with no effect, but ten grains purged him two or three times. A man who was habitually constipated, and who had been taking magnesia mixture daily with only slight effect, was ordered three grains three times a-day; he took five pills, and was purged violently several times. A lad with cardiac dropsy took five grains, and in a few hours it acted twice. In some cases it produced sickness. In the case of a man with renal dropsy ten grains were given. In two hours he was sick, and in seven hours he was well purged. It was repeated, but without the sickness. In all about twenty cases were treated, and its purgative action well tested.

THE CALABAR BEAN—ITS INTERNAL ADMINISTRATION.

The Calabar Bean, for the introduction of which into Medical practice we are indebted to Dr. Fraser and Dr. Robertson, is now much used as a local application to the eye. It is antagonistic to atropine, not only in its effects on the iris, but also on the ciliary muscle; and it is its power over the latter—its power of restoring accommodation when it has been lost by any cause—as, for instance, from paralysis, or from the previous use of atropine for ophthalmoscopic examination—which renders it so useful to ophthalmic Surgeons. It has now also found its way into our general Hospitals, as a remedy in certain nervous affections. There is a very interesting case of chorea, in a girl aged 11 years, now being treated in University College Hospital by this drug. Dr. Harley, under whose care the patient is, began by giving one grain of the powdered bean for a dose, which was gradually increased to three grains three times a-day—(nine grains in the twenty-four hours). It was then further increased to four and a-half grains for a dose; and latterly the patient has been actually taking six grains at one time, but in this case only once a-day. Careful notes have been kept by the Physician's assistant; and, as we purpose giving them in detail, we may at present merely mention that the patient has much improved under the treatment. The only disagreeable effects that have followed the use of this remedy have been the occasional occurrence of brief attacks of colic, and once or twice slight vomiting. At first the remedy caused contraction of the pupils, and greatly accelerated the heart's action. The pulse was often 144, and on a few occasions 160 per minute. These effects, however, gradually became less apparent, as the patient gained in strength, and the system got accustomed to the remedy. The powdered bean, as employed by Dr. Harley, forms an elegant preparation, and has the great advantage of being almost tasteless. The dose for an adult, Dr. Harley says, is from three to six grains.

SYRUPUS RHAMNI IN CONSTIPATION.

At one time buckthorn was much used as a cathartic, but it has lately been chiefly used as a purgative for dogs by Veterinary Surgeons. Dr. Neligan says that the operation of the juice of the berries is very severe, and that it is "frequently accompanied by severe tormina, thirst, and distressing nausea." But Dr. Handfield Jones says that he has used it recently, and finds it an excellent purgative, and he states that it has none of the faults above mentioned in any marked degree. He gives, to adults, one or two drachms of the syrup, and a drachm of the potassio-tartrate of soda. This is, he thinks, quite as good a combination as black draught, and is not nasty; this is a great gain, as black draught is to most people a horrible mess. The syrup is the only officinal preparation, and the dose is stated by Neligan to be ʒss. to ʒj. The dose prescribed by Dr. Jones is much smaller, but he finds it quite effectual in obstinate constipation, especially in habitual constipation.

THE TERCHLORIDE OF CARBON.

Mr. Bryant informs us that at Guy's Hospital the terchloride of carbon has been employed for many years, and that it was a very favourite remedy of the late Mr. Aston Key, tracing its employment back, therefore, at least fifteen years. As a lotion, it has acquired considerable value, and may be looked upon as a stimulant, and in a measure as a disinfectant. In sloughing and fetid ulcers it is of great use. It may be used in the indolent and weak ulcer with general advantage. The usual strength of the lotion is from mxx. to ʒss. of the drug to an ounce of water. It has an agreeable odour and rapid effect. In cases of gangrene, and in sloughing phagedena, it may be employed in its concentrated form with some confidence, a wound thus affected rapidly taking on a more healthy aspect. Upon the whole, it is a very valuable local stimulant, and in Mr. Bryant's estimation ranks above most of the drugs of that class now in use.

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Medical Times and Gazette.

SATURDAY, JANUARY 16.

CONFIDENCE.

This is a phrase much more often in the mouth of patients and their friends than in that of Medical men. The very frequency of its iteration leads us sometimes into slight irritation on its occurrence. And yet there can be no doubt that it represents a real and important element in our Professional responsibilities; for without it, our art is shorn of half its power, and our very drugs seem treacherously to lose their force. Here, however, we do not intend to dilate upon the influence of mind on body, of imagination on structure and function, but to say a word or two such as may be supplemented by our reader's own experience and reflection.

Our standing as an aggregate and corporate body in public esteem and confidence must obviously control to a degree that of each single man. It is unnecessary to show that this varies with every day; rising on the news of some great discovery or some noble act of devotion, and falling again with the publication of some erroneous opinion, with some instance of dogmatic, unpractical theorising, or with the scandal of some damaging exposure before a legal tribunal.

But our duties being essentially personal, it is usually in a private and informal manner that we are canvassed; and hence the attribute of confidence, while it is withheld from one, is freely granted to another purely as a result of special circumstances and individual appreciation. Many elements go to form

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the desirable result: mere age is with a large, though probably not the more intellectual portion of the community, of itself a ground of trust. Into this wide and delicate subject it would require time to enter. Medicine is undeniably an art which takes long to learn from its very magnitude; but familiarity is not necessarily experience, and modern diagnosis is not always to be fulfilled by the dimmed eye, the dull ear, and the trembling hand. Social respectability has a strong and legitimate influence, especially in this country, though, perhaps, it may be in some quarters exaggerated, and a kind of tyranny established which obliges its victims to live a life of shams, of expense, and of consequent worldly anxiety. Bnt after these and a few similar postulates, much lies in our own hands; and for this reason it is well now and then to give a deliberate moment of thought to the subject, and by putting ourselves in the position of our own friends, relatives and patients, to neutralise the self-concentration which must needs follow earnest labour in one field of occupation. Each man may seek his own models. Not long ago we ourselves drew attention to the vast power and confidence attained by Father Mathew in a direction not alien from the Physician's function, and parallel cases will occur to every one.

Or, in a lighter mood, we may turn to the stage, and there behold ourselves *veluti in speculo*. The stage undoubtedly "holds the mirror up to nature" in the relations of Doctor and patient, as well as in other circumstances of life. It is true, and probably satisfactory, that Professional men do not act in the demonstrative melo-dramatic manner with which they are credited in fiction, any more than they are open to the gross sarcasms with which they were assailed by Molière. But it is instructive to see ourselves reflected, even in the sketchy and limited picture of a representative microcosm; and we may gain a hint in conduct from one who, like the dramatist, must needs approximate his fabrications to truth and probability. As a rule, we there figure in an honourable manner. Perhaps popular prejudice as to law and lawyers shares with the fitness of their business for sensational treatment, in producing the frequent scenes of villany or violation of duty, brought about by their agency. The family Doctor may witness the will, and know its contents, but he can hardly have so active an interest in them as to falsify, conceal, or substitute; and among many contrivances for wronging legitimate heirs, a fraudulent accoucheur has not often been turned to account, though the scene from which he is inseparable has long figured to the ear, if not to the eye, in the drama of Terence, so dear to old Westminsters and their friends.

As a rule, the stage Doctor is upright, calm, shrewd, observant, and despotic; even kings tremble before him, and no one shares a tittle of his authority. He speaks in a judicial tone, proceeds to tremendous operative measures on the spot, and directs potent remedies with the accuracy of the Armstrong gun. His diagnosis is instant, his prognosis is so precise and far-seeing as slightly to discourage less-gifted brethren in the audience; but whatever happens, he usually comes well out of the affair. It is past denial that all the virtues here exhibited are just those which, in real life, gain confidence; and as they honourably ensure success, so they should be sedulously cultivated.

There is another aspect in which the same character has been represented by the greatest of dramatists, to us infinitely more touching and instructive. When Lady Macbeth comes on the stage asleep, but brooding over her crime; torn with remorse for an evil deed beyond remedy, the physician is powerless; and, making no attempt at display of useless learning, or at meddlesome interference, he calmly, but sadly, watches out the working of retribution. Little as he contributes to the action of the play, he seems to us a peculiarly fit audience for the dreadful spectacle of crime self-punished.

We hope it may be our lot to see on the stage few characters taken from among ourselves, and marked by vanity, self-interest, or charlatanism; still less do we desire to meet with such hindrances to confidence in ordinary life. Many of the rubs which gall men in practice may really be due to these and like causes. On the other hand, how could his influence, and the confidence reposed in him, fail to be increased, who should justify the trust by a spirit like that of old Ambrose Paré? This great Surgeon, when his friends congratulated him on a cure, answered—"Je le pansai; Dieu le guérit."

RAILWAY SURGEONS.

A TRIAL has lately been compromised, to the deep regret of the lawyers. It would have afforded them materials for many an argument on the rights of "infants," and plenty of fun withal. A Medical man would have been put into the witness-box, and his cross-examination would have been a treat. Do you ask why? Was it a case of unset fracture or of unreduced dislocation? Was it about some poor woman who had died after delivery of some disease sworn to have followed upon something which the accoucheur either did or did not? Was it that a widow, who loved to drown grief and travelling gout in brandy, had been hindered from throwing herself out of window? or that a half-mad tradesman had been restrained from beating his wife? No! there was luckily no question of Medical theory or practice at stake: the fun would have been got, and the odium affixed, through transactions out of and beyond the duty of the Medical man, which we would entreat our brethren to leave alone for the future.

As we are concerned only with principles, we need not give names or dates, and may tell the story thus:—After a certain notorious railway smash, the company, as usual, employed their own Surgeon to attend the sufferers. (We may say, by-the-bye, as a bit of Professional etiquette, that no sufferer ought to be debarred the services of any other Medical man whom he chooses to see;—certainly, the railway Surgeon should see the case on behalf of the company, but his functions need go no further, unless the patient choose; otherwise, he would have undue advantages over his brethren.) One sufferer there was, a girl of eighteen, who seemed not to have sustained any serious hurt, and (so the story is told us), at the end of a fortnight or three weeks, the Surgeon employed by the railway company said to her father, "Well, now the patient is so nearly well, suppose we settle." Whereupon, a calculation was made: a silk dress was valued at so much, a bonnet and parasol, and other articles of feminine attire, at so much more, and a certain sum added for the bodily injury. It amounted to £25, which was paid on the spot; and (as we are told) a most elaborate receipt was drawn up by the Surgeon and signed by the father, acknowledging the receipt of the money of and from the railway company in full of all demands from himself his heirs executors administrators and assigns to all eternity. So the thing seemed to be settled. But the poor girl after a few weeks became more ill, and signs of inward mischief began to show themselves. In fact, two eminent Professors of Medicine have pronounced her to be labouring under aneurism of the aorta, and she, who once was a lively, active girl, who could swim twice round a large swimming-bath, is now condemned to a life of inaction, with the fear or almost certainty of early death. The father, finding the real state of the case, began to think that he had been somewhat hasty in his settlement with the railway company; so he applied to an attorney, who was not in the least dismayed by the elaborate receipt in full which had been procured by the Surgeon, but fired off a writ, and brought an action for damages £2000, and, when the case was ready for trial, accepted £700 with costs, which the company were glad to pay by way of compromise.

Now, we have not a word to say against the Surgeon, so far as he acted surgically. Not only no question was raised of his Surgical conduct, but it is admitted that he acted as a man of skill and humanity in his Profession. Doubtless, also, whilst

eager to settle the case on behalf of his clients, the company, he was not conscious of anything unfair to the girl or her father, nor ought he to be accused of it. The injury was slight, and £25 would probably have appeared sufficient to any one at the time. Still, we hold that a Surgeon ought, for the sake of his own Profession, when employed surgically, to keep out of transactions which belong to the attorney or agent. If he meddle with them, he is sure to commit himself, and our entire fraternity with him. Medical witnesses seldom do us credit, even when speaking on Medical matters; we shiver at Medical trials; but what will become of us if railway Surgeons are to get themselves, and drag us, into false positions like this?

Suppose the case had gone to trial, and that the company had set up the receipt in full, procured by the Surgeon, and on this ground had resisted any further claim? What lawyers say is this: the case would have been pre-eminently a sensation case. A sensation sergeant (since gone to a better place) is said to have been retained. With a cambric handkerchief to wipe the forensic tears from his eyes, and with a voice faltering with emotion, how he would have pointed to the plaintiff—said to be a remarkably pretty girl, who of course would be sitting, in half-mourning, in court with her pretty sisters—how he would have described her young life nipped in the bud,—her girlish aspirations blighted,—the seeds of the fell destroyer planted in her palpitating bosom, and all her affectionate family watching her every movement with breathless excitement, awaiting the moment when her fragile structure should give way, and a sudden, horrible fate carry her almost alive into the tomb! And, the learned sergeant might continue, whence came the mean and insulting proposition to barter the life of this exquisite creature for £25? Can it be that a member of an honourable, a learned, a humane Profession can have so far forgotten himself as to frame, with cold and selfish fingers, this miserable receipt in full, and that, after gaining the confidence of this afflicted family by a specious performance of the duties of his benevolent Profession, he, *concealing the worst and hidden injury*, could extort a signature to such a document from the unsuspicious and unhappy father? We will not stop to speculate what effect such venomous eloquence might have had on a British jury, nor what amount of obloquy might have been affixed on the Surgeon. We only hear that the plaintiff's attorney, in looking back on the case, thinks the company got off too cheaply; whilst we feel more strongly than ever the expediency of keeping members of our Profession out of money transactions, which are no business of theirs, and which are sure, some day, to get them into false positions, and taint them with the most odious and undeserved imputations.

THE WEEK.

CONFINEMENT OF H.R.H. THE PRINCESS OF WALES.—BIRTH OF A PRINCE.

Of course, we must not, even to gratify the loyal curiosity of our readers, trespass on the sanctity of that privacy to which such events are entitled in any station of life. Yet we may be allowed to mention the following particulars, which may be relied on as authentic.

Her Royal Highness's confinement was expected to take place early in March, and every arrangement had been made for its taking place in London.

Two or three days before the event the Princess had suffered from a slight cold, for which she was attended by Mr. Brown, of Windsor.

Early in the afternoon of the 8th she was slightly indisposed, but the signs of approaching labour were not then evident. As soon, however, as Her Royal Highness became more indisposed, Mr. Brown, of Windsor, was sent for, and Dr. Sieveking, the Prince's Physician, from London. Soon afterwards, it being then evident that the symptoms indicated an approaching confinement, a telegram was dispatched to Dr. Arthur Farre, who immediately started by a special train for Frogmore. So rapid, however, had been the labour, that on his arrival the infant was already born.

The confinement, though so speedy, was of the most favourable description, and both mother and child have been going on without a shade of illness or discomfort.

The statement in the newspapers, that the baby, although a seven months' child, weighs nine pounds, our readers will take for what it is worth. For the information of any of the gentler sex who may honour our columns, we may add, that the baby is pretty, and like its father, *and has never yet been weighed.*

The size corresponds very accurately with the calculation made by the Princess's Physicians as to the period of gestation.

Sir C. Locock and Dr. Gream were also summoned. The first bulletin was signed by Dr. Sieveking and Mr. Brown; the subsequent ones by Dr. Arthur Farre.

Were politics within the scope of this Journal, we might find enough matter for rejoicing in a comparison between existing circumstances and those under which the children of the two last Princes of Wales of the Hanoverian line have been ushered into the world. But we will content ourselves with the reflection that, although history furnishes numerous examples of royal personages cradled in the ease and luxury of a court, surrounded with all that can procure happiness or excite admiration, belying early promise, and living lives which end in premature physical and mental decay, no such fate is to be feared for the Prince of Wales. The deplorable loss which his family and the nation sustained so lately has devolved on him such duties and obligations—the care and support of the Sovereign—the promotion of all those great objects of public good which his father had at heart—and the responsibilities and happiness of an early marriage of affection—that there is little fear that the long life which he is, we hope, destined to spend in the second place in this great Empire, will be passed in ignoble sloth, or sacrificed to enervating or trifling pursuits. The Prince and Princess have already won golden opinions from all. In them the nation sees the representatives of the virtues and good sense of Victoria and Albert, and it hails the birth of their son as a pledge vouchsafed by Heaven, that its blessings descend to the third and fourth generation. In the present aspect of political affairs, it is, perhaps, too much to hope that the birth of the infant now cradled at Frogmore, representing, as he does by blood and lineage, the two contending European interests on whom all eyes are turned, may be received abroad as a signal for peaceful counsels and mutual concessions. But, at least, we may congratulate ourselves, that in our own nation, in our Royal Family, in our people, in our institutions, the two ethnic elements—the Norse and the Teuton—which have played the first part in modern history, which have eclipsed all others in government, in arts, in sciences, are indissolubly united, and can never be opposed. To us belongs the Norman, from whom the ruling classes, not only of England, but of nearly the whole of Europe, are derived. Ours, also, is the Saxon, whose race appears destined to repeople and to regenerate the world. This last born of our princes is, by lineage as well as by birth, a true representative of the English people!

THE NEW PRESIDENT OF THE COUNCIL.

Pursuant to notice, the General Medical Council assembled at the Registration-office, Soho-square, on the 13th inst., for the election of a president in the room of the late much-lamented Mr. Green. Dr. Stokes, on the unanimous request of the members present, took the chair. The newly-appointed members—Dr. Parkes, Dr. Quain, and Mr. Romsey, nominated by the Queen in Council, and Dr. Paget, representing the University of Cambridge—were introduced, and took their seats. A vote of sympathy and condolence with the family of the late President was adopted. A lengthened discussion

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took place as to whether it was desirable or not to elect as president some distinguished non-Medical gentleman who had taken a greater or less interest in Medical politics, and whose rank and position in relation to Government might promote the objects of the Council in connexion with legislation, etc.; and, secondly, as to whether it was necessary that the president should be resident in London. We learn that the conclusions of the Council amounted to this, that, if it were desirable to select a non-Medical president, this was not at the present moment practicable; and secondly, that, if it were practicable to elect a non-resident Medical president, it was not desirable in connection with the business details of the Council. Dr. Burrows was then nominated, and, as we anticipated last week, was elected President for the usual period. Of Dr. Burrows' election we can but say that it will please all who wished for the best possible man. The election of Dr. Burrows will require the College of Physicians to send a representative to the Council. Several names have been already mentioned. The office of joint treasurer to the Council (with Dr. Sharpey), also vacated by Dr. Burrows' election as President, was filled up by the appointment of Dr. Quain. The Council, having reappointed the Executive Committee, adjourned until April.

ELECTION OF EXAMINER TO THE ROYAL COLLEGE OF SURGEONS.

We learn that a special meeting of the Council of the College of Surgeons is to be holden, on Monday, the 25th inst., to elect a successor to the late Mr. Green in the Court of Examiners of the College, As we have already stated, there are said to be three parties, each with a favourite candidate. No. 1 supports Mr. Gulliver, the senior candidate; No. 2, asserting that no one save a London Hospital Surgeon is worthy of the post, proposes Professor Partridge; No. 3 also affirms the necessity of electing a London Hospital Surgeon, but proposes to run Mr. Hilton, of Guy's Hospital, against Mr. Partridge.

Now, we need scarcely say that we have not one word to allege against the competency of either of the two latter gentlemen. Mr. Partridge's admirable method of teaching anatomy, and his long experience as a Professor, and Mr. Hilton's sterling common sense and practical knowledge of Surgery, as shown by his unique and valuable lectures on Rest and Pain, stamp each of these gentlemen, in his turn, with the seal of Professional approbation. But, in the present instance, to elect either of them would be a gross injustice to Mr. Gulliver, the senior candidate, and a heavy blow at the best interests of our Profession in its tenderest point. Mr. Gulliver has earned a world-wide reputation not only as a physiologist, but as an original thinker and worker at the history, the facts, and the philosophy of physiology. His lectures show John Hunter in by far a truer light than did those of his predecessors. Without dimming his great reputation, he vindicated the merits of others whose labours were not less meritorious, so far as they went, though they have attracted less Professional idolatry. If Mr. Gulliver be not elected, it will be a sign which the rising generation will not be slow to interpret. It will say to them,—"Do not waste your time on science; do not spend your days and nights in researches which ennoble us as philosophers, and which will have their fruits in improved practice for generations to come: but play a close game; win tricks when you can; get a snug Hospital appointment; seek practice and money, and let science go to the winds." Mr. Gulliver, besides, has not lived the life of a hermit or closet philosopher,—he has been an Army Surgeon in most parts of the world, and has been for many years in Surgical charge of the General Hospital at Fort Pitt. We are sure that the friends of the junior candidates would decline to assert that Surgery cannot flourish out of London, nor yet deny that it is highly desirable to have in the Court of Examiners representatives of every branch of science and practice. Students ought to be tested by the ablest physiologists, the most dexterous anatomists, the most brilliant operators, and by the most shrewd and successful practitioner in maladies that require *unbloody* treatment only; more especially is it right that one who is versed in all the modifications of Surgery requisite for military practice should have a share in the examination. To pass over Mr. Gulliver will be a contumely to the whole body of Surgeons and physiologists who do not live in London, and will add a last bit of degradation to the Army Medical Department.

ST. BARTHOLOMEW'S HOSPITAL.

The Governors of St. Bartholomew's Hospital have, at their last court, elected Dr. Burrows, Honorary Consulting-Physician, in recognition of his thirty years' service as Physician and Assistant-Physician to the Hospital. This election is the more complimentary, inasmuch as no previous Physician on his retirement has had such a gratifying mark of approbation conferred upon him.

THE RESPITE OF TOWNLEY.

The letter of Sir George Grey to the protesting magistrates of the county of Derby will have been so generally read that we need not reproduce it. It clearly shows that, however justly the Home Secretary's antecedents had laid him open to the suspicion of having abused, or at least weakly consented to exercise, the Royal perogative of mercy, in this instance at any rate he had no alternative but to carry out an existing statute. That there should be an Act of Parliament which places the power of setting aside the verdict of a jury in the hands of any two justices of the peace and any two Medical men, constituting them a secret tribunal whose authority overrides that of the Law and the Crown, has excited as much indignation as surprise; but, as such an Act does exist, Sir George Grey had only a formal and executive voice in the matter; and, however the certificate of Townley's insanity may have been obtained, being obtained, he was legally and of necessity respited.

The bright spot in the letter is the information, that a poor and undefended prisoner, convicted of wilful murder and sentenced to death in 1862, obtained the benefit of the same Act at the instance of the judge who tried him.

We think, however, that it will cause no little astonishment and animadversion that, since the existence of this most preposterous enactment was known to Her Majesty's advisers in 1862, no attempt was made to amend it during the last session of Parliament.

GOVERNMENT TREATMENT OF THE MEDICAL OFFICERS OF THE BOMBAY MARINE.

Assertion of personal claims to position and social precedence is always a disagreeable thing; and most men would rather waive their right to a trifling distinction, than condescend to demand it from persons who concede it with reluctance. But there are cases when the assertion of social right, even in trifles, becomes a duty; and in such a category must be placed the instance of a man who, in a public position, represents a Profession, and whose social rank and status are adjudged to him solely on Professional, and not on personal, grounds. In such a case it becomes his duty to see that the dignity of his calling suffers no dishonour in his person, and at whatever sacrifice of personal considerations to maintain his claim on those punctilios of respect which he might willingly forego were his own honour alone concerned. The representatives of Medicine in the public services have no alternative but to be guided by this rule, and they would be wanting in loyalty to their calling did they tamely put up with affronts and indignities offered to them as Medical officers, which personally they could well afford to despise. Our attention has lately been called to a correspondence between the uncovenanted Surgeons of the Bombay Medical Service serving on board vessels of the Bombay Marine and the Government authorities, which we think tells very much

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to the honour of the former, and very much to the disgrace of the latter. It is first to be observed, that the vessels of the Bombay Marine are to all intents and purposes Government passenger vessels, and that their officers are not military or naval officers in the ordinary sense of the latter term, but simply civilians. It is the duty of the Medical officers of these ships to render Professional services to the passengers, and it is impossible that a proper relation can subsist between them if the patient find his Medical attendant systematically placed in an inferior position, and denied the right of social intercourse with him on a footing of perfect equality. The correspondence referred to commences with a memorial to Sir Bartle Frere, the Governor of Bombay, signed by three of the uncovenanted Surgeons of the Bombay Marine. The memorial shows that on board the ships of this service there are two messes, in the first of which the commander of the ship and the passengers are associated, and in the second the inferior officers, and it is to the second that the Medical officers have been informed they belong. We have not space to state categorically the reasons which the memorialists urge against this piece of petty insult. It is sufficient to say that the memorialists show, that in the packets of the Indian navy, in the army, and in various other services, no such degradation is put upon the Profession of Medicine, and that the class of inferior officers who assemble at the second mess is not such as would allow the Medical officer to introduce his friends to their society. As the vessels of the Bombay Marine are constantly employed in carrying military officers, there is frequently the anomaly of the army Surgeon dining at the commander's table, whilst the Surgeon of the ship is degraded to the second. The remainder of the correspondence, which we publish *in extenso*, will put our readers in possession of the fate of the memorial and of the subsequent conduct of the Medical officers. The latter will command the full approval of the Profession, who will know how to appreciate the choice made by these gentlemen between emolument and the honour of their calling. We only regret that it is deemed inexpedient that the names of these gentlemen should be at present made public.

"Measing.
"Surgeons, Bombay Marine.

"Marine Department, "Bombay Castle,
No. 1111. 21st October, 1863.

"Letter from the Superintendent of Marine, No. 286, dated 8th September, 1863, submits a memorial from the Surgeons of the Bombay Marine, praying that they may be allowed to mess with commanders on board. Captain Young considers that, for the maintenance of discipline, the commanders should live apart from the rest of their officers.

"Resolution.—Although his Excellency in Council does not fully share Captain Young's objection, yet he thinks it best to leave the matter to be decided according to the judgment of the Superintendent of Marine.

(Signed) "W. F. MARRIOTT,
Lieutenant-Colonel, Secretary to Government.

"To the Superintendent of Marine."

"Memo., "Superintendent's Office, Bombay,
No. 1935 of 1863. 22nd October, 1863.

"Forwarded to the commanders of the steam-vessels *Zenobia*, *Coromandel*, and *Berenice*, for communication to the Surgeons of their respective vessels, with reference to their memorial, dated 1st September last.

(Signed) "J. W. YOUNG,
Superintendent of Marine."

"From Uncovenanted Surgeons, &c., &c.,
"To Lieutenant-Colonel W. F. Marriott, Secretary to Government.
"Bombay, 24th October, 1863.

"Sir,—We have the honour to request the favour of your bringing to the notice of Government, in connection with its Resolution No. 1111 of 1863 in the Marine Department, dated 21st October, 1863, signed by you, which was communicated to us yesterday by order of Captain Young, C.B., late I.N., Superintendent of Marine, an unintentional error in the wording of the preamble to that resolution, which causes us to appear to have put a slight on the Medical Profession. The words to which we refer are these:—'Memorial from the Surgeons of the Bombay Marine, praying that they may be allowed to mess with commanders on board.' The object of the memorial referred to was, not to pray that we might be allowed to mess with the commanders, but to state our belief in the right of members of the Medical Profession, as such, to perfect equality in all social relations with the commanders, which relations are as prominent as any other in a civil service, and to pray his Excellency the Governor in Council to order that right to be acknowledged and conceded.

"2. Did this matter affect us only personally, the deep sense we have of our own unworthiness would deter us from taking any notice of it; but as it refers to us in our professional and official capacity, we feel bound, by regard for the honour of our Profession, to call attention to it. When we are soliciting a favour f-om Government we trust we show, and shall always show, the humility which becomes us; but we feel that any exhibition of false humility, when speaking of our Profession, for which we will not accept a secondary position, would deserve to be treated with contempt, as an evidence of pusillanimity. "We have, &c.

(Signed) "———, ———, &c., &c."

"From Uncovenanted Surgeon ———, Bombay Medical Service, &c., &c.,
"To Captain J. W. Young, C.B., late Indian Navy, Superintendent of Marine.

"Bombay Marine Steamer *Zenobia*, 23rd October, 1863.

"Sir,—I deeply regret that the decision of the Government of Bombay, as conveyed in Resolution No. 1111 of 1863 in the Marine Department, under date October 21, 1863, with reference to the memorial presented by the Medical Officers of the Bombay Marine on the subject of their position in that service, leaves me no alternative, consistent with the honour of my profession, but to request the favour of being relieved from further service in that department.

"2. In that memorial, the view taken by the Medical officers serving in the Bombay Marine of the subject in question is so fully detailed, that I need not do more than state, that the reasons assigned in paras. 8, 9, 11, 12, and 14 of that document are those which chiefly influence, and, indeed, compel me to take the present step, which, under other circumstances, I should be most unwilling to do at present.

"3. It will hardly be considered out of place for me to reiterate what is already implied in the memorial, that I consider that were I, as a member of the Medical Profession, to permit myself to be consigned, in a civil service, to a position inferior to that of any of my equals, but more especially of my patients, I should be allowing that honourable Profession to be degraded in my person.

"4. As this is my only reason for asking to be relieved from the Bombay Marine, and as I believe such an one to exist in that department only of all the departments under the Bombay Government, I am perfectly ready to accept thankfully an appointment in any other department to which an uncovenanted Surgeon of the Bombay Medical service is eligible.

"5. Since, under existing circumstances, my position in the Bombay Marine is anomalous and peculiarly disagreeable, it will probably not be considered an unreasonable request that as early an answer as possible may be made to this application.

"6. May I solicit the favour of this letter being submitted *verbatim* to Government? "I have, &c.

(Signed) "———, &c., &c."

"Squadron Order, No. 518.
"Office of the Superintendent of Marine, Bombay, 7th November, 1863.

"Surgeons ———, of the *Zenobia*, and ———, of the *Coromandel*, having been permitted to resign the service, are to be discharged to the shore from this date.

(Signed) "J. W. YOUNG,
Superintendent of Marine."

FROM ABROAD—REVACCINATION IN THE PRUSSIAN ARMY IN 1862—PROFESSOR VIRCHOW'S EDITORIAL DIFFICULTIES—THE ACADEMIE DE MÉDECINE—RETIREMENT OF M. RAYER.

THE Prussian Government has published its report on the results of revaccination in the army during 1862. From this it appears that 19,545 individuals were vaccinated or revaccinated during the year. Of these, 16,669 exhibited distinct cicatrices from former vaccinations, 1852 indistinct traces, and 1024 no traces at all. The present vaccination pursued a

regular course in 12,272 of the 19,669 soldiers vaccinated, and an irregular course in 2738, while in 4534 it was followed by no results. On these last being again vaccinated, success attended it in 1324. Among all the soldiers of the Prussian army on whom revaccination had been successfully performed, either during or before 1862, 4 became the subjects of varicella, 10 of varioloid, and 1 of true variola. Besides these 15 cases, there occurred also 2 cases of varicella and 3 of varioloid among soldiers who had not been revaccinated, and the same number in others who had been revaccinated without result, making altogether 25 cases, viz., 8 of varicella, 16 of varioloid, and 1 of variola. The case of variola occurred in an artilleryman, aged 57, and proved fatal, being the only example which has been met with in the Prussian army of fatal variola after successful revaccination.

In the last number of his *Archiv*. Professor Virchow pours forth some editorial groans, with which all those engaged in the conduct of periodical publications cannot but sympathise. The number and the extent of the contributions sent to his journal are, he says, ever on the increase, and, notwithstanding that its size has been augmented for their reception, room cannot be found. Manuscripts delivered a year since have not yet found their way to the printer's hands, notwithstanding that the editor has postponed his own contributions in their favour. To enlarge the journal still further would be to put it beyond the purse of many of its present subscribers, and the remedy for the evil complained of must be sought at the hands of the contributors themselves. The necessity is, therefore, urged upon them of compressing their articles as much as possible, by the omission of all details that can be dispensed with. This, says the Professor, is a more reasonable request than it would have been some years since. Then, it seemed indispensable, that as many cases and experiments should be furnished as possible, as the only means of proving that a satisfactory method of observation and investigation was being pursued; but, at the present day, when the better methods of the new school have become firmly established and widely spread, it is, in the face of the colossal accumulations of material which take place, of pressing necessity that a more compressed form of exposition should be adopted. Not content with this complimentary reason for brevity, the editor threatens the authors of lengthy contributions with the priority of their more concise competitors; while, if their communications go beyond what many may think the excessive length of three sheets, these must take their chance of delay, piecemeal production, or even exclusion. Professor Virchow has done a good deal in the reform way as regards Medical doctrines, and is trying his hand in political life; but we venture to think, that if he can succeed in bringing the above injunctions into fashion, many a perplexed editor and wearied reader will regard this as one of his principal claims to admiration.

M. Grisolle, the new President of the Academy of Medicine, opened the new session of this body with some observations which apply to learned societies and academies in general:

"Continually inspired," he says, "by that idea of progress which created scientific academies, you always give to rigorous observation and the experimental method, the philosophy of facts (to employ the happy expression of Fontanelle), that pre-eminence which has for ever rendered impossible the return of the scholastic system and sterile discussions, and has imparted to contemporary science that progressive course which it has uninterruptedly pursued since Bichat, and which no effort can in future even slacken. Assured may we be of the future when we see around us that vigorous and valiant band of labourers animated by one common ardour, and penetrated by the same desire—the necessity, if anything durable is to be established, of maintaining the rigorous observation of facts as the base of reasoning. This Academy has well understood her mission, which, indeed, is that of all learned bodies. Their function, it has been well said, is not to make discoveries, but to recognise and consecrate them, and to sometimes avert and direct the spirit of innovation, in order to preserve it from its vagaries, and thus redouble its energies by hindering its wandering and preventing those violent shocks and sudden invasions of systems, which, if not always useless, it must be admitted, most frequently, nevertheless, retard regular progress by the ruins which they accumulate around them. Besides this great guardianship which you exercise, you also powerfully aid in the advancement of science by the distinctions you confer, and the number of which you are endeavouring to increase, penetrated as you are by that idea of Cuvier, that nothing is so suited to the multiplication of labours as the public marks of esteem which they receive."

At this meeting of the Academy, Professor Stromeyer, of Hanover, was elected a Foreign Associate, his competitors being Professor Porta, of Pavia, and Professor Chelius, of Heidelberg. The discussion on the Origin of the Vaccine Virus was also resumed, in an able discourse, by M. Guerin, in refutation of the paradoxical statements made by M. Depaul, who, it will be recollected (*Medical Times and Gazette*, Dec. 12, p. 620), led away by the similarity of variola as observed in the horse and man, and its communicability to the cow, came to the conclusion, that it and vaccinia being the same disease, the vaccine virus, as a separate entity, really has no existence, and that variolous inoculation is a justifiable procedure. M. Guerin exposes the fallacies of such views, and arrives at these conclusions—1. The various affections (of the horse), considered up to the present time as capable of engendering the cow-pox, may be all resolved into one and the same disease, variola, which, transmitted from the horse to the cow, and from the cow to man, constitutes the true cow-pox—the vaccine virus. 2. That although the vaccine virus emanates originally from the variola of the horse, and preserves something of its origin, it acquires, by its passage through the cow and its installation in man, elements of a different nature and new properties, which prevent its being longer considered as identical with the variolous virus. 3. That inoculation of variola ought not, and cannot on any ground, or under any pretext, be substituted for vaccination, which remains endowed with all its properties as a preservative from variola.

M. Rayer, unable longer to withstand the unmitigated opposition which he has met with on the part of the students and some of his colleagues, has just resigned the post of Dean of the Faculty of Medicine. The arbitrary manner in which his appointment was made was the chief cause of the opposition it met with; for the late Dean seems to have administered his high office with very enlightened views, and to have introduced notable improvements into the courses of teaching and the facilities for the acquisition of knowledge. However this may be, M. Rayer's fame is European, based upon the approved labours of half a century; and we are glad to find it recognised by his elevation to the rank of Grand Officer of the Legion of Honour—the highest degree of this honour ever accorded to a Medical man.

MEDICAL OFFICER OF HEALTH FOR BIRKENHEAD.—At the last monthly meeting of the Birkenhead Commissioners, it was resolved to appoint a Medical officer of health—a situation which was rendered necessary in consequence of the rapid increase of population in the township. The matter was left in the hands of the Health Committee, and, after carefully considering the testimonials of forty applicants, they decided upon recommending the appointment of Dr. Baylis, who was a commissioner for several years, but who has for a year or two resided in Douglas, Isle of Man. The recommendation was confirmed by the board at their meeting on January 6. Whilst a commissioner, Dr. Baylis took great interest in the sanitary condition of Birkenhead, and the township is indebted to him for many improvements. The salary is £250 per annum.

EFFECTS OF EATING MEASLY PORK AND SAUSAGES IN PRUSSIA.—If all the accounts which reach us be correct, there is an alarming prevalence of trichina disease in Prussia, in consequence of eating raw or badly cooked bacon and sausages. The last we have seen is from Hettstädt, in the Government of Marseburg, which states that after a feast, at which fresh sausages formed a prominent dish, ninety persons became affected with trichina, of whom twenty soon died. The local governments of Cologne and Erfurt have issued proclamations on the subject, calling attention to the danger of eating this description of food.

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THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF NORWICH.

(Continued from page 43.)

Surgical Mortality of the Norfolk and Norwich Hospital.

In my last communication I dwelt on the operations for stone, and on the probable reasons for the low mortality by which that operation has been signalised in the Norwich Hospital. From this special point I propose to glance briefly at the mortality of the Surgical practice altogether. No test of the salubrity of any Hospital approaches that rendered by the results of the Surgical practice. The Medical cases cannot easily be calculated upon; they may yield a very high or a very low mortality in different years, because the diseases may vary greatly in kind and intensity; but when a series of deaths occur in a given time, within one building, upon Surgical practice, and especially upon operative practice, we may predicate almost with absolute certainty as to the condition of the Hospital. Unfortunately, the records of the Norwich Hospital do not supply us with accurate information respecting deaths after operation for longer than three years; but I have before me the whole mortality of the institution per year for seven years, viz., from 1856 to 1862, both years inclusive; and from these details I am enabled to calculate the percentage of deaths from all causes, and also the percentage on the Surgical side as a whole for these seven years. To this I am prepared to add the percentage *after operation* for three years, viz., for 1860, '61, and '62.

Mortality for the Year 1856.

Total of cases in Hospital	870
Total of deaths per cent.	5·51
Total of deaths per cent. on Surgical side	3·98

Number of operations—Capital, 102; minor, 23: total, 125.

In the course of this year there were eleven deaths from burns and scalds, and four deaths from fractures of the thorax,—cases which were brought to the Hospital, we may say, to die.

Mortality for the Year 1857.

Total of cases in Hospital	885
Total of deaths per cent.	4·63
Total of deaths per cent. on Surgical side	3·16

Number of operations—Capital, 81; minor, 12: total, 93.

Mortality for the Year 1858.

Total of cases in Hospital	910
Total of deaths per cent.	4·83
Total of deaths per cent. on Surgical side	2·52

Number of operations—Capital, 135; minor, 12: total, 147.

Mortality for the Year 1859.

Total of cases in Hospital	1007
Total of deaths per cent.	3·77
Total of deaths per cent. on Surgical side	2·28

Number of operations—Capital, 122; minor, 27: total, 149.

Mortality for the Year 1860.

Total of cases in the year	930
Total of deaths per cent.	5·59
Total of deaths per cent. on Surgical side	3·01

Number of operations—Capital, 155; minor, 44: total, 199.
Deaths per cent. after operations, 4·02.

Mortality for the Year 1861.

Total of cases in the year	1011
Total of deaths per cent.	4·64
Total of deaths per cent. on Surgical side	2·86

Number of operations—Capital, 198; minor, 85: total, 283.
Mortality per cent. after operations, 6·00.

In this year (1861), while the number of operations performed in the Hospital increased to 283, the mortality after operations rose to 6·00 per cent. The whole Surgical practice, however, showed only a mortality of 2·86 per cent., so that there must, obviously, have been special causes at work to produce so high a rate of mortality after operation. At first sight, the greater number of operations performed might seem to account for the results; but on turning to the table of cases, we trace the increase to *one* operation alone—I mean the median operation for stone. That operation added 2·12 per cent. to the mortality after operations.

Mortality for the Year 1862.

Total of cases in the year	1040
Total of deaths per cent.	5·09
Total of deaths per cent. on Surgical side	2·50

Number of operations—Capital, 171; minor, 138: total, 309.
Mortality per cent. after operations, 3·55; or 1 in 28·09 patients.

We gather from these details that the total mortality in the Norwich Hospital for the past seven years, at least, has been remarkably low, being not more than 4·85 per cent.; while the mortality of the Surgical practice has been ·01 under 3 per cent. This mortality, which is a little below the average—the mean for ninety years being 5·52 per cent. per annum—might compare with that of many towns and villages where the people are supposed to be in health and in work, instead of suffering from the most painful and fatal maladies, as in Hospital. The key to this success is to be found in the fact, that two of the most mortal maladies after operations are scarcely known in the Hospital. Looking over the list of deaths for the seven years, the word *pyæmia* occurs but once, and erysipelas not once. Five times in the seven years tetanus has appeared, every case proving fatal; and hernia seems to me to rank high as a cause of death, the proportion being, in the seven years, nearly 25 per cent.; but the cause of this high mortality from hernia arises from the circumstance, that the patients are too frequently brought under the operator long after the first symptoms of strangulation have set in.

I may add, while treating on operations for hernia, that it is the custom with the Norwich Surgeons to open the hernial sac. Whether this adds to the mortality or not can only be settled by reference to the statistics of other country Hospitals, where a different method prevails. I shall call attention, in the future, to this point of inquiry.

Days of Operation, and Operations.

Friday is the operating day at the Norwich Hospital. The theatre is large, and excellently lighted from above, and the gallery for lookers-on is well arranged. I was so fortunate as to be present on a Friday, when four capital operations were performed—viz., two median operations for stone, and one amputation of the thigh, by Mr. Cadge; and an amputation of the thigh by Mr. Firth. The style of operating by both these gentlemen—the precision, the dexterity—were simply perfect. There was no hurry, no attempt at brilliancy, but a practical mastery, which I have nowhere seen surpassed. The operators were most efficiently seconded by the Assistant-Surgeon, Mr. Crosse.

Mr. Cadge, as I have said, performed two median operations: in the first, the stone being small, extraction was very easy and rapid; in the second, after the stone was grasped, it was extracted with considerable difficulty, for it was very large.

There is a point of practice followed by Mr. Cadge in these and in all lithotomy operations, which is new, and which, in the hands of a skilful operator, probably possesses its advantages. Mr. Cadge invariably has the staff withdrawn so soon as he cuts into the bladder, never using the staff as the guide for his finger. He tells me, that even in children he has no difficulty whatever in passing his finger into the bladder, after the withdrawal of the staff.

Chloroform and its Administration.

Chloroform at the Norwich Hospital is entrusted to one responsible administrator, viz., the House-Surgeon. In some cases one of the Physicians also takes part in watching the symptoms produced. The mode of administration is of the most simple kind. A piece of linen is folded into the shape of a funnel, and chloroform is poured on the inner surface. The quantity of chloroform is not measured, but at first abundance of air is allowed to enter the lungs, so that the process of narcotisation progresses with moderate slowness. The patients are invariably prepared for inhalation by being kept from eating a meal for some hours previously; but half an hour before the inhalation a glass of wine is allowed. The results of these methods of administration and preparation have been exceedingly good. Chloroform has been administered in the Hospital at least one hundred and fifty times per annum since its introduction in 1848. This would give a total of two thousand two hundred and fifty administrations, and there has not been *one* death. Indeed, the only death that has ever occurred from chloroform in the city of Norwich was one in which a homœopath, acting, of course, on the rule of *similia similibus curantur*, tried to stop pain in a suffering patient by subjecting the patient to the excruciating tortures

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of anæsthesia from chloroform. In the hands of this philosopher, the agony excited by the narcotic was mortal, so that he succeeded in his intention even beyond his own expectations, and the homœopathic dogma was amply, though rather unhappily, vindicated. It may be noted, that in the Hospital practice at Norwich vomiting after chloroform is extremely rare. This arises from the preparation of the patient. The freedom from any accident of a fatal kind is due unquestionably to the skill and unremitting attention paid to the sleeper during the administration. The administrator here looks on his duty, not as a measure simply for assisting the Surgeon, but as a process to which he must subject the patient. Consequently, he feels his own responsibility equally with the Surgeon, and acts with the discretion of an independent operator.

Prevailing Diseases in the Hospital.

The prevailing diseases admitted into the Hospital, excluding accidents and injuries, are seven in number, and arranged in order, according to their prevalence, run thus:—Ulcers; diseases of joints; phthisis pulmonalis; rheumatism, acute and chronic; cancer; stone in the bladder; struma and tuberculosis. In the years 1861-62, out of 2051 cases of all kinds, the diseases named presented the following percentages:—

1. Ulcers . . . . . 5·60
2. Diseases of joints . . . . . 5·41
3. Phthisis pulmonalis . . . . . 4·58
4. Rheumatic fever and chronic rheumatism . 4·09
5. Cancer . . . . . 3·07
6. Stone . . . . . 2·58
7. Struma and tuberculosis . . . . . 2·28

The relative proportion of cancer in this list is greater than I have ever seen it in any comparative table of disease derived from a given locality; and the fact will stand out more remarkably when I state, that twenty-two cases of lupus, and all tumours about which there could be any doubt, are excluded. In order to render the analysis of cancer clearer, I would ask attention to the following tables, showing the varieties of cancerous disease, the organs affected, and the sexes. I am once more indebted to Mr. Williams for the facts supplied.

Cases of Cancer observed at the Norfolk and Norwich Hospital from October 1, 1860, to October 1, 1862.

	Cases.
Face, including lip, antrum, eyelids, nose and cheeks	45
Eye	3
Tongue	6
Glands in anterior mediastrum	1
Œsophagus	7
Sternum	1
Breast, left	14
„ right	12
Axilla	2
Arm	4
Hand	2
Stomach, pylorus	7
Liver	2
Omentum	1
Abdominal walls	2
Inguinal glands	2
Penis	2
Testis	2
Scrotum	3
Thigh	2
Knee	1
Leg	3
Bladder	2
Ovary	2
Uterus and vagina	17
Rectum	9
Total	154

Varieties of Cancer.

	Cases.
Epithelial	55
Encephaloid	40
Scirrhus	53
Colloid	6
	154

	Cases.
Males	75
Females	79
	154

	Cases.
Hereditary . . in	8
Not hereditary . „	100
Unknown . . „	46
	154

The seven diseases which have been thus noticed furnish in the gross no less than 28·13 per cent. of all the maladies, for the treatment of which the Norfolk and Norwich Hospital has been built. I cannot dwell on a fact of so important an order as this is with too much force. The pathologist, as he lets his eye follow the line of diseases, grasps the fact, that they are one and all connected, and are dependent for their development on conditions bearing on the social state of the sufferers; and that what is simple ulcer in one man is cancer, or phthisis, or joint disease in another. Thus led on, through the causes back to the maladies, he is brought to the sure and certain conviction, that if the benevolent friends who support this Hospital were to pay more attention to the homes and comforts of the poor who come to the Hospital, 28 per cent. of the persons there treated at great expense, and at the best with much suffering, need never go there at all, but might be working as perfectly healthy men always work, with spirit, alacrity, and little care.

On the Use of Alcohol in the Hospital, and on Blood-letting.

Before leaving the Norwich Hospital and the lessons it communicates, I was anxious to make out whether any relationship existed between the quantity of alcohol taken, or the amount of blood withdrawn from the patients, and the mortality. In respect to venesection I could gain no accurate facts; but Mr. Williams has extracted from the books of the Hospital the quantities of alcohol consumed per patient from the year 1823 to 1836, and from the year 1849 to 1862. He has also made out the cost of leeches from 1831 to 1836, and from 1849 to 1862, and to each year he has added the number of patients in the house, and the mortality. We are thus enabled, from Mr. Williams' calculations herewith subjoined, to estimate absolutely, over a long period, the relation of alcohol to the mortality; and, inasmuch as of late years the leech has almost entirely taken the place of the lancet, we may arrive at an approximative idea as to the effects of loss of blood:

Year.	Number of Patients.	Deaths.	Ounces of Alcohol per Patient.	Cost of Leeches.
			oz. dr.	
1823	688	35	12 3	Not given.
1824	645	27	11 6	„
1825	712	37	12	„
1826	760	34	11	„
1827	773	65	11 3	„
1828	841	42	15 6	„
1829	774	59	16 2	„
1830	801	28	6 4	„
1831	838	26	15 4	£38
1832	816	36	6	£20
1833	822	38	6	£14
1834	851	35	10 5	£23
1835	869	46	11 3	£25
1836	792	48	7 3	£26
1849	783	37	8 6	£15
1850	836	46	13	£8
1851	847	38	17	£9
1852	859	45	18 3	£5
1853	895	37	11 4	Unknown.
1854	863	44	12 6	£13
1855	868	46	22	£12
1856	870	48	18 6	£13
1857	885	41	17 5	£7
1858	910	44	12	£9
1859	1007	38	18 6	£6
1860	930	52	14 5	£3
1861	1011	47	18 2	£4
1862	1040	53	21	£3

We glean from this table a fact which might well be anticipated, that of late years the quantities of alcohol that have been administered have increased, while the abstraction of blood has decreased almost to *nil*. But beyond this the calculations furnish us with no data that run in a line indicating any precise order of phenomena. To be accurate, I have worked out the mortality per cent. of each year from 1831, and I find that in the year 1831, when not less than £38 was spent on leeches, when unquestionably the lancet and cupping-glass were also freely used, and when, at the same time, the amount of alcohol was liberal—15 oz. 4 drs. per patient—the mortality was lowest, being only 3·10 per cent. It was next lowest in 1859,—when 18 oz. 6 drs. of alcohol were supplied, when only £6 were spent in leeches, and when a lancet scarcely ever was seen,—being at that time only at the rate of 3·76 per cent. On the other hand, the mortality was highest in 1836, when but 7 ozs. of alcohol were allowed, and when the abstraction of blood was nearly a fourth less than in 1831, the year in which the mortality was lowest.

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I can extract only two practical conclusions from the above table, and these are—1st. That at the Norwich Hospital alcohol has never been pushed to such an extreme as to cause a large increase of the mortality; 2nd. That the reduction of blood-letting in that Hospital has not given rise to any decrease in the mortality.

Those members of the Profession who remember Dr. Patrick Fraser's able researches and deductions relative to the influence of alcohol and of blood-letting in the London Hospital, will refer to the statistics I have given above with much interest. Dr. Fraser's results show the effects of extreme measures of stimulation and depression, and yield a bad column to each extreme. Mine show a middle measure, and no great harm at any point.

"Diet Table of the Norfolk and Norwich Hospital.

I.—FULL DIET. II.—MIDDLE DIET.

	MEN.			WOMEN.			MEN.			WOMEN.		
	Breakfast.	Dinner.	Supper.	Breakfast.	Dinner.	Supper.	Breakfast.	Dinner.	Supper.	Breakfast.	Dinner.	Supper.
Sun.	Bread 7 oz. Butter ¾ oz. Tea 1 pint.	Boiled mutton 6 oz. Bread 2 oz. Vegetables. Beer 1 pint.	Bread 7 oz. Butter ¾ oz., or cheese 2 oz. Tea 1 pint.	Bread 6 oz. Butter ¾ oz. Tea ¾ pint.	Boiled beef 5 oz. Bread 2 oz. Vegetables. Beer ¾ pint.	Bread 6 oz. Butter ¾ oz., or cheese 1½ oz. Tea ¾ pint.	Bread 6 oz. Butter ¾ oz. Tea 1 pint.	Boiled mutton 4 oz. Bread 2 oz. Vegetables. Beer ¾ pint.	Bread 6 oz. Butter ¾ oz., or cheese 1½ oz. Tea 1 pint.	Bread 5 oz. Butter ¾ oz. Tea ¾ pint.	Boiled beef 3 oz. Bread 2 oz. Vegetables. Beer ½ pint.	Bread 5 oz. Butter ¾ oz., or cheese 1 oz. Tea ¾ pint.
Mon.	The same.	Baked rice Pudding 12 oz. Beer 1 pint. Broth 1 pint. Bread 2 oz.	The same.	..	Rice pudding 10 oz. Beer ¾ pint. Broth ¾ pint. Bread 2 oz.	..	..	Rice pudding 10 oz. Beer ¾ pint. Broth 1 pint. Bread 2 oz.	..	..	Rice pudding 8 oz. Beer ½ pint. Broth ¾ pint. Bread 2 oz.	..
Tues.	..	As on Sunday, but with roast beef.	..	..	As on Sunday, but with roast mutton.	..	..	As on Sunday, but with roast beef.	..	..	As on Sunday, but with roast mutton.	..
Wed.	..	Norfolk dumpling 10 oz., with dripping Bread 2 oz. Meat broth 1 pt Beer 1 pint.	..	..	Dumpling 8 oz. with dripping Bread 2 oz. Broth ¾ pint. Beer ¾ pint.	..	..	Dumpling 8 oz. with dripping Bread 2 oz. Broth 1 pint. Beer ¾ pint.	..	..	Dumpling 6 oz. with dripping Bread 2 oz. Broth ¾ pint. Beer ½ pint.	..
Thur	..	Boiled beef, the rest as on Sunday.	..	..	Boiled mutton the rest as on Sunday.	..	..	As on Sunday, but with boiled beef.	..	..	As on Sunday, but with boiled mutton	..
Fri.	..	As on Wednesday.	..	..	As on Wednesday.	..	..	As on Wednesday.	..	..	As on Wednesday.	..
Sat.	..	As on Sunday, but with roast mutton.	..	..	As on Sunday, but with roast beef.	..	..	As on Sunday, but with roast mutton.	..	..	As on Sunday, but with roast beef.	..

III.—MILK DIET.—MEN AND WOMEN. IV.—LOW DIET.—MEN AND WOMEN.

	Breakfast.	Dinner.	Supper.	Breakfast.	Dinner.	Supper.
Daily . . .	Bread 5 oz. Milk 1 pint.	Milk pottage 1½ pint. Bread 4 oz.	Bread 5 oz. Milk 1 pint. Arrowroot ½ oz., or rice 1 oz. Sugar ¾ oz.	Bread 3 oz. Tea 1 pint. Butter ½ oz.	Bread 2 oz. Broth 1½ pint. Vegetables.	Bread 3 oz. Gruel 1½ pint. Sugar ¾ oz.

"Every patient, when admitted, is to be put upon middle diet, unless otherwise prescribed for by the Physician or Surgeon. Toast and water to be always ready in each ward, and barley water when required.

"The following modifications of the above table are to be made for patients of various ages:—Patients above 15 are to be considered adult as to diet. Patients from 12 to 15 to have the allowance of women for full diet. Patients from 8 to 12 to have women's middle diet for full diet. (Both these classes to have half the men's full diet for middle diet.) Patients under 8 are to have half the men's full and middle diet for their full and middle diet respectively. All patients under 12 to have the breakfast of milk diet. In milk diet, for patients under 12, 10 oz. of bread daily, and 8 oz. for those under 8 years.

"N.B.—Vegetables mean potatoes."

In quoting this table, we detect in it the same faults as in all diet scales, viz., the three days per week of everlasting slop. There is, however, one great improvement in this table which deserves to be copied into all tables—twice weekly, on alternate days, in the male and female wards, *roasted* animal food takes the place of *boiled*.

In the facts now recorded I have supplied, I believe, all that is most noteworthy from the Norwich Hospital. There are certain inquiries progressing which will bear fruit: thus, the alkaline treatment of diabetes is undergoing careful observation, and, as we have seen, the median operation for lithotomy is fairly on its trial. But the data are as yet insufficient on these points to permit of any correct inferences being drawn from them.

THE NORWICH DISPENSARY.

The Norwich Dispensary, or, as it is called by the poor, the "County Dispensary," was established in 1804. The Dispensary was first situated at Elm-hill. Later, it was removed to Pottergate-street; and finally, in 1856, it was removed to a convenient house in St. John's Madder-market, where it still remains. The number of patients relieved amount to two thousand annually; more than five hundred of these are visited at their own houses.

Patients are admitted on the recommendation of a Governor only.

The Dispensary is managed by a Committee of Governors, which includes, as *ex officio* members, the Patron (the Lord Bishop of Norwich); the President, the Treasurer, and the Physicians.

Henry Brown, Esq., is, and has been for many years, its excellent Honorary Secretary, as well as Treasurer.

The Medical Staff consists of two Physicians and a qualified resident Medical officer.

The Physicians attend at the Dispensary on four days in each week.

Since the foundation of the Institution, in 1804, the following Physicians have successively held office in it:—Drs. Wright, Evans, Barrett, Johnson, Tawke, Wharton, and Eade.

The present Medical Staff consists of—Dr. James Johnson, M.D., and Dr. Peter Eade, M.D., M.R.C.P., as Physicians; and Hugh Taylor, Esq., M.R.C.S. and L.S.A., as resident Medical officer.

Points of Practice.

Prevailing Diseases.—Dr. Eade, one of the able Physicians to the Dispensary, has been good enough to report to me his observations on the practice of the Dispensary. "The condition of the patients is," says my learned friend, "essentially adynamic, often combined with the presence, to a greater or lesser degree, of the oxalic diathesis, and of more or less marked nervous symptoms,—either actually manifest, or readily induced by any treatment which is in the slightest degree depressing. This condition has been generally benefited by the mineral acids, steel, nux vomica, and other such specially nervine tonics, in contradistinction to ammonia, gentian, and the more ordinary forms of tonic remedies.

"The presence of oxalates, in quantity, in the urine, with more or less of the general constitutional phenomena which

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usually coexist with this condition, is a very common form of disorder in Norwich.

"A large experience of this morbid condition," continues Dr. Eade, "enables me to speak of it with some confidence, and to express an opinion with regard to it very much in corroboration of that of Dr. Prout, and in opposition to that of other writers, who have considered the presence of oxalates in the urine of no special significance. It is quite true that a few crystals of oxalate of lime may be, and are, found in the urine of a very large number of patients. It is also true that oxalates, in large numbers, may be found in the urine of patients suffering from full-blooded, plethoric, irritative dyspepsia; but in these cases there will also be present, in large quantity, the amorphous lithates, lithic acid, and an excess of nearly every other urinary constituent. But in the true oxaluria seen here, oxalates are the only crystalline deposit often seen under the microscope. The urine, too, is peculiar. It is of high specific gravity, containing a large proportion of earthy salts, often an excess of urea; it is very pale in colour, depositing a faint mucoid cloud after repose; and, when the diathesis is very pronounced, the patients will report that it is always bright and clear, and never turbid or thick (with lithates) after standing to cool,—a fact which they often mention as proof of its necessarily healthy condition.

"The constitutional accompaniments of this state I have not found very constant, but they are generally referable to a varying amount of general debility, flatulent and slow digestion, irregular action of heart, pain in the loins, uneasiness or weight at the vertex of head, depression of spirits, loss of sexual power, and occasionally, also, of some muscular power in the legs.

"The treatment I have found most successful is the use of the mineral acids, with the addition of a little tincture of steel, tincture of nux vomica, sulphate of magnesia, etc., according to the peculiarities of the case; the avoidance of malt liquors, and the daily use of cold salt-spongings of the skin, followed by active friction. It is noticeable that these patients, though they feel so weak and languid, yet will say that they generally are the better after any vigorous exertion of the body, such as shall have actively excited their circulation, and thereby increased the cutaneous transpiration.

"Another very common disease in Norwich is anæmia, or, more properly, spanæmia, with its allies, hysteria and neuralgia, and more or less derangement of the uterine functions. This, perhaps, is only what might be expected where a considerable proportion of the female population is employed in factory work, or in the sedentary occupation of binding shoes, the boot and shoe trade being now a large and increasing industry in this city.

"The features of this disorder are, simple pallor, or otherwise sallowness of skin, pain below one or both breasts, generally the left, tenderness (nearly always) in dorsal spine, a sensation of painful weight over the forehead, pains in ovarian or other abdominal regions, dyspnœa and palpitation on exertion, anæmic vascular murmurs, and generally scanty or colourless or deferred menstruation.

"Cold bathing is nearly always useful, but steel is not the only remedy required in many cases for cure. Where there is struma also present, quinine and cod-liver oil are most useful; but I have found that many cases which have resisted all these have at once and speedily recovered when a little iodide of potassium has been added to a steel mixture. This remedy is doubtless a powerful emmenagogue, as well as regulator of the glandular system; and I assume that it is by virtue of this power of re-establishing a normal secretion that it is so useful in these cases. Even when administered alone, I have found it of great use in correcting uterine and ovarian irregularity.

"Bronchocele is comparatively common; diabetes occurs rather often; and strumous debility and phthisis form a very numerous class of cases."

On the Hypophosphites in Phthisis.—On this point Dr. Eade reports as follows:—"In 1856, when Dr. Churchill first recommended the administration of the hypophosphites as a remedy for phthisis, I prescribed the hypophosphite of soda in five-grain doses, thrice daily, to eight successive and non-selected cases, and carefully observed its effects. In several of these patients, some of the more urgent symptoms, such as the cough, expectoration, and sweating, did undoubtedly appear to be relieved at first, and soon after commencing the treatment, and for a time the patients expressed their belief that the medicine was doing them good; but as they soon began to fail again, in spite of the continuance of the remedy, the conclusion was forced upon me that its efficacy, if any, was but slight and temporary, that it was insufficient to arrest the progress of phthisis, and that the temporary amendment was rather to be attributed to the sanguine temperament peculiar to the disease, which would be more particularly called into play by the knowledge that a new remedy was being tried upon them, and by the livelier state of their general system, which would be excited by the greater and closer attention they were receiving.

"*Discoloration of the Gums in Phthisis.*—Some rather numerous observations have also been made at the Dispensary with reference to the presence and significance of a red or bluish-red discoloration of the free edge of the gums in phthisical patients. The presence of a well-defined line was found, as a rule, to indicate the existence of phthisis, or of some other form of scrofulous disease: on the other hand, it was found to be rare, indeed, for a well-developed case of phthisis not to present this discoloration in one or both jaws. The general conclusions arrived at as to the significance of this mark were, on the whole, confirmatory of those enunciated by Dr. Theophilus Thompson, as the result of his observations on the subject, and went far to indicate this as a most valuable sign of present or threatened tubercular disease.

THE JENNY LIND INFIRMARY FOR SICK CHILDREN.

The Jenny Lind Infirmary for Sick Children, founded in 1853, is another institution deserving notice. It is a small, comfortable house, with playground attached. Sick children are received on recommendation of a Governor.

Boys between the ages of two and nine years, and girls between the ages of two and eleven years, suffering from any disease not contagious or infectious, are admissible as in-patients; and children of both sexes, from birth to the age of twelve years, are admissible as out-patients of the Infirmary. Under special circumstances, a child under two years of age may be admitted into the Hospital, and, if requisite, with the mother. In cases of great urgency the admission may be immediate.

All in-patients are discharged at the end of two months after their admission, unless the Physician or Surgeon certify to the Committee of Management that there is a probability of their being cured, or of receiving considerable relief.

Children suffering from accidents or external injuries, or their immediate effects, are not at present generally admissible as in-patients. Such children may, however, be treated as out-patients, and may also, under special circumstances, be received into the Infirmary.

Every in-patient affected subsequently to admission with epidemic or endemic disease, is placed in a separate department of the Infirmary, and remains there during the whole time of residence in the Infirmary, being strictly secluded from any kind of intercourse with the patients or nurses in the other parts of the house.

All children removed to this part of the Infirmary are at once, and during the whole period of their stay in the Infirmary, furnished with needful clothing. The clothes which the child wore on its removal are washed, exposed to the air, and returned to the child on its discharge.

From sixty to seventy patients are admitted to this Institution annually as in-patients, and nearly four hundred attend as out-patients. The diseases subjected to treatment are mainly ophthalmia, dental irritation, convulsions, scrofula, eruptions of the scalp and skin, club feet, curvature of the spine, atrophy, nævus, hydrocephalus, abscess, diseases of the ear, diseases of the lungs, diseases of the hip and knee joints, burns and rickets.

The arrangements of the Hospital seemed to me very simple and effective. The wards are ventilated by the insertion of one large sheet of perforated glass plate in the lower sash of the window. I have not seen the same method carried out on so large a scale in any Hospital previously. It seemed to me that it must necessarily lead to draught; but Mr. Hutchison, one of the Surgeons, who was so courteous as to explain to me every fact, stated that the objection had not, practically, been felt. Certainly, where an old house has to be turned to a new purpose, this plan of ventilating is as simple as it is cheap; but I should think that the *upper*, not the *lower* sash, should be the half of the window to receive the perforated plate.

In 1856, Jenny Lind Goldschmidt, after whom the Infirmary is named, and who contributed largely to the foundation, paid a visit to the charity, and left in the visitors' book the follow-

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ing characteristic note, which is now framed and placed in the Board-room :— "February 8, 1856.

"Jenny Lind Goldschmidt, having succeeded in inspecting the institution herself, feels happy to confirm the words of satisfaction which her husband expressed for her, in regard to this lovely institution, two days ago."

The Medical officers to the Jenny Lind Infirmary are—Physician — Dr. Copeman; Surgeons—T. W. Crosse, Esq. and G. S. Hutchison, Esq.; Assistant-Surgeon — C. E. Muriel, Esq.

Medical pupils are admitted to the practice of the Jenny Lind Infirmary.

NORWICH LYING-IN CHARITY.

This Lying-in Charity is held at the same building as the Jenny Lind Infirmary, but the two charities are quite distinct. The Medical officers of the Charity are — Dr. Copeman, Physician; T. W. Crosse, Esq., and W. H. Day, Esq., Surgeons, with C. E. Muriel, Esq., Assistant-Surgeon. The object of the Charity is to supply to poor women, at their own homes, attendance in childbirth, by midwives, who act under the direction of the Medical staff, and who refer to some member of the staff in all cases of difficulty. Nine midwives are appointed to the Charity, and each one receives four shillings for every case she attends; their services are required in at least 400 cases annually. Recommendation has to come from a Governor, who, for a guinea, is allowed three tickets a-year.

Every poor woman who has the benefit of the Charity, receives, in addition to attendance, the loan of a bag containing double suits of requisite clothing, and a box of anodyne aperient pills; the whole costing the institution six shillings and twopence each time. She also receives as a gratuity three pints of oatmeal or groats, one pound and a-half of sugar, two ounces of tea, and three-quarters of a pound of soap.

I was anxious to enquire as to the competency of the midwives in their attendance on the parturient cases; and I received the most unmistakable report in their favour. Carefully selected at first, and acting at all times under the superintendence of a competent Medical direction, they perform their duties with signal success. There does not seem to have been a single fatal error ever committed by them since the Institution was founded—nor, indeed, any error whatever. It would be a great boon if in every other town where there is an excess of poor, and where a proper Medical fee cannot be paid for midwifery, the Medical men were to organise a similar charity. It would ensure for the poverty-stricken qualified assistance at an hour of great need, and would prevent that gross imposition to which they are constantly subjected by midwives who act under no responsibility, and rely only on their own impudence and love of self.

While alive to all the social advantages arising from the Norwich Lying-in Charity, I cannot avoid pointing out one particular and grievous error—I refer to the donation of soap and of so-called food to the parturient women. No objection can be made to the soap—that is equally suggestive as useful: but oatmeal, sugar, and tea—think of those articles as flesh and blood makers! Where can we find in them either flesh or blood, or milk for the infant at the breast? The same money's worth, spent in soup or solid animal food, would be of real use to mother and child; that which is given is worse than thrown away.

NORFOLK AND NORWICH INFIRMARY FOR THE CURE OF DISEASES OF THE EYE.

The Norfolk and Norwich Infirmary for the Cure of Diseases of the Eye was established in 1822, and ten years ago was placed on a permanent footing. The present Infirmary house was originally an old-fashioned mansion; it is in a good central position, is roomy and spacious, and, though not surpassingly elegant, it answers its purpose. Only two floors are occupied as yet. The Medical staff consists of Dr. Copeman, Physician, and G. W. Firth and G. Goodwin, Esqs., Surgeons. From forty to fifty operations are performed annually.

Points of Practice.

Airing Grounds for the Blind. — The most noteworthy, because a novel and important point of practice in this Infirmary, is the formation of an airing-ground, so arranged that patients who cannot see can walk out, in warm or suitable weather, and enjoy themselves without guides or attendants. The exercise-ground, which adjoins the institution, is marked off into paths by firm, smooth railings, high enough to be felt comfortably by the hand, and to direct the patient the way in which he may walk safely. The advantages of this simple plan are so obvious, that I cannot doubt but that it will be followed out in every similar institution, when it is generally known. The Profession, and the public not less than the Profession, are indebted for this thoughtful advancement in the humanities of Surgical art, to Mr. Firth.

Iridectomy.—The operation of iridectomy has not yet been largely tried. Mr. Firth has had five cases. In one case of intense glaucoma, the operation, performed as a forlorn hope, caused recovery of sight; but in a little time cataract followed, for which disease Mr. Firth operated by extraction. The patient recovered, and the restoration of sight was again perfect, and this time permanent.

Operations for Cataract.—The operation by extraction is mainly carried out. The results of the operations are thus given :—

Restoration of sight in 50 per cent. of cases.			
Guiding sight . .	25	,,	,,
Failures . . .	25	,,	,,

Chloroform.—Chloroform is not used in adults, in operations on the eye, except in very rare instances.

Firth's New Canular Forceps.—I cannot close this notice without referring to a new canular forceps which has proved of great use to the operating Surgeons. Ten years ago, Mr. Firth observed that the ordinary canular forceps was inconvenient. It was necessary to press down the lever to close the blades during their passage through the opening in the cornea, and a good hold was not retained on the capsule. The capsule itself was also wont to give way. To obviate these difficulties, Mr. Firth had a catch adapted to hold down the lever, and allow, after grasping it at one point, a portion of the capsule to be twisted round, rope-like, until it was strong enough to be completely extracted. This instrument did not quite answer, for it was difficult to release the catch so as to allow the expansion of the forceps within the aqueous chamber. He, therefore, had constructed, by Messrs. Weiss, in 1858, a canular forceps which was expanded by pressure upon a lever, and closed by recoil of the spring. The instrument was perfected by Mr. Weiss, who adjusted to it a carved double-lever, which can conveniently be pressed by the thumb at either end, so as to close or open the forceps at pleasure. Those ophthalmic Surgeons who have not yet seen or used this cancular forceps will find the instrument worth their attention, and worthy of their skill.

Report of the Council of the Pathological Society, January, 1864.—The Report stated that the total receipts for the past year have amounted to £353 14s., of which £12 8s. 1d. have been realised by the sale of *Transactions*, and £5 14s. 3d. as dividend from stock, leaving as the amount of subscriptions the sum of £334 19s. Of this, £45 3s. have been received as life fees and as composition fees from non-resident members, and will, in accordance with previous practice, be invested in Three per Cent. Consols. Besides this, there is a balance of £190 18s. 5½d. from the preceding year, making a total of £543 19s. 9½d. Of this, £119 19s. have been added, by order of the Council, to the Society's funded property. The total expenditure amounts to £329 3s. 3d., leaving in the treasurer's hands a balance of £78 2s. 6½d. to be carried forward to the account of the current year. The amount of stock in Consols held by the trustees for the Pathological Society is now £259 13s. 5d. Next, in relation to numerical strength, it should be stated that the Society is at this moment constituted by a larger number of members than at any previous period of its existence. The average attendance at its meetings is also higher—a fact which demonstrates the increasing interest which attaches to the operations of the Society. The supply of pathological specimens has been more than ample, and on most evenings more than sufficient for examination, to say nothing of discussion. If any ground of complaint could possibly be alleged, it arises from an absolute superabundance of valuable examples of morbid product. The often imposing list, the reading of which commences the proceedings of each meeting, sometimes suggests such a reflection as the following :—"It is true that each of these preparations is intrinsically valuable and interesting; that it is necessarily so to the exhibitor, who has watched narrowly the phenomena which have marked its development; but has it been considered whether the specimen subserves also that purpose which is, after all, the higher one, viz., to afford interest, and perhaps instruction, to many of the hundred members whose time will be occupied by its examination, or of the four hundred who pay for its record in their annual volume?"

REVIEWS.

Shanghai Hygiene: or, Hints for the Preservation of Health in China. By J. Henderson, M.D.

There can be no doubt of the value attaching to any attempt at lessening the mortality of Europeans in China. From whatever cause it arises, the decimation of our countrymen by disease soon after their arrival in that climate should be attentively studied, and, if possible, prevented. The writer of a memoir bearing the name given above, does not only address himself to his Professional brethren, but aims at instructing the general reader. "It is always safe," he says, "and frequently successful, to appeal to the reason and common sense of an Englishman, and to place the real facts or the truth before him, and let him judge for himself." Dr. Henderson, as a resident at Shanghai, is undoubtedly competent to form a trustworthy opinion of the climate, and we rejoice to find his testimony so clear and decided. He is of opinion "that an European with a tolerably good constitution has his health almost entirely in his own keeping on arriving in Shanghai; and if he is careful in regard to his diet, drink, exercise, and clothing, he need not fear the climate."

In the first place, Europeans appear to eat too much. "They come off the P. and O. steamer," says the doctor, "bordering on a state of disease from over repletion." And on landing they continue the dangerous excess, leading him to add that "much dyspepsia, languor, and a feeling of being generally out of sorts, requiring changed climate, and also troublesome diarrhœas, are produced by rich food in too great variety and too large quantity during the hot season."

Especially are residents warned against excesses in fruit and vegetables, which Dr. Henderson holds to be distinct causes of diarrhœa and dysentery. He affirms, that during the preceding year he could trace all such cases, as well as those of cholera, to indulgence in Chinese fruit or vegetables; and he adds in a note a shrewd comment, which is worthy of the attention of our theorists for utilising town sewage: "May not this," he says, "be owing, in some measure, to the *peculiar kind of manure* used here, and all over China, in raising vegetables?" He is, however, quite alive to the fact, that hot climates do differ from more temperate regions in the violence of the disorders caused by slight indiscretions, that "that which produces uneasiness, indigestion, or slight inconvenience in England, will, in Shanghai, during the summer months, induce diarrhœa or dysentery."

The author repeats the same caution respecting alcoholic drinks, and gives some lamentable information as to the habits of many residents. He insists on regular exercise, and warns his readers against the sudden coldness of the nights in September. A little pleasantry directed against "griffinish sticklers for decorum," who persist in retaining their European costume in a tropical climate, seems fairly deserved; and his high opinion of the Turkish bath as a hygienic precaution carries conviction on its face.

The latter part of the work is devoted more especially to the requirements of his fellow colonists, and, therefore, beyond our present scope; but we strongly recommend it to all who are called by the necessities of business into a climate which has, perhaps, been too hastily condemned. Dr. Henderson's memoir bears in every page the stamp of practical good sense and impartial observation.

From Matter to Spirit. The Result of Ten Years' Experience in Spirit Manifestations. Intended as a Guide to Enquirers. By C. D. *With a Preface, by* A. B. London: 1863. Longmans.

Of this very unequal book, the only portion which requires detailed notice is the preface. It is true that neither preface nor substance can prefer an equitable claim to authenticity, from their studious affectation of an anonymous character. We cannot but demur strenuously to the very opening paragraph, where it is stated, that "for obvious reasons names are suppressed and initials changed." It is an attempt to substitute general rumour and vague conversation for personal evidence; and, even if it be granted that social considerations justify withholding the author's name—a fact which is open to grave doubt—the same argument should have led to the suppression of the work itself. Such a document, to be valid evidence in a *bonâ fide* enquiry, should be duly signed and attested. If, on the other hand, the *incognito* be, as we shrewdly suspect, more simulated than real, the duplicity, patent on the very title-page, cannot but invalidate all that follows. What weight can be given to the allegation, that—"I have neither exaggerated the marvellous features of any case, nor omitted to mention circumstances by which its marvellousness might seem to be lessened? For the truth and accuracy of all incidents given without names, or with initials, I hold myself responsible." Such testimony, in an obscure case, would be accepted with suspicion from a familiar and unimpeachable authority; but when proffered by an unknown and impersonal "C. D.," it becomes, not only ludicrous, but impertinent. On the same "responsibility," we learn, in the next page, that the narratives of Mr. Home's book are perfectly trustworthy; and soon after, under the same guidance, are expected to acquiesce in Phrenology, Mesmerism, and, perhaps we may add, Swedenborgianism. Incidentally, however—from the phrase, "my husband's family"—we discover that the unknown is a woman. On the value of the "experiments" which follow, we offer no opinion, except that they seem, like all other of the class, self-convicted by their inconclusiveness and triviality. Every one will, doubtless, concur with the author, when she candidly admits, that—"I know not how to secure anything like a belief in the trustworthiness of a narrator who is not at liberty to authenticate the truth of any one narrative by the names of those concerned."

The preface stands on somewhat different ground. Although written in a style at times painfully jaunty, and all but irreverent, it is undeniably more able and profound than its bulky better half. By its very presence an accessory before the fact, and, moreover, masked by similar initials, it opens with a declaration that its writer "will not stand committed either for or against the conclusions of the book. I am perfectly convinced," says A. B., "that I have both seen and heard, in a manner which should make unbelief impossible, things *called* spiritual which cannot be taken by a rational being to be capable of explanation by imposture, coincidence, or mistake. So far I feel the ground firm under me."

The writer then proceeds to urge with force the common intolerance of unexplained facts, and the readiness to class all who "have seen faith-staggering occurrences" as either impostors or dupes. The distinction is drawn between truth and credibility, and an amusing onslaught is directed at the positive way in which many topics are conversationally pronounced on by superficial thinkers. The incompetence of coincidence as an explanation leads to discussion of evidence generally. It is unlucky that all the illustrations of this should be drawn from forensic sources, and so necessarily complicated with technical rules invalid in science, however essential for the administration of law.

Some depreciation of Bacon's philosophy leads to a good explanation of the hypothetic element present even in such discoveries as that of gravitation; and then the "spirit-hypothesis" is set before us to show that it is not less improbable than many admitted facts. "Four courts of the mind," for dealing with the different forms of evidence, have a strong savour of the Baconian method, in spite of his disesteem. The "fourth court," unlike its Cambridge namesake, presides over "principles which are presented as more or less obvious, but not capable of the absolute demonstration of logic or mathematics." Five short narratives follow, good, indeed, as stories, but whose argumentative force is beyond our perception.

And then at length we reach the evidence of spiritualism. This is well summed up in Aristotle's words. We translate them in simple astonishment at our author's pretended inability. "It is obvious, that actual occurrences must be possible," says that clear thinker and concise writer, "for they would not have occurred if they had been impossible." The facts in this instance are that a certain Mrs. Hayden, a "well-known American medium," convinced our anonymous preface writer of the truth of spirit-rapping, and also "that the sounds were made *amosgepotically*," a word proposed by him as convenient, but to us utterly mysterious and incomprehensible. It is to be hoped that the Greek translation given above may avert the impeachment of ignorance; and possibly this grand compound may belong to the obscure dialect which produced "Aneroid," "Kalos Gensis sauce," and "Anaxyridian trousers."

In conclusion, it is just to thank so smart a writer, not only for a new etymological sensation, but also for a neat little essay. The work, as a whole, like the fruit at a stall, carries its finest sample on the top. In what we have read there has been nothing to shake the judicious and logical

conclusion of a recent writer in the *Quarterly Review*: Whether spiritualism be true or false, we are as yet justified in suspending our opinion till more decisive evidence is forthcoming.

A System of Instruction in Qualitative Chemical Analysis. By Dr. C. Remigius Fresenius, Director of the Chemical Laboratory at Wiesbaden, Privy Aulic Councillor of the Duke of Nassau. Sixth Edition. Edited by J. Lloyd Bullock, F.C.S. London: Churchill and Sons. 1864. Pp. 355.

We were well acquainted with the first edition of Fresenius when, some years since, we went through a course of laboratory instruction, and took it for our text-book; and the thin, well-fingered volume, scored with pencil-notes, which stands on our shelves, is a memento of its practical usefulness. By its side we are glad to place the new and plumper sixth edition, which has just appeared. The character of the work is established, and we need only say that every new process in *qualitative* analysis is added to it. Whereas the earlier editions left out the *rarer* elements, this includes every known element, although such parts as treat of the rarer ones are put into smaller type. The subject of spectrum analysis, which, as the editor observes, marks a new era, is fully described, and illustrated with a coloured map of the spectrum and the bands produced by various elements.

FOREIGN CORRESPONDENCE.

AMERICA.

Near Rappahannock Station, Va.,
December 17, 1863.

Time has sped rapidly since I wrote you last. Continual marching, and the excitement engendered by an occasional skirmish, have given one no opportunity to observe its flight. Yet among all the varied occurrences that have been coursing pell-mell after each other during the past autumn, comparatively little can be found worthy of narration in the pages of a Medical journal. All the interest of the fall campaign is concentrated in its military manœuvres. My last communication was written while the troops were resting in summer quarters, along the line of the Orange and Alexandria Railroad, with the Rappahannock between them and the enemy. Here they enjoyed a month of much-required repose. Here it was that the army was reinforced by the drafted men or their substitutes, whose advent gave the Medical Officers in the field an opportunity of observing a class of diseases to which, for a long time previous, they had been strangers. A large percentage of the embryo heroes, lugged forward by Columbia to fight her battles, spent the first part of their stay in Virginia in Division Hospital, under treatment for one or other of the forms of venereal disease. I mentioned before, that, while here, regimental Surgeons had no duties whatever to perform; that their sick were removed from their charge, and, having been aggregated at one point, those of a division were placed in the care of a Surgeon and one or two assistants. After a short time, it seemed to strike the heads of the Medical Department that this arrangement left the officers in charge of regiments with no work on hand other than the not very onerous task of sending for an ambulance now and again, in which to dispatch their sick to the newly-formed Hospital; and an order was issued which kept them busy for a few days. For the furtherance of statistics, it was required that a report be handed in, as soon as possible, giving the former occupation, age, height, and circumference of chest of every enlisted man in the command, and of conscripts as they joined. Every one had to measure his men at the same time, and for a few days tape lines, etc., were much above par. However, the thing was speedily accomplished, and a mass of statistical information was added to the immense amount heretofore accumulated in the Surgeon-General's office.

This over, a copy of Hammond's "Military Hygiene" was issued to each regiment upon requisition, and no movements taking place for a week or so thereafter, time was afforded us to scan the contents of the work. A treatise on hygiene was very much required by the Surgeons of this Army. Habituated, before volunteering into the military service, to inattention to the hygienic conditions combining to prevention, great, but unintentional, neglect of duty was in many cases the consequence. They had considered that they had done their duty in prescribing for disease as it presented itself, until the appearance of the Surgeon-General's volume brought them a reminder that prevention is better than cure, and as much their duty.

Here it was, too, that the indefatigable curator of the Army Medical Museum gave a fresh proof of his anxiety for its increase, and his fear lest the excitement and onerous duties consequent on an engagement should cause his institution and himself to be forgotten by some of the operators. He caused vessels of tinned-iron to be issued to the Surgeons-in-Chief of the divisions of the army, who are to be held accountable for their safe keeping. These vessels, each half filled with antiseptic solution, each provided with a padlock and key, and with the name of the division to which it belongs painted upon it, accompany the ambulance trains of the army, when, should a fight occur, their presence would keep alive in the minds of the operative staff the existence of the museum, and would mutely petition for specimens to enrich it. A general order issuing from Medical head-quarters was promulgated at the same time, earnestly impressing upon army Surgeons the necessity of taking advantage of the many opportunities they at present have of collecting and contributing valuable specimens. This, I believe, is the first and only time that the institution has been officially brought before the notice of the Surgeons in the field. Many were unaware of its existence until this order was circulated.

September had fairly begun; the hottest of the hot season in this part of the world had passed away, when the fall campaign was commenced. We broke camp, and, crossing the Rappahannock, marched in the direction of Culpepper Court-house. The march of the first two days was, in a Medical point of view, the most important of any that has since occurred. The weather, notwithstanding the lateness of the season, was most oppressively hot, and the energies of the men rapidly gave way, laden as they were with eight days' rations, in addition to knapsack, woollen and rubber blankets, shelter tent, arms, and sixty rounds of ammunition. Cases of insolation were of very common occurrence; but a heavy thunderstorm swept across the face of the country, leaving behind it an invigorating coolness, which banished sun-stroke from the ranks of the army for the remainder of the season.

Massed in the neighbourhood of Culpepper, the main body of the army, with good soil, water and weather, passed a few pleasant weeks, during which the sight of a sick man was a rarity. But it was otherwise with the advance. The troops forming it lay in the woods which beset the low-lying grounds forming the north bank of the Rapidan, near Rapidan Station. Every circumstance affecting them was of a nature tending to engender disease; and disease was soon rife amongst them. For military reasons it was, I presume, that the different brigades were huddled so closely together. No regular camp was formed. The spot on which the sinks of one regiment ought to have been, was occupied by the camp of another command. The ground was low-lying, and its surface covered more than ankle deep with the leaves which autumn had already thrown from the trees. A smart shower of an hour's duration would yield for two or three successive days six or more inches of a mud formed from vegetable decay, by wading through which the soldiers' feet were kept continually damp, and from which the exhalations of a morning could be seen in the form of a grey vapour, hanging among the branches overhead. Large fires in this location were unfortunately contraindicated, lest by day the curl of their smoke above the tree tops, or by night their lurid glare, should reveal the position to an enemy—so near that his bugle calls and music were plainly audible—and so draw upon it a fire of a less agreeable nature than that which had drawn it. Remaining, however, a few days undisturbed in this position, and hence feeling a sense of security in it, the men braved the danger of the rebel artillery, and made themselves comfortable during the remainder of their stay, at least so far as huge fires could contribute to comfort. Water was scarce, and, what was worse, the little that could be obtained was bad. In addition to this, the mind was kept continually in a state of tension. Scarcely a day passed without some cavalry skirmish, or picket firing on the part of the infantry. Every evening it was set down by the men that to-morrow would be the eventful day—the day on which the passage of the Rapidan would be effected; but as constantly were they deceived. The consequence of all this was, that large squads of sick had every few days to be sent to the rear, to Hospitals established in Culpepper, where like-

wise the wounded in the various skirmishes were being treated. Most of those sent away sick were affected with the same complaint—an insidious and fatal form of fever. The man feels out of sorts for a week or ten days before he takes to bed. He is weak, and has no appetite. His tongue is not dry, but it has a bluish colour, and a grey film is spread over it. His skin is dry, but there is little alteration in the pulse—a little less full and more frequent, perhaps, if diarrhœa be present, or with a slightly marked feverish throb if the bowels be constipated. In this state he may continue for six or eight weeks, feeling at intervals, for a day or two at a time, well, but weak; and then he gradually recovers, or sinks exhausted. But it often runs to a fatal termination more speedily, the pulse never altering much from the natural standard of frequency until life's last hours have arrived, when also, for the first time, the tongue becomes decidedly dry, and the delirium of exhaustion sets in.

The forced retreat from the Rapidan to the vicinity of Centreville, the subsequent advance on Orange Court-house, and the late retrograde move to the Rappahannock, present nothing of interest, nor do the various skirmishes we have had offer me anything worthy of writing about. The wounded at the battle of Bristow, the passage of the Rappahannock, and at the recent affair at Robertson's Tavern, were comparatively few, and of these few the majority were immediately transported for treatment to Alexandria and Washington by rail.

At present we are lying on the south bank of the Rappahannock; and, although no orders have been issued relative to the construction of winter quarters, every man is busily engaged in the erection of a log shanty, in which he fondly hopes to spend in comfort the dreary months of January, February, and March.

GENERAL CORRESPONDENCE.

MORTALITY AFTER LITHOTOMY IN THE METROPOLITAN HOSPITALS.

LETTER FROM MR. HENRY THOMPSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have read with pleasure the papers of Dr. Richardson, relating to Norwich and its Hospital. Interesting as the subject is, all must feel that the interest is increased by Dr. Richardson's graphic style.

There is a statement of alleged fact, however—and a most grave statement, too—which I am compelled to deny—viz., that which Dr. Richardson makes, respecting the mortality from lithotomy in the metropolitan Hospitals. He has assumed it to be, "one death in two cases, or even one in 1.88."

This is a subject respecting which I have made large enquiry, and possess, lying before me at this moment, extensive records. The evidence of this may be seen at pages 228 to 229, and at page 269 of my work on "Lithotomy and Lithotrity," reviewed in your Journal of last week. These there proved—and I am prepared to fully substantiate, if need be—that the average mortality from lithotomy in the male subject at all ages, in the practice of the London Hospitals where reliable records exist, does not exceed one in seven cases, while the Norwich experience is about one in seven and a-half to seven and three-quarters.

In this inquiry, as every one knows who understands the value of figures, it is necessary to deal with numbers as large as possible, and not to be satisfied with the result of a few cases, or of those observed during any short period of time. The result given above is that of the entire experience of the last twenty to thirty years at Guy's, St. Thomas's, and the University College Hospitals, and amounting to 520 cases. If it were right to select two or three years only, I could find some recent years in which the results were better still. No one can be more ready than myself to admit the excellence of the Norwich results. Thanks to the kind courtesy of my Professional brethren there, I have long been familiar with their successful practice, and with that magnificent collection; and I have learned much from their experience. But, gladly and freely yielding all this, a fair comparison must be made between Norwich and London; and this only, I am certain, is desired by my Norwich friends. Nothing less than an accurate statement on so important a point as the metropolitan rate of mortality in lithotomy can be permitted to emanate from so widely-circulated and influential a Journal as the *Medical Times and Gazette*. The superiority of our results in this matter are already admitted in Paris, and no error can be permitted to shake any fairly-earned credit we may possess, either on the Continent or in the provinces.

I am, &c., HENRY THOMPSON.

35, Wimpole-street, Jan. 11.

TOWN AND COUNTRY HOSPITALS.

LETTER FROM MR. T. HOLMES.

[To the Editor of the Medical Times and Gazette.]

SIR,—My attention has been drawn to a paper by Dr. Richardson, in your number of January 9, on the subject of the Norwich Hospital, in which Dr. Richardson lays down the startling proposition (at least he seems to do so), that if the patients with stone at that Hospital had been treated in metropolitan Hospitals, the mortality after lithotomy in their cases would have been increased fourfold. The enormous error on which this assertion rests will be exposed, I believe, by Mr. H. Thompson, the person whose authority will carry most weight on this point. A study of Mr. Thompson's recent work on lithotomy and lithotrity would have preserved Dr. Richardson from falling into the mistake of taking the number of deaths in a few cases of adults in London Hospitals to represent the rate of mortality over all cases of lithotomy in those Hospitals. I need not spend words on so obvious a fallacy; but what struck me even more forcibly in Dr. Richardson's paper, was the exaggerated idea of the difference in salubrity between a town and a country Hospital, which could alone make any writer imagine it possible that a mere change from the country to the town should multiply the deaths after a given operation fourfold. Other circumstances, such as Hospital arrangements, Surgical skill, the constitution of the patients, etc., being assumed to be the same, I should be disposed to draw a very different inference from the real state of the facts which Dr. Richardson has so strangely mistaken, and to argue, that if the difference in the rate of mortality between town and country is so slight as Mr. Thompson's table (*op. cit.*, p. 226) shows it to be, while there is good reason to think that the patients of country Hospitals are in a more healthy general condition than those in the metropolis, the benefits of country situation must, if they exist at all, be only slight. The reality of the advantage of the "fresh air" which is always assumed to surround a Hospital which is called a "country Hospital," over the air, assumed not to be "fresh," in which a London Hospital is placed, is one of the most difficult questions connected with Hospital construction. I have lately had occasion to think carefully on this subject, and have come to conclusions far less positive and far less striking than Dr. Richardson's, but, I venture to hope, supported by more solid foundations. These conclusions have been formed by the examination of most of the Hospitals in Paris and the United Kingdom, and I hope will soon be placed before the Profession. Meanwhile, let me merely say this much,—that it is in my opinion a delusion to believe that the mere situation of a Hospital (unless that situation is decidedly malarious or unhealthy) will have much effect on the general rate of mortality of diseases, injuries, or operations; that the success of Hospital operations depends principally upon the selection of the case (*i.e.*, the constitution of the patient and nature of the disease) and the proper performance of the operation; next, upon the proper ventilation, spaciousness, and cleanliness of the Hospital. Every Hospital Surgeon must know that the success of cases of lithotomy depends principally on the age of the patient, his state of health, and the size of the stone; and that a healthy child, with small stone, will have a far better chance of recovery, though the operation be done in the worst kennel of St. Giles', than a broken-down old man, with a large stone, though it were done in a palace, or on a mountain-top, if that is thought more healthy. The fact that operations succeed better in the country than they do in town, has never been proved; inasmuch as those who have published tables bearing on the subject have never taken the pains to analyse the cases, or, perhaps, have not had the data from which to do so. But until this is done, such statistics are useless, or, as in the case before us, worse than useless—misleading. The differences of mortality between the town and country Hospitals in Mr. Thompson's tables, are not more than exist between Hospitals in the same town which admit patients of a different class, and which, therefore, get patients in different states of disease—as happens in the cases of hernia, admitted into Guy's and the London Hospital at one end of London,

and St. George's at the other. Nor do the tables published in Mr. Teale's book on "Amputation," show any remarkable advantages on the side of country Hospitals in that operation. That cases do better in well-constructed and well-ventilated Hospitals than in those of an opposite character, is a fact which I believe to be capable of proof; and there can be little doubt that the construction of a Hospital is a matter of far more importance than its situation. Now I think that few Surgeons could visit, on successive days, the Norwich Hospital and one of our great London Hospitals (say St. Bartholomew's), and come away with any doubt which is the most eligible place for the treatment of disease. That metropolitan Hospitals are, as a rule, far better adapted for the reception of cases of acute disease than the provincial Hospitals, is a fact which is hardly a matter of opinion, but rather of observation. If, under such circumstances, the practice of the Norwich Hospital were more successful than that of the metropolitan Hospitals, irrespective of the cases they admit, and the patients on whom they practise, it would be a *presumption* (but only a presumption) that this better success was due to the rural situation. But, as far as present evidence goes, this does not seem to be so.

The Medical public appears to be under a very mistaken impression as to the unhealthiness of the London Hospitals. There is nothing to show that the air of London is in the least degree unfavourable to recovery, apart from previous unhealthiness in the patient. Thus, in this very matter of stone, can it be shown that the mortality of lithotomy in *children* is affected by their being operated on in the atmosphere of London? I can only say, that during the fourteen years I have attended the practice of St. George's Hospital, I have never witnessed a death after lithotomy in a child. Would this be so if the atmosphere had so depressing an effect as is surmised? The fact is, that the Hospitals of London receive a different, and a far more acute class of cases from those of country towns, and treat these cases with a success very little inferior to that obtained in the milder cases treated in country Hospitals.

I agree with Dr. Richardson, that good air, and plenty of it, is a good thing for a Hospital; but I think that nothing but harm can be done by rash and exaggerated conclusions from imaginary facts. I am, &c.,

22, Queen-street, Mayfair, Jan. 13. T. Holmes.

SILVER SHOWERS.

Letter from Dr. George D. Gibb.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the report of my case of functional aphonia, brought before the Pathological Society, in your last number, is an error of importance to be rectified. The expression is used of "*showers of powdered nitrate of silver to the larynx.*" This I did not make use of, but employed the phrase "silver showers," which signifies the application of a solution of nitrate of silver in the form of spray. The mischievous results that might ensue if the *powdered* nitrate were employed in the manner attributed to me, is my excuse for troubling you with this letter. I am, &c.

Portman-street, January 11. George D. Gibb, M.D.

CASE OF COMPOUND FRACTURE OF THE TIBIA AND FIBULA, WITH FRACTURE OF THE PUBES AND PERFORATION OF THE BLADDER—RECOVERY.

Letter from Mr. William Townsend.

[To the Editor of the Medical Times and Gazette.]

Sir,—I consider the following case well worthy of insertion in your journal:—On June 20, 1857, a boy aged 17 was caught in some machinery at a paper mill. He had sustained a very severe compound fracture of the middle third of the right tibia and fibula. The tibia was protruding to the extent of several inches; he had also fracture of the pubes with perforation of the bladder. On first seeing the case, my predecessor, Mr. Goodlad, wished to remove the limb; I considered him in too great a state of prostration—in fact, collapse; I therefore placed the limb as in an ordinary case of compound fracture. The following morning I found the boy so comfortable that I considered it only right to give him a chance of saving his leg. I was requested to take sole charge of the case. The catheter was passed twice daily for seventeen days, and then the leg was dressed and put upon a swing splint: for eight days more the catheter was passed twice daily. On September 1, 1857, rather more than ten weeks after the injury, a spicula of bone three quarters of an inch long came away per urethram, after the discharge of about a pint of blood. On September 1, 1859, I removed three and a-half inches of the tibia. In February, 1859, he walked with a stick, and in March, 1859, without either stick or crutch. At the present time the leg is about one-third of an inch shorter than the other, but equally strong.

Remarks.—I attribute the freedom from peritonitis in this case to the fact of the patient being kept on his back and the catheter frequently applied. I should be glad to hear of some similar cases. I am, &c.

William Townsend, M.R.C.S. Eng., and L.S.A., Lond.

36, Bolton-street, Bury, Lancashire.

LARYNGOSCOPY IN CASES OF TUMOUR INVOLVING THE RECURRENT LARYNGEAL NERVE.

Letter from Dr. Gairdner.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have just perused in your Journal of this day, the interesting records of two cases of aneurismal disease, detected mainly by laryngoscopic examination. I am able to add to them a brief statement, not, indeed, of a case of aneurism, but one of tumour, in which this modern addition to our means of diagnosis was of great service. Some months ago, I was consulted in the case of a lady, who for ten years or more had had a moderate-sized goitre-like swelling, closely applied to the lower part of the trachea, and extending into the anterior mediastinum.

As the neck was very short and thick, owing to the obesity of the patient, the diagnosis was rather difficult; and, as a suspicion had formerly existed of disease of the heart, on account of which she had at one time consulted Sir James Clark, there was a further uncertainty as to the cause of her symptoms. These were—1. A degree of difficulty of breathing and cough, almost equally divided as to characters, between thoracic and laryngeal. 2. An alteration in the tone of the voice, and a slightly stridulous inspiration. 3. Expectoration of frothy mucus, just tinged, on one or two occasions, with blood. These symptoms were, for the most part, recent, the goitre having for many years caused her no inconvenience.

I have fully discussed the importance of these symptoms as indicating aneurism, in my "Clinical Medicine," referred to by your reporter. In this instance, no clear evidence of thoracic disease could be detected, except a slight prolongation of the first sound of the heart, which might very well be regarded as functional. I, therefore, viewed the symptoms as probably dependent upon the implication of the recurrent, on one or both sides, in the goitre, or in the surrounding thickening of the cellular tissue. The nature of the goitrous swelling being obscure, and the influence of remedies upon it uncertain, the prognosis was grave and anxious. I need say nothing about the treatment. The sudden death of the patient some time afterwards fully justified the prognosis, and a post-mortem examination rather hastily conducted, but still practically complete and satisfactory, showed that an apparently carcinomatous degeneration of the thyroid gland was the true cause of the symptoms.

The case occurred during Dr. Czermak's visit to Glasgow, and he had an opportunity of examining the larynx during the life of the patient. The parts brought into view by the laryngoscope were all perfectly sound as regards structure and anatomical relations. But the left vocal cord was absolutely motionless in inspiration, and in the formation of the voice. This observation was regarded both by Dr. Czermak and the physicians primarily engaged, as affording complete confirmation to the diagnosis of a tumour implicating the recurrent nerve.

I have for many years habitually employed a rather long forefinger in the exploration of the larynx down to the glottis, and by the method of touch have usually found it easy to acquire valuable information in regard to the state of the vocal cords and arytænoid cartilages in doubtful cases of this kind. I have rarely, if ever, found an exception to the rule, that well-marked laryngeal stridor or cough, with imperfectly closed glottis, indicates a tumour pressing on the recurrent, if the epiglottis and glottis are normal. It is partly

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by giving us greater assurance on this point, and partly by developing the positive proof of inequality of movement on the two sides of the glottis, that laryngoscopy may be expected to assist our diagnosis of a difficult and doubtful class of cases. I am, &c. W. T. GAIRDNER.

Glasgow, January 9.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, JANUARY 5.

Mr. PRESCOTT HEWETT in the Chair.

THIS was the annual meeting of the Society. Mr. Henry Thompson, the Financial Secretary, read the report, from which it appeared that in number of members in average attendance at its meetings, and in supply of important material for its investigation, the Society had never been in so prosperous a state as during the past year. As regards the supply of specimens, the supply had indeed been, if anything, too abundant; and the report extended to the members a gentle caution that they should be careful that the cases brought forward should be not only of interest to the exhibitor, but should be such as to legitimately claim the time of the meeting and the expense of subsequently printing their narratives. In respect to finances, the report stated that during the year a considerable addition had been made to the funded property of the Society.

The adoption of the report was moved by Dr. Johnson, seconded by Dr. Murchison, and unanimously carried.

Mr. CURLING next, in appropriate terms, moved the thanks of the Society to the retiring officers.

Dr. WILKS seconded the motion, which was unanimously carried.

The PRESIDENT next adverted to the fact, that the Society would this year lose the services of one of its highly valued secretaries; and, with a warm eulogium on his long-sustained efficiency in the post he was about to vacate, proposed a special vote of thanks to Mr. Henry Thompson.

This vote having been carried by acclamation, Mr. Thompson replied.

Dr. DICKENSON brought forward specimens from a case of

SUDDEN DEATH FROM OBSTRUCTION OF THE PULMONARY ARTERY.

A young woman was admitted into St. George's Hospital, suffering from ailments supposed to be hysterical. Under ordinary measures she improved, and was about to be discharged, when it was observed that one leg was somewhat swollen. On the same day that this latter symptom was noticed she had a fainting fit whilst in the water-closet, and died before she could be got back to bed. At the autopsy, all the various viscera were carefully inspected and found healthy. On laying open the pulmonary arteries, however, they were found occupied by fibrinous clots, evidently of considerable age, which adhered to the coats of the vessel at parts, and extended even into the smallest ramifications. The femoral vein of the limb which during life had shown slight swelling, was found plugged by a long clot of old fibrin, which extended downwards into the smaller veins. The femoral artery of this limb was also closely plugged for a like extent. It was not easy to assign any cause for the occurrence of these clots. The patient had not sustained any injury; she was unmarried, and her uterus was quite healthy. There was no inflammation of the iliac veins. In explanation of the immediate cause of death, Dr. Dickenson suggested that probably the clots had for long nearly closed the vessel, and that some accidental displacement occurred, and was sufficient to cause complete occlusion. The patient had throughout complained of pain in the chest.

Dr. BRISTOWE mentioned a very similar case which had occurred some years ago under his care in St. Thomas's Hospital. In it, also, the death was quite unexpected. He thought Dr. Dickenson's explanation probably correct.

Dr. GRAILY HEWITT adverted to similar cases occurring after parturition, and inquired as to the state of the uterine veins.

Dr. MURCHISON exhibited specimens from a case of

PYÆMIA WITH NECROSIS.

The patient, a lad, had been admitted into the Fever Hospital with all the symptoms of enteric fever, excepting that there was no rash. He had been ill for ten days previously, and was brought from a neighbourhood where typhus fever was prevalent. Whilst under treatment, abscesses formed with great rapidity in several different parts. One of these was connected with periostitis of one acromion process and necrosis of a small fragment. An acute abscess formed over the middle of the sternum, which had pulsation, and also filled on coughing. After this had been opened, it was found that the sternum was ulcerated and perforated. There was, however, no empyema. The boy died about a month after the commencement of his illness. Throughout there had been no rigors. At the autopsy, the sternum was found, as supposed, perforated, and quite movable at the site of disease. It was roughened over a considerable extent on both surfaces. The left sacro-iliac synchondrosis was also the seat of disease. Its cartilage was ulcerated, and the adjacent bones extensively bare of periosteum. A large abscess existed here both within and without the pelvis. In one lung was a small encysted abscess. In both kidneys were numerous small purulent deposits, but the liver and other viscera were free. Dr. Murchison suggested two hypotheses as to the primary disease: either that the lad had suffered from typhus before his admission, and that the pyæmia was, as is not very unusual, secondary to it, or possibly that the case was one of pyæmia consequent on acute periostitis. Peyers patches were found quite healthy, so that the hypothesis of enteric fever was quite negatived.

Mr. T. HOLMES showed a specimen of

CONGENITAL TUMOUR REMOVED FROM THE NECK.

The patient, a boy, of eight years of age, came under care at the Children's Hospital. The tumour, which was of considerable size, was situated below the ear, and behind the edge of the sterno-mastoid. It had existed from birth, but had latterly begun to grow rather rapidly. It consisted in part of cysts, but chiefly of solid tissue. The fact that it was growing determined Mr. Holmes to remove it, in spite of the deep attachments which it possessed. Its excision was safely accomplished. Mr. Holmes gave the particulars of two other cases, in which congenital tumours of a similar kind had come under his notice. In one the tumour was considered to be too large for safe removal, and the child died. In the other, the position of the tumour, occupying the upper part of the neck and projecting upwards under the tongue, forbad any attempt at excision, and in this also death ensued. He referred to a paper by Mr. Cæsar Hawkins on these tumours, published in the *Medico-Chirurgical Transactions*, and stated that Mr. Hawkins seemed to consider these tumours of less serious moment than, judging from the cases now brought forward, he (Mr. Holmes) was inclined to do.

The PRESIDENT mentioned a case which had been under his care, in conjunction with the late Mr. Keate, some years ago. The tumour was congenital, and occupied the neck of a little girl, extending deeply. It was excised with the exception of one lobe, which, as it adhered to the subclavian vessels, could not be got away. The wound healed well, but some years later the small part which had been left enlarged, and constituted a cyst of great size. This cyst was treated by a seton, and afterwards suppurated. He warned Mr. Holmes that, if in his case any portion had been left, subsequent redevelopment must be expected.

EMPLOYMENT OF VERATRUM VIRIDE IN DIAGNOSIS.—Dr. Percy, in a recent lecture, detailed the great advantage he had derived for some years from the employment of the *veratrum viride* in aid of the diagnosis of diseases of the heart and chest. By preparing patients by means of small doses of this substance, functional disturbances which mask and render obscure the suspected disease are removed or suspended, so as to allow of the characteristic signs becoming discoverable. In this way he has been enabled readily to diagnose cases of incipient phthisis, pleurisy, pneumonia, diseases of the heart, etc., which he never could have had any certainty respecting without this preliminary. The *veratrum* quiets the functional disturbances, lessens the rapidity of the circulation, tranquillises the respiration, and so moderates the activity of these functions that the mind can readily define and arrange the sounds that are communicated to the ear. Dr. Percy thinks that this means will be found of great use to the officers of life insurance companies in cases of doubtful diseases of the chest.—*American Med. Times*, July 11.

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OBITUARY.

FRANCIS BOOTT, M.D. Edin., L.R.C.P.L., V.P.L.S., etc.

THOUGH taking no part latterly in Professional practice, Dr. Boott's death is one which will be severely felt, not only amongst a large society of Medical men, but in the ranks of science generally. Few men were more accomplished and well-informed; fewer still more beloved and esteemed, whether for the power and will to serve or to please, or for the sterling qualities of his mind.

Dr. Boott was born in the year 1792, in Boston, Massachusetts, of British parents, his father being an Englishman and his mother a Scotch lady. His parents being in good circumstances, young Boott, after completing his classical education at Harvard College, was sent over at seventeen to England, that being then, as now, the grand tour to many young Americans. Here his studious habits and literary talents soon led him to form intimacies only with persons of like pursuits; and his habits were thus early copied from models so judiciously chosen, that he ever after regarded these counsellors of his youth as types of refinement and moral worth. For several years he voyaged backwards and forwards between England and America, making life-long friendships in both countries, but especially in this, when Sir Joseph Banks' house offered great attractions to young men, whether of literary or scientific tastes; and where Sir James Smith, President of the Linnean Society, and Mr. (now Sir William) Hooker keenly encouraged his botanical tastes.

In about 1820, when upwards of twenty-eight, already married, he determined upon studying Medicine, and placed himself under the tutelage of Dr. John Armstrong, in London. Thence he removed to Edinburgh, where he finished his education, and took his Doctor's degree in 1824.

On his return to London, he commenced practice, and accepted the lectureship on botany in the Webb-street School of Medicine; this chair, however, though admirably conducted, he did not long hold. He also published his lectures on Materia Medica; and more lately, at the dying request of his friend Dr. Armstrong, he edited his life, and published with it a treatise of his own on "Marsh Fevers," illustrative of Dr. Armstrong's views. This latter part of the work is one of considerable eruditive merit; it treats largely of the fevers of the United States and of Europe, and of the plague, under the several aspects of that disease, which he traced from Egypt and Syria, through Italy, France, and Holland, to England, showing that its type was always that of a periodic fever, but that its symptoms varied according to the climate of the several countries mentioned.

For seven years Dr. Boott practised very successfully in London, being especially noted for his treatment of fevers, in which he followed the practice of Dr. Armstrong in giving abundance of air, etc., to the patient,—a course which, at that time, was vehemently objected to by the Profession at large. In other respects, too, he was a judicious innovator, being one of the first to discard the black coat, white neckcloth, knee-breeches, and black silk stockings, for the ordinary costume of the day. This was then a blue coat, with brass buttons, and yellow waistcoat, which he continued to wear to the last; and thus, by outliving the fashion, as he had forestalled it, he came to be as well known in 1860 as he had been in 1830.

Dr. Boott early retired from practice, and, having inherited a competency, he devoted himself for the last thirty-five years to the cultivation of his literary and classical tastes, to the study of botany, and to the duties of a Member of the Council of University College, and Secretary and Treasurer of the Linnean Society. In the latter capacities, especially, he was most highly respected,—conducting the business of the College and of the Linnean Society with singular tact, skill, and judgment; neither giving nor taking offence; and winning the esteem and cordial support of his brethren in office during a very long period of active and gratuitous services. Of the Linnean Society especially he seems to have been a distinguished member, no less for the disinterested zeal with which, as a personal friend of its founder, Sir James Smith, he devoted himself to its financial welfare, or as a cordial friend of science and scientific men, interested like himself in its meetings and publications. His portrait hangs on the Society's walls, and his blue coat and bright buttons are with many inseparably connected with its meetings.

Dr. Boott's botanical labours were entirely confined to the study of the great genus *Carex*, of which upwards of 600 species are known, and in which he took the keenest interest, spending many hours daily in analysing them, and laying out large sums of money on their illustrations. Much of his labours have seen the light in a large folio work, in two volumes, containing upwards of 400 plates and descriptions of *Carex*, all produced at his own expense, and distributed with a lavish hand amongst English, European, and American botanists. This is, indeed, a magnificent work, and will immortalise its author. To it, however, we regret to add, the curtailment of his life is in some measure undoubtedly due, the close application necessary for its successful elaboration having materially tended to enfeeble his never very vigorous frame. The immediate cause of his death was disease of the right lung, induced by pneumonia, of which he had two severe attacks, one in 1839, which permanently injured his health, and prevented his undertaking any very laborious exertion thereafter, the other in June of the past year, from which he never rallied, and of which he died on Christmas-day, at the age of seventy-one years.

In person, Dr. Boott was very tall and thin. His manners were singularly pleasing, and his expression refined in the highest degree. His countenance was, indeed, very much a reflex of his mind, which was singularly polished, cultivated, and sensitive. Nothing delighted him so much as companionship with the young, to whom his kindly manners, generous sympathies, and considerate conduct much endeared him. His love of art was no less strong than of literature and science. His house was full of excellent and always-pleasing pictures, and his large library was as select as possible. In connexion with literature, a most characteristic act of his was to erect a tablet to the memory of Henry Kirke White, of whom and whose family he knew nothing personally, but whose life and poems he ardently admired, and to whose memory no tribute of the kind had been paid.

Such is a meagre record of the life of a man whose death is felt by a large circle as a personal loss, and who was, in every sense, an ornament to the Profession of Medicine.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, January 7, 1864:—

Joseph Morris, Birmingham; Joseph Smith, Lozells, Birmingham; Henry McKenzie Parkes, Guy's Hospital; George Elkington, jun., Birmingham.

The following gentleman also, on December 31, 1863, passed his First Examination:—

Richard Rothwell Daglish, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BURKE, WILLIAM M., M.D., has been appointed Medical Registrar for Ireland.

CLELLAND, JOHN, M.D., has been appointed Professor of Anatomy in Queen's College, Galway.

EADE, PETER, M.D. Lond., has been appointed Physician to the Jenny Lind Infirmary for Sick Children, Norwich.

FERNANDES, A. L., M.R.C.S. Eng., has been appointed Resident Medical Officer to the Sheffield General Infirmary.

GIBSON, R. E., M.R.C.S. Eng., has been appointed Surgeon to the Jenny Lind Infirmary for Sick Children, Norwich.

OWLES, JAMES A., M.D. St. And., has been appointed House-Surgeon to the Hospital for Women, Soho-square, W.

PATERSON, WILLIAM, M.D., has been elected House-Surgeon to the Chorley Dispensary.

RITCHIE, ROBERT P., M.D. Edin., has been elected Physician to the Hospital for Sick Children, Edinburgh.

SEABROOKE, WILLIAM, M.R.C.S. Eng., has been appointed Resident House-Surgeon to the Brighton and Hove Lying-in Institution.

WHITE, CHARLES, M.R.C.S. Eng., has been appointed Surgeon in Ordinary to the Dispensary, Warrington.

DEATHS.

COBY, SAMUEL S., M.R.C.S. Eng., at Bridport, Dorset, on December 17.

CROW, J. W., M.R.C.S. Eng., Staff Assistant-Surgeon, Army, at Madeira, on December 2.

EVANS, WILLIAM, F.R.C.S. Eng., at Broomfield-house, Herne, Kent, on December 30, aged 47.

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FOSTER, SAMUEL, L.R.C.S. Edin., at Northwich, Cheshire, on December 16.
HANNAH, JAMES LEE, M.D., at Pavilion-parade, Brighton, on January 10.
HARMAN, EDWARD B., M.D. Edin., at Weeting Rectory, on January 6, aged 62, late of Pembridge-place, Bayswater.
HASLEWOOD, GEORGE D., M.R.C.S. Eng., at Cradley-heath, Stourbridge, on December 30, aged 64.
HOBART, S. HENRY, M.B., T.C.D., at Marlborough-street, Cork, on January 9.
JAMES, JOSEPH W. W., L.R.C.P. Edin., at 25, Nelson-terrace, Stoke Newington, on January 9, aged 37.
NEWBIGGING, PATRICK S. K., Surgeon, at 29, Heriot-row, Edinburgh, on January 10.
O'MULLANE, A., M.D., at Bourke-street West, Australia, on October 21, aged 51.
PENBERTHY, JOHN., jun., M.R.C.S. Eng., at Redruth, Cornwall, on December 17, aged 29.
SARGINT, RICHARD, M.B. T.C.D., at Clonmel, Ireland, on January 4.
STAIG, JAMES A., late Surgeon, Bengal Medical Staff, H.M.E.I.C.S., at 6, Clifton-terrace, Maida-hill, W., on January 8, aged 52.
THOMSON, D., M.D., at Abbotsford-place, Glasgow, on December 27, aged 82.
WILSON, ROBERT, M.D. St. And., at Elmbank, Dunoon, Argyleshire, on January 3.

WEST LONDON HOSPITAL.—Several changes have occurred at this Hospital during the past few months. Dr. Gibb and Mr. Christopher Heath, who were appointed to the Westminster Hospital, have been succeeded by Dr. Logan and Mr. W. F. Teevan; whilst the offices of Junior Physician and Junior Surgeon, vacated by these last-named gentlemen, are now filled by Dr. Maudsley and Mr. Fairlie Clark.

NEW TERMS.—The rapid progress of science naturally compels the frequent coinage of new terms; but this procedure becomes somewhat ridiculous when applied for the unnecessary multiplying of designations. The last specimen of this kind which we have observed is "Puériculture," employed by M. Caron, at the Medical Congress at Rouen, to designate "the science which teaches the mode of bringing up children."

THE PRUSSIAN UNIVERSITIES.—In the summer of 1863, the following were the number of Medical Professors and Students in the Prussian Universities:—Griefswald Professors and Privat-Docentes, 14; Students, 190: Halle Prof. and Priv. Doc., 15; Students, 83: Breslau Prof. and Priv. Doc., 22; Students, 130: Königsburg Prof. and Priv. Doc., 14; Students, 116: Berlin Prof. and Priv. Doc., 49; Students, 357: Bonn Prof. and Priv. Doc., 18; Students, 122. The entire number of the Teachers was 132, 50 being Ordinary Professors, 20 Extraordinary Professors, and 62 Privat-Docentes. The Medical Students were 998, 907 being natives, and 91 foreigners. The entire number of the students of these Universities amounted to 6309 (829 of this number being foreigners), so that the Medical Students constitute 15·8 per cent. of the whole.

RABIES IN BERLIN.—The Berlin police has published a statement in order to show the great efficacy which the plan of muzzling dogs exerts in the prevention of the spread of rabies. This plan was commenced being carried out at the end of 1853, since when the number of cases coming under the cognizance of the police has vastly diminished. Thus, in 1852, the number of cases of rabies reached 107, and in 1853, 94; while, since this latter year, they have occurred in the following numbers:—1854, 1; 1855, 3; 1856, none; 1857, 2; 1858-60, none; 1861, 5; 1862, 2; and 1863, 10. It is, however, to be feared that epidemic influences have been here, in some part, overlooked; for in the years 1846-51 there were nearly as few cases observed, although police interference did not then exist.—*Preuss. Med. Zeit.*, No. 48.

BONE-SETTER v. DOCTOR.—The Committee of the Newport (Ireland) Dispensary met, last week, to investigate a charge of malpraxis, preferred by Mr. Twiss, one of the committee, against Dr. Harris, one of the Medical Staff. The charge was, that Dr. Harris had said that a boy's "arm was neither broken nor dislocated;" and, further, that the Doctor had entered the case in the Medical Registry as a "contusion of the elbow." Mr. Twiss' "witnesses" were—Mr. Webster—his dictionary—brought to prove somehow, we suppose, that the injury could not have been a contusion, and to "show the committee the meaning of the word;" the lad's father, "a respectable farmer," who had "found the spindle of the elbow out of place;" and Delany, who "had been a bone-setter since he was born, and his generation before him." He had spurned the Doctor's lotion, as being as useless as "so much ditch-water;" "he got some soft water" (in this country ditch-water generally *is* soft water), "and laid the inflammation in two minutes, and set the bone (by aid, we suppose, of the soft water) in three." The committee declined to receive Mr. Webster's evidence altogether, and would only hear the bone-setter at the request of Dr. Harris, who, probably, thought it would be a pity to lose the fun of it. The boy's mother gave evidence of the Doctor's "careful examination" of the case, and his attention to it. The committee declared that they would not take the opinion of fifty quacks against the Doctor's opinion, and resolved that his statement was most satisfactory and conclusive. We are happy to compliment the committee on their intelligent and strenuous support of their officer. Such conduct on the part of a managing committee is, unfortunately, somewhat rare, and redounds to their honour.

ADVERTISING QUACKS.—A GOOD JOKE.—The following has been sent us by a correspondent, who assures us that it is literally true. The "Dr." is a well-known advertising quack:—"Some little time since the *pseudo* 'Dr.' sent his filthy pamphlet, entitled 'Spermatorrhœa,' etc., to the private residence of a friend of mine, himself a Medical man. Of course the quack pretends to detect spermatorrhœa by an examination of the urine, and this is one of his directions—'Those having doubts as to their state of health are invited to enclose twelve postage stamps, when a phial, fitted in a box, will be sent (prepaid), in order that the same may be filled with fasting urine, and returned to the author, who will make the usual microscopical and chemical tests, and transmit his opinion of the case free of cost.' My friend forwarded the required stamps, and he received a 'phial,' which he returned filled with horse's urine, and in a few days he received the following most impudent letter, signed by the 'private secretary':—'Having microscopically and chemically examined your urine, and also well considered your case, I am decidedly of opinion that your health is critical, and, unless immediately attended to, impotency and its concomitant evils must ensue. At the same time I am glad to state that your health (mental and physical) can be restored, provided you adopt the means which I have found so eminently successful in similar cases. The treatment required in your case will be 'local and constitutional,' therefore a curative instrument is most essential. If the means are applied as directed I can guarantee a cure.—Yours, etc.'—The 'curative instrument' is, of course, an 'American machine' for the cure of spermatorrhœa, price three guineas."

A SUPERNUMERARY EYELID.—In the normal condition the conjunctiva forms at the large angle of the eye a semilunar fold representing a kind of rudimentary eyelid; and in certain subjects a supernumerary eyelid has been found at the smaller angle of the eye, formed by a thin, triangular fold of the conjunctiva. M. Dubois has figured such a case in the *Annales d' Oculistique*, vol. xxxiv., and at the external angle of the eyelids a fold of the conjunctiva, which extended half a centimetre in front of the conjunctiva, to which it did not adhere, constituting a fourth eyelid. M. Fano presented a somewhat similar case at the recent Ophthalmological Congress, occurring in a child four months old. No other anomaly was observed either in the visual or other organs. On the right side, in front of the external half of the sclerotic, there was observed a semilunar fold, with its concavity turned inwards, which projected much more when the lower eyelid was depressed. When the eye was rolled inwards, the fold rolled with the globe; but as it never reached so far as the circumference of the cornea, it did not interfere with vision.—*Ann. d' Oculistique*, 1863, No. 1.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Fraser and Andrews' Fund.—The following subscriptions have been received at the office of the *Medical Times and Gazette*:—Messrs. Churchill, £3 3s.; Dr. Dyer, £1 1s.; Dr. Tunaley, £1 1s.; Mr. Pearse, £1 1s.; Mr. Dingley, £1 1s.; Dr. Bissett Hawkins, £2.

Mary Nothing should go to another gin-shop, or else turn teetotaller.

R. H.—Degrees of Ph.D. are granted by the Philosophical Faculties of all German Universities. The Tubingen degree is easiest to procure, and the fee for it is only about £9. The most valuable is the Berlin degree, which is only granted to candidates after having written an essay of merit on some philosophical subject in Latin, and after a rigorous examination in the different branches of philosophy, both *viva voce* and in writing, also in Latin. The fee for the latter degree is about £25.

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"*The Eight Hundred Fevers!*"—Mr. Syme was evidently duped by a student into making this absurd statement regarding Dr. Laycock's nosology. He now has corrected the error, and "understands there are only 600." He is still wide of the mark, and only exposes himself to damaging criticism by adopting such wild, second-hand information.

A Constant Reader.—The Act states that the carman is not bound to weigh any quantity of coals less than 560 lbs., and that the distance at which the coals are delivered must not be more than 25 miles from the Post-office, St. Martin's-le-Grand. In provincial towns beyond this radius the carman is not bound to weigh.

Medical Advertising.—The following is from the *Liverpool Mercury* of the 9th inst. We do not find Mr. J. Pearson, of 66, Great Howard-street, in the Register or in the Directory. For the credit of the diplomas appended to the name, we hope that one of the "oldest Practitioners" in Liverpool is as mythical a personage as the "oldest inhabitant":—

"THE KNOWLEDGE OF A DISEASE IS HALF ITS CURE!—Consult J. Pearson, Surgeon, M.R.C.S.L., L.A.C., one of the oldest Practitioners in Liverpool, at the Medical Hall, 66, Great Howard-street. Advice gratis between the hours of ten and twelve a.m. and six and eight p.m. Resident Surgeon. —Proprietor, J. Bebbington."

Erratum.—In Professor Simpson's lecture on Acupressure, p. 27, *for* "Dr. Turner, of Leith," *read* "Dr. Turner, of Keith."

A CAUTION.—CAVEAT EMPTOR.

Is there a devil? 'Tis supposed there is,
And men believe in the hypothesis;
Most will emphatically answer—"Yes."
How true those words which whining school-boys learn by
Rote—Descensus facilis Averni,—
Sed revocare gradum, labor est, (a)
Say visitants, and they, *of course*, know best!
May Pluto's shades, grim, gloomy Tartarus,
Never be visited by one of *us!*
Perhaps his majesty satanic can
Claim as his own that diabolic man,
The shameless, advertising charlatan.
Though devil's work he *now* does well and fast,
Satan, ungrateful, may forget the past,
And turn against his *quondam* friend at last.
Those advertising quacks who live by gammon,
And, both by day and night, hunt after Mammon,
May be requited for their deeds of evil,
And be consigned to their dear friend, the devil.
Many there are who, failing to repent,
May find themselves in this predicament.
Quacks, by the aid of many a decent journal,
Disseminate obscenity infernal.
Such journals aid, unwittingly, those scamps
Who advertise their filth for "postage stamps."
The stamps are sent by hypochondriacs,—
Most pitiable men,—half maniacs,—
The best of patients for designing quacks;
And nerveless valetudinarians
Become the dupes of these barbarians.
No sooner is the filthy trash received
Than it is read, and—worse than read—believed.
A medley 'tis of filth, mendacity,
Pledging—not much—the quack's *veracity*,
His *honour*, ay, and e'en his *reputation*,
To effect a speedy, perfect restoration.
His honour, truth, and reputation! pooh!
Where is the pawnbroker, I wonder, who
Would on such merchandise advance a *sou?*
Of course, the reader finds *his* case recorded,
But overlooks this fact, that quacks are sordid;
And thinking their *one* statement is sincere,
Namely, that they possess a panacea,
He sends his fancied case—he sends a fee—
"M.A.," factotum, answers *pro* "M.D."(b)
Thus he begins his cant, by way of preface—
"I've well considered your distressing case
(In phrases stereotyped he writes to all)—
Your case, indeed, is very critical;
And, failing to adopt my means of cure,
I fear, in your case, what you dread is sure.
Still, there is hope if you adopt my means—
Buy one of my '*American machines*,'—
A means, as curative, the most potential,
And, I may add, in your case, most essential.
Adopt this plan, then; on my reputation,
I guarantee your speedy restoration."
His other machinations would, if told,
Prove that he has an "itching palm" for gold.
O, heaven! that such companions thou'ldst unfold,
And put in every honest hand a whip—
(Their "withers are unwrung" by censorship)—
"To lash the rascals naked through the world,"
That they to infamy might all be hurled!
Need it be said, if men will trust such scamps,
They'll rue the day they sent their "postage stamps?"
'Tis better far to bear the ills they have
Than be the dupes of a designing knave.
Ab uno disce omnes, anglicised,
Means, men will by one and all be victimised;
And he who does become these fellows' dupe,
Will be a most egregious nincompoop.

ANTI-QUACKERY.

(a) *Facilis descensus Averni, sed revocare gradum, hoc opus, hic labor est.* The fiction may be realised in its application to every mortal soul.

(b) These "honourable men" all style themselves "M.D.," and they also keep a "private secretary," generally a "M.A.," whose *letters* are unquestionably true, as he is undoubtedly a Master of *Arts*.

LIME IN SUGAR.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you allow me a little space to say a few words on the subject of lime in all sugars, refined and raw? In the colonies, no juice is boiled without so much temper lime. Such can never be thoroughly extracted. (The more one studies chemistry, the more will this fact be found true.) A young chemist here urges the scooping out the pith of the cane before squeezing. Such would require a process of first splitting the cane in two or three; then vacuum-pans of fireclay would be a great additional improvement to aid the boiling and concentration of juice. Sugar consumers get tartar on their teeth, and calculus shows itself at times in urine, etc.; and more from lime in sugar than from most other sources.

I am, &c.

Bute-road, Cardiff. C. M. DICK, late Sugar Planter in Trinidad.

THE MEDICAL REGISTRATION ASSOCIATION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—May I request a small space in your paper once more to call the attention of the Profession to what I cannot help considering a great stain upon our honour and liberality? I allude to the debts still remaining on account of the Medical Registration Association. These debts, it must be remembered, were incurred in a laudable attempt to render the Medical Act of some *real* use to the Profession generally, and not for the advantage of the Committee. It does seem hard, therefore, that those who took an active part (especially our respected treasurer) should be subjected to the annoyance of receiving writs, summonses, etc., on account of these outstanding liabilities. The appeal made some time since was so feebly responded to, that at a meeting of the Committee last evening it was determined to endeavour once more to urge upon every member of the Profession the necessity of giving as freely as possible, in order that this stigma may no longer rest upon us. I trust we may also hope for the great benefit of your powerful advocacy, for in a matter of this kind we must depend in a great measure upon the kind and liberal support of the Medical press. I am, &c.

20, Cross-street, Islington, Jan. 9. N. H. CLIFTON.

Subscriptions may be sent to J. Lavies, Esq., 5, Great George-street, Westminster.

SYMM *v.* FRASER AND ANDREWS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am sorry to find that Dr. Tunstall has written you another letter necessitating a reply from me, which, however, I shall endeavour to make as brief as I can. He says, the business of the police inspector at Bath "was to find the whereabouts of a tenant of Dr. Fraser's," and further on he adds, "the same means employed to find the runaway tenant would easily have discovered the names of Mrs. Symm's Medical attendants at Bath." The inference from these observations is, that I either employed, or knew of the employment of, the means alluded to. I therefore wish to state, that such an insinuation has no more foundation in fact than that "travelling gout," or moonshine, was the cause of Mrs. Symm's illness. I employed no means to discover Mrs. Symm's "whereabouts." I could have had no motive for doing so: she was no "runaway tenant" of mine, having always paid her rent punctually, and when she went to Bath left her house full of furniture; but as it was not securely fastened up, and strange rumours were circulated in the neighbourhood respecting Mrs. Symm's disappearance, the London police took the matter up, and communicated with Mrs. Symm through the police at Bath. But neither my solicitor nor myself knew anything of this until the second day of the trial, on the afternoon of which day we received a telegram from Bath, describing the sad condition in which Mr. Bond, the inspector of the Bath police, had found Mrs. Symm on January 22, 1862, two days before Dr. Tunstall saw her; and from the details of what passed when Mr. Bond saw the plaintiff, I have no hesitation in saying, that I have far more confidence in the correctness of his etiology and diagnosis on the 22nd than in that of Dr. Tunstall on the 24th, especially as, since the trial, I have heard the opinion of another Medical Practitioner, under whose care Mrs. Symm was after consulting Dr. Tunstall, but whom she very prudently did not subpœna to give evidence.

Dr. Tunstall says, "I knew nothing of the presumed facts of the case until I arrived in London, in obedience to subpœna." Such being the case, it is very surprising that, when Mrs. Symm called on me in February, 1862, more than twelve months before the subpœna was served, she told me she had consulted "two Doctors in Bath," and narrated to them the particulars of her illness, etc., in London, and that they said she had been most improperly treated,—that her illness had not arisen from drink, but was occasioned by gout.

I am fully aware of the many obscure symptoms presenting themselves in a patient with a gouty diathesis. I also know that, *when* such a diathesis exists, many symptoms, the cause of which is difficult to ascertain, are ascribed to suppressed gout; but I have yet to learn that the usual condition of a person after an attack of delirium tremens, and a subsequent free use of stimulants, may be reasonably mistaken by any experienced Practitioner for "travelling gout;" and when such a purely visionary theory is brought forward in a court of justice, in a case where, if credited, it might injure another professional man, and in the face, moreover, of the most indisputable evidence as to the cause of every symptom under which the patient laboured, I maintain that such conduct is highly reprehensible; and in this opinion I know I am supported by every right-thinking member of the Profession.

In justice to Dr. Tunstall and myself, I wish to point out an evidently unintentional error contained in his letter. He says, "Dr. Fraser has every reason to congratulate himself that the course of justice was not affected by his forcible advocacy of a bad cause." Dr. Tunstall, no doubt, intended the word "his" to apply to Mr. Chambers, whose name is mentioned in the immediately preceding lines.

I am, &c. D. FRASER, M.D.

15, Harrington-square, January 12.

"AUDI ALTERAM PARTEM."—THE CASE OF CANDLER *v.* PEAT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Had it not been for the interposition of numerous friends I should not have condescended to notice the attempts made in newspapers to lead the Profession and the public to believe that I was a party to the institution of this action, in which I have always studiously avoided interfering.

Having put myself in communication with Mr. Bennett, my former assistant, I received the accompanying letter, which fully explains the facts, and which, I think, should satisfy the Profession and the public

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that I had no wish to appear in the case, but did everything in my power to keep out of the contention.

Regarding the letter I wrote to Mr. Bryant on March 27, 1863, I have merely to state that, in doing this, I was solely actuated by pure motives for the benefit of suffering humanity; that my only object was to ascertain if he could suggest any further mechanical contrivance for Candler's relief; and that the communication was a confidential one to Mr. Bryant as a consulting Surgeon, which, I understand, was demanded from him previous to the trial, although not produced in court, and published, not only without Mr. Bryant's sanction, but after such had been asked and refused. This, the accompanying note from Mr. Bryant, will sufficiently prove.

Having said thus much in order that I might free myself from the imputation attempted to be impressed on the minds of my Professional brethren and the public, I have merely to add that I shall not enter into any further correspondence on the subject, having now given, once and for all, an emphatic denial to the unwarrantable charge against me.

Trusting you will find a space for these communications in your Journal, I am, &c.

Manningtree, Essex, January 12. JAMES HENRY SMITH, Surgeon.

(Copy of Mr. Bennett's letter.)

"Chesham, Bucks, January 11, 1864.

"My dear Mr. Smith,—I was very sorry to see this morning that it is attempted to impress on the minds of the Profession and the public that you were the instigator of the trial of Candler *versus* Peat. Being your assistant at the time, and as I happened to be the person who answered Candler's summons to attend him, I must be allowed to have a knowledge of the facts of the case. Now, I think it right that I should explain to the Profession that you always expressed your unwillingness to have anything whatever to do with Candler's case, and, when you heard that an action was pending, you at once expressed your determination not to have any concern in the matter. More than this, you repeatedly sent me to tell Candler that you would neither appear in the case nor have anything whatever to do with it. On my first visit to Candler, he told me that he accidentally met a legal gentleman, who had occasion to come to Mistley, who asked him why he was lame, and on Candler telling him of his case, he (the lawyer) asked him why he did not make the Surgeon pay for it, as he was sure he could recover damages. This, I believe, was the first instigation of the action. I am also aware that you did not fully examine Candler's foot, but referred him to several other Surgeons. The above ought, I think, to prove to the public that you endeavoured in every way to keep out of the matter, as I am confident you did.

"Your frequent visits to Candler's house in attendance on his son might possibly lead the people in the neighbourhood to suspect that you were encouraging Candler to bring this action, of which I know you to be perfectly innocent. I send you this letter, and you can use it if you think proper. With kind regards, I remain, yours faithfully,

"J. H. Smith, Esq." "HUGH BENNETT.

(Copy of Mr. Bryant's letter.)

"2, Finsbury-square, January 11, 1864.

"Dear Sir,—Your partner, Dr. Cook, has just called on me respecting the publication in some papers of a private letter I received from you on March 27, 1863. I have no hesitation in stating that such a thing has been done without my sanction. Yours truly, THOMAS BRYANT.

"J. H. Smith, Esq."

COMMUNICATIONS have been received from—

A CONSTANT SUBSCRIBER; JOHN FOSTER, Esq.; T. RULE, Esq.; Dr. J. F. MINER; Dr. CHARLES KIDD; Dr. TURNER; ANTHROPOLOGICAL SOCIETY; C. M. DICK, Esq.; T. J. WALKER, Esq.; Dr. ALTHAUS; THE YORK STAR; Dr. CHARLES SMART; APOTHECARIES' HALL; Mr. H. STANLEY GALE; Mr. J. RICHES; Mr. W. RIDDELL; Dr. E. G. WAKE; Dr. E. ROBERTS; Messrs. ROBINSON and KNIGHT; Dr. W. T. GAIRDNER; ROYAL INSTITUTION; T. HOLMES, Esq.; HARVEIAN SOCIETY; A CONSTANT READER; THE ANTI-TRANSPORTATION LEAGUE; HENRY THOMPSON, Esq.; Mr. BATTERSLEY; Mr. R. L. BENGLEY; Dr. J. DEANE; Mr. F. H. JERVIS; THE JUNIOR MEDICAL SOCIETY; Dr. J. RATTRAY; Mr. T. J. STARLING; Dr. R. ADAMS; Dr. R. LEYS; Mr. R. CRAVEN; Mr. R. W. MARTYN; Mr. T. S. BOURNE; Mr. T. NICOLL; Mr. J. J. CLAPCOTT; Mr. C. DANDY; Mr. J. W. GREENWOOD; Mr. J. H. LAMBRICK; Dr. GRIGOR; Dr. J. R. THOMSON.

BOOKS RECEIVED.

Edinburgh Veterinary Review. January, 1864. Edinburgh: Maclachlan and Co.

*** Contains, as usual, much to interest the general Medical students as well as those engaged in the Veterinary branch of our art.

Homes without Hands. By the Rev. J. G. Wood, M.A. Part I. London: Longman and Co.

*** An interesting account of the habitations and the life and manners of moles, rabbits, prairie dogs, and other animal-builders.

A Manual on Extracting Teeth, etc., etc. By Abraham Robertson, D.D.S., M.D. Philadelphia: Lindsay and Blakiston. 1863.

*** This is a sensible and practical little work on a branch of dentistry usually rather hurried over by systematic writers.

Transactions of the Odontological Society. Vol. III. London: 1863.

*** A bulky volume, exceedingly well got up, and containing, besides woodcuts, some beautiful engravings by Bagg, apparently on steel. It embraces the years 1861-2 and 1863, and consists of communications on most important subjects in connection with dental pathology and Surgery.

The Social Science Review. New Series. No. 1. January, 1864.

*** This, the first number of a new periodical, edited by Dr. Richardson, whose powers of literary labour seem perfectly superhuman, is of considerable interest, and we cordially recommend it to our readers. Its contents are not strictly Medical in character.

A Manual of Phonography, or Writing by Sound. By Isaac Pitman. Eleventh Edition. London: F. Pitman, 20, Paternoster-row.

*** The English language has some sounds with no simple letter to match, and more than one letter to some sounds. Mr. Pitman will show how to adapt to each sound some letter or sign of so simple a character that the pen may trace them as fast as the mouth can utter them.

The Half-Yearly Abstract of the Medical Sciences. Vol. XXXVIII., July to December, 1863. London: Churchill and Sons, New Burlington-street.

*** On comparing together Ranking's and Braithwaite's well-known half-yearly abstracts, we are puzzled as to which deserves preference. Ranking's is rather fuller, Braithwaite's possibly a little clearer; but both are good, and if the Practitioner be in any doubt, he should buy both.

Edinburgh Medical Journal. January, 1864. Edinburgh: Oliver and Boyd.

*** Mr. Syme's recent Observations on Medical Education; a good series of notes as to Veratrum Viride, "Tinct. Boleti Laracis Canadiensis," Sarracenia Purpurea, and Carbolic Acid, showing the small value of the three former drugs, by Dr. J. Watson; a valuable paper on the Source of Hæmorrhage in a Case of Fibrous Tumour of the Uterus, by Dr. Matthews Duncan; and some reports as to Acupressure; with Reviews and general news, make up a capital number.

The American Journal of Ophthalmology. Vol. I. New York: Baillière Brothers. 1863.

*** The Editor, Dr. Homberger, remarks, that "the publication of a new journal, in the midst of a great civil war, devoted to a specialty neglected in a country where hitherto the names of specialist and empiric were identical, by an editor who is not entirely master of the language in which he publishes his journal, and independent enough, from the very outset, not to stoop to advancing the interests of the journal by placing it under the protection and influence of a clique, was certainly, from the beginning, not a very promising enterprise." It appears that the periodical has hitherto been irregular in its issue, but will, for the future, be regularly brought out trimestrially.

Observations on the Present State of Medical Education, with Suggestions for its Improvement. By James Syme, F.R.S.E. Edinburgh: Edmonston and Douglas. 1864.

Consumption: its Causes, Prevention, and Cure. By Shepherd Fletcher, M.D. Manchester: D. Kelly. 1864.

Pharmaceutical Journal. January, 1864. London: John Churchill and Sons.

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 9, 1864.

BIRTHS.

Births of Boys, 988; Girls, 928; Total, 1916.
Average of 10 corresponding weeks, 1854-63, 1814·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	877	921	1798
Average of the ten years 1854-63	686·3	694·0	1380·3
Average corrected to increased population..	..	..	1519
Deaths of people above 90	..	..	9

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	2	3	6	1	4	5	..
North ..	618,210	3	7	24	2	13	18	1
Central ..	378,058	1	2	9	1	8	8	3
East ..	571,158	1	3	12	..	9	22	1
South ..	773,175	3	13	23	5	14	22	3
Total ..	2,803,989	10	28	74	9	48	75	8

APPOINTMENTS FOR THE WEEK.

January 16. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

18. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.
MEDICAL SOCIETY OF LONDON, 8½ p.m. Meeting.

19. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.
ANTHROPOLOGICAL SOCIETY OF LONDON, 8 p.m. R. Lee, Esq., B.A., M.R.C.S., and T. Bendyshe, Esq., M.A., "On the Extinction of Races."
JUNIOR MEDICAL SOCIETY OF LONDON (King's College, Strand), 8 p.m. Mr. Powler, "On Pyæmia."
PATHOLOGICAL SOCIETY, 8 p.m. Meeting.
ROYAL INSTITUTION, 3 p.m. Professor Tyndall, "On Experimental Optics."

20. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.

21. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.
ROYAL INSTITUTION, 3 p.m. Professor Tyndall, "On Experimental Optics."

22. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.
ROYAL INSTITUTION, 8 p.m. W. R. Grove, Esq., Q.C., "On Boiling Water."

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ORIGINAL LECTURES.

CLINICAL LECTURES ON THE DISEASES OF WOMEN,

By J. Y. SIMPSON, M.D., F.R.S.E.,
Professor of Medicine and Midwifery in the University of Edinburgh.

ON ACUPRESSURE.

(Continued from page 56.)

Second Objection.—Acupressure only Adapted for Occlusion of Small Arteries.

Professor Erichsen, in his admirable treatise on "The Science and Art of Surgery," states that, though acupressure is, in the case of small arteries, "unquestionably a safe as well as a convenient and easy method of suppressing bleeding," but "for arteries of large size, as the femoral, it yet remains to be shown that acupressure can be depended upon as a mode of restraining hæmorrhage equally safe with the ligature." Already, however, acupressure has been repeatedly employed in stopping hæmorrhage from the largest vessels ever opened in wounds, and that as readily, and as successfully, as from the smallest bleeding arteries. It has been used repeatedly in all the larger amputations. I know of at least ten cases of amputation of the thigh in which the femoral and all the other arteries of the stump were secured by acupressure.

Third Objection.—Great Number of Needles sometimes Required.

I have heard it urged that some wounds, as amputation wounds, and especially where the operation has been performed for some pathological disease, the number of bleeding arterial orifices is sometimes too great to allow of acupressure being employed. Loder, Cloquet, and others have described cases where sixteen, and even twenty, ligatures have been found necessary after amputation. Sixteen or twenty points in which the Surgeon voluntarily set up a process of local strangulation and sphacelation, of ulceration and suppuration; and twenty ligature or seton threads tied to these points! What chances are there of such a wound going on prosperously and successfully? If sixteen or twenty needles were ever requisite, their use, at all events, would be followed by no such unfortunate local lesions as the ligature inevitably produces. But, in such cases, acupressure further presents advantages that can scarcely be claimed for the ligature, for one needle is occasionally capable of staunching the flow of blood from two or more separate orifices. In proof of this, I might refer to Case 1; or let me adduce another instance from the practice of a most able and accomplished provincial Surgeon, Mr. Dix, of Hull.

Case 11.—*Amputation of the Arm.*—The operation was necessary to save the patient's life, on account of severe and old-standing disease of the elbow-joint, etc. The patient was himself a very unhealthy, ill-conditioned subject, and prone to suppuration. Eight vessels were secured by the acupressure needles. One of the needles was made to compress two vessels in the posterior flap, at some distance apart. The two needles placed in the anterior flap closed three arteries. The last of the needles was not withdrawn till five days after the operation. During the healing of the wound the whole amount of purulent discharge did not exceed two drachms, and this came exclusively from the tracks of the retained needles. There never was any from the surfaces of the flaps. (*Medical Times and Gazette*, 1860, vol. i., p. 547.)

In reference to the objection we are considering, let me here add, that possibly the day may come when in some amputations an acupressure needle or needles will yet be passed—immediately before the operation—half-an-inch, or an inch or more, above the proposed line of the wound, so as to shut the principal artery or arteries of the limb, and render the whole operation comparatively bloodless. If so, these needles would serve, at one and the same time, the double uses for which the tourniquet and arterial ligatures are employed, and would, at the same time, leave the wound free from the presence of any hæmostatic foreign body whatever. In weak subjects, incapable of standing any loss of blood, "a suggestion has been made," says M. Velpeau, "to place a ligature upon the principal artery of the limb before commencing the incision of the soft parts. M. Blandin," he adds, "gives an example of this practice, which is still followed at the Hospital of Beaujon by M. Marjolin."—(*Médecine Opératoire*, vol. ii.) The deligation of the principal artery of a limb, as of the femoral, is an operation which itself is attended with considerable risk to life; but the acupressure of it is probably, on the contrary, alike comparatively free from difficulty and danger.

Fourth Objection.—Death of the End of the Bone.

As an objection not so much against acupressure as against the probability of union by the first intention following its use in amputation, Mr. Spence—one of our most careful and successful Surgeons — has argued that the "difference of textures in the stump was the principal cause of the suppuration; the end of the bone had to be rounded off; in this process portions died, and it often happened that, long after the ligatures had come away, discharge was kept up by the presence of little bits of dead bone."—(*Edinburgh Medical Journal*, January, 1864, p. 666.) Now, that the end of the amputated bone does not offer anything like an insuperable obstacle to the primary union of stump wounds, is proved by the admitted fact, that such wounds, when ligatures are employed, do sometimes, however rarely, heal at all points except where the ligatures are found. I have already, in this lecture, further adduced cases of amputation wounds, treated not by ligature but by acupressure, where the wounds *did* heal entirely by *primary union*. I selected as illustrations four cases —(see Cases 2, 3, 4, and 5)—of amputation of the thigh, of the leg, of the arm, and of the forearm, in which the vessels were acupressed, and entire union by the first intention followed. These are instances of the four largest sets of bones divided in amputation, and in none could have "portions died" of the extremities of these bones; for, in that case, primary union would have been utterly impossible. But perhaps there are few conceivable conditions more likely to lead to the death of portions of a divided bone, than having in their neighbourhood, or in contact with their surface, for a succession of days, as happens under deligation, irritating foreign bodies, such as the ligature threads, and portions of strangulated and sloughing tissue. Bone is a tissue relatively of so feeble a type of organisation, that it cannot withstand the same amount of irritation as the more soft and vitalised textures. Hence, "in a majority," says Dr. Wilks, "of our cases of pyæmia the bone was involved, being, in the case of stumps, necrosed, and involved in a suppurating or sloughing process."—("Guy's Hospital Reports," 1861, p. 121.) Surely, to save the bone, therefore, we should carefully avoid forming sloughs and suppuration in the wound. We do form them by using ligatures. We so far avoid forming them by using acupressure. Besides, according to Cruveilhier and other pathologists, pus and sanies in contact with the cut ends of bones is specially dangerous, on account of the liability of the osseous veins (which do not readily close) to easily absorb such morbific materials. General pyæmia, in short, often, in the opinion of these pathologists, originates in pus formed in, or entering into, the unclosed osseous veins exposed in the cut ends of the amputated bones.

With the exception of bone, the tissues entering into the composition of the walls of a vesico-vaginal fistula—which usually, when operated upon, easily closes by primary union—are as complex as those of a stump, for they include the muscular walls of the vagina, the muscular walls of the bladder, two mucous surfaces — the vaginal and cystic; arteries, veins, absorbents, and nerves, and quantities of connective tissue.

The most eminent of living operators, a celebrated metropolitan Surgeon, has suggested what may be regarded as two other arguments against acupressure.—(See *Lancet* for January 24, 1863, p. 94.)

Fifth Objection.—Tracks of Ligature useful as Vents for Pus.

The high Surgical authority to whom I refer seems inclined to hold that deligation was preferable, because "the track of the ligatures acted as vents for the discharge of pus." I think that one great and undoubted source of the suppurations in the interior of wounds is the very presence of the ligatures and of the sloughs and irritation which they produce; and if primary adhesion were far more aimed at, the formation of pus would be a far more rare occurrence. In short, it is better to have no foreign bodies, as ligatures, left in the wound, in order, as far as possible, to avoid the formation of pus, rather than lead the pus off when once formed.

Sixth Objection.—Acupressure might Heal Wounds too rapidly.

This gentleman uses another and, as I look upon it, a still stranger objection. He fancies the advantages of union by the first intention overrated. "Suppose"—to

use his own words—"the stump did heal by the first intention, it could not be used for weeks—for months, as it was, in great measure, new material, which would not bear pressure. In fact, the ligatures were of advantage in this way, that they prevented the patient using his limb too soon." Now, if the mere speed with which a wound was completely healed were any objection to the method by which that speed was accomplished, it would be a strange paradox in Professional ethics. It would be an argument, at all events, that no patient could appreciate or approve of; for it would be difficult, I opine, to persuade him that his wounds should heal slowly under a chronic application of local disturbances, dressings, and discharges, rather than heal rapidly and kindly without any long continuation of pain, or vexation, or trouble whatever. The cure of a Surgical wound, as much as the infliction of it, ought always surely to be accomplished, as Celsus writes it, "*tuto;*" but also as surely wherever it is practicable, "*cito et jucunde.*"

Some time ago, one of the most distinguished of our living provincial Surgeons, and himself a Professor of Clinical Surgery, stated to the Medico-Chirurgical Society of London, that he had "three grounds" of objection to acupressure. His three grounds were the following (see *Lancet* for May, 1860, p. 445):—

Seventh Objection.—The Ligature not Hurtful, but Useful in the Healing of Wounds.

"The ligature," according to the objector that I refer to, "did not deserve the charges which had been brought against it" in regard to its effect upon the artery and surrounding tissues. On this point I have already cited abundance of authorities, showing that the tied artery does inevitably die, and become a mortified piece of tissue, at the point ligatured. On the present occasion I shall content myself by citing against this old argument by this new opponent one authority more, namely, the high authority of Mr. Syme, as to the state of the end of a ligatured vessel; for, as he correctly states, the ligature "at once *deprives* the part embraced within its noose *of vitality.*" This devitalised, dead, dying, or gangrenous state—to use the meaning attached by Mr. Travers and other leading Surgical pathologists to this last term—is doubtlessly the general and inevitable effect of every ligature applied to an artery. "It has been further said," argues the objector, "that the ligature causes injurious irritation subversive of the uniting process." Most certainly it does; for any *excess* of irritation or inflammation subverts adhesion. A ligature in its track is confessedly nought but a small or miniature irritating seton. Would this Surgeon, or any Surgeon, have the hardihood to propose keeping setons, however small, between the lips of wounds to *produce* adhesion? And surely it is ridiculous to argue that their mechanical presence, and the chemical irritation which they produce in such a position, do not constitute very evident causes of the non-occurrence of adhesion along the course of their tracks and in their immediate vicinity. The neighbouring surfaces have newly-formed, organisable materials effused upon them; and, as Mr. Lawrence correctly tells us, "all newly-formed parts are weaker in vitality than the original structures, and ulcerate more easily." (See his "Lectures on Surgery.") The "*principal* obstacle," the same Surgeon elsewhere observes, to the "speedy union" of wounds is the presence in them of the body of the ligature; and hence his well-known proposition to cut the ligatures short (*London Medico-Chirurgical Transactions*, vol. vi., p. 172).

The Surgeon, whose special objections to acupressure we are considering, further observes that, "so far from regarding ligatures as hurtful, he had long looked upon them as useful, by maintaining a connexion between the bottom and surface of wounds, so as to prevent that accumulation of blood in the cavity which is so apt to happen, and substitute an abscess for primary union." Now, in regard to such a novel and very strange reason for using and preferring ligatures, I must be allowed to remark, that if "accumulations of blood" in the cavities of wounds are so frequent as is represented in the sentence quoted, there must assuredly be something very wrong either, first, in the ligature itself as a hæmostatic agent, to allow of any such common secondary escapes and collections of blood between the lips of wounds; or else, secondly, the wounds must have been closed too soon and before all the primary oozing had properly ceased. In the former case the ligature is used to repair its own hæmostatic deficiencies; in the latter it is used to repair the unnecessary haste of the Surgeon. And certainly a very imperfect reparative means it must prove in any way, if at all. Is it not far more likely, by its presence and by the mere mechanical irritation of the vascular granular surface of the wound, to produce this internal oozing of blood—to create it rather than cure it? For it is difficult to see what curative effect it can possibly exert. If a drain were really required from the depths and cavities of wounds, an actual small drainage tube of the unirritating caoutchouc form used in abscesses, etc., by M. Chassaignac, would surely be preferable to irritating, deleterious ligature-threads. But no Surgeon has ever, as far as I know, dared to propose to place such drainage-tubes for "accumulation of blood" between the lips of wounds; for the simple reason, I suppose, that no such provision is really required. The "accumulation" is a "logical" rather than an actual fact, and is adduced, I believe, because there is a want of other or better arguments against acupressure, rather than because the thing itself is apt to happen. Some large wounds, particularly if shut up too early, are liable to distil from their surface, for a time, a coloured serum, but not "blood." Such reddish serum will always find free enough vent by the tracks of the acupressure needles and wires; and it is usually finished long before these needles or wires require to be withdrawn.

The author of the objection we are considering, and who, in his published observations, so earnestly and ardently objects to acupressure as a substitute for the ligature, would, I doubt not, had he lived two or three centuries ago, have equally earnestly and ardently objected to the ligature as a substitute for the actual cautery. "Whoever," remarks Dr. Henry Marshall, "proposes an alteration of existing usages, will meet from some men with a sort of instinctive opposition, which is influenced by no process of reasoning, and no considerations of propriety or sound policy; which defends the existing system because it exists, and which would have equally defended its opposite if that had been the oldest."—("*On the Abolition of Flogging in the Army*," in his "*Military Miscellany*," p. 182.) Our objector would have probably denounced the proposed ligature of arteries—as it was denounced in 1638, by Alexander Read, in his excellent "Treatise on Wounds"—as nothing but "a troublesome and dangerous *toy*, as he shall find who shall goe about to make triall of it."—("A Treatise of the First Part of Chirurgerie," p. 12.) Or, possibly, if he did adopt deligation of the arteries, he would (like the Surgeon spoken of by Sprengel) have, in addition to this deligation, carefully frizzled and singed over with the red-hot cautery the remaining surface of the wound, that, in the language of Fallopius, it might be duly dried, purged, and strengthened ("ut exiccetur, evacuetur et corroboretur"). For, according to our objector's professed opinion, if acupressure were used, ligatures also should be duly lodged and fixed in the wound, for ligatures have a mystical beneficial effect upon the wound, just as cauterisation had a similar beneficial effect attributed to it in the olden system of Surgery. These ligatures do not, in the opinion of our objector, "cause injurious irritation subversive of the uniting process." They are not "hurtful," but "useful," as they "prevent that accumulation of blood in the cavity of the wound which is so apt to happen and substitute an abscess for primary union." The old fire-button had analogous profitable properties attributed to it in its day. For example, that famous old Glasgow Surgeon, Peter Lowe, "Scottishman," in his "Discourse of the Whole Art of Chyrurgerie," gravely remarks, "The cauter or actuall fire draweth into it the virulency and malignitie of the humor which is in that part, and in that point it is more sure and better than knitting [or the ligature]. . . It hath the virtue to drie and corroborate the same" (page 93). In favour of his pathological and practical views regarding the useful effects of ligatures on the healing of wounds, our objector took the opportunity of appealing to the Medico-Chirurgical Society of London, to whom he went up and stated them; and in favour of his pathological and practical views regarding the useful effects of hot cauteries and other matters, Peter Lowe appealed in an "Epistle General" to "the Worshipfull Companie of Chyrurgians in London and Edenborough, and all such well experimented men in this Kingdome, who are licenced to professe the Divine art of Chyrurgerie." These strange views of our objector regarding the supposed beneficial effects of ligatures on the cure of wounds, how very different in philosophic spirit and wisdom are they from the observations published forty years ago upon the same subject by the distinguished French Surgeon, M. Roux. In the account which he published of his Professional visit to this country in 1814, when treating of the means of promoting union by the first intention,

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M. Roux makes the following remarks :—"The ligatures are extraneous bodies, which, as long as they remain in the wound, irritate it, and keep up suppuration. There is certainly no doubt but that their presence is the principal obstacle to an adhesion without any suppuration, in those cases where the immediate union of a wound of greater or less extent is attempted; and," he adds, as if in anticipation of some such method as acupressure, "if there were any means by which a wound that was to be united by the first intention should not be traversed by ligatures, the success of that immediate union would be still more certain." (See his "Narrative of a Journey to London," p. 119.)

But the same Surgeon has, as I have said, two other objections to acupressure.

Eighth Objection.—Torsion, a sufficient Substitute for Ligature.

"But (again he argues) if the ligature were objectionable, its place might be supplied by torsion." In adducing this objection, as he himself terms it, he seems to have utterly forgotten that the observations of Manee, Sanson, Chelius, and others, long ago demonstrated that, when torsion is applied to a large artery, the effect of the twisting and physical laceration of the coats of the artery is generally such, that suppuration and death of some part of the contorted and torn arterial tissues are almost as certain to occur as after ligature. In his first objection he merely betrayed an excess of, perhaps, unblamable Professional prejudice. In this second objection, however, he affects an amount of Professional want of knowledge regarding torsion that is scarcely commendable in an old teacher of Surgery; for most modern text-books for students of Surgery contain the information which—as far as his published observations go—he lacks on this point. I would beg, for example, to refer him to the very masterly text-book on the "Principles of Surgery," which our own Professor of Surgery in the University of Edinburgh has published; and the objector will, I hope, agree with me in believing that I could not defer to a higher authority. When treating of the effects of torsion, Professor Miller tersely and truly remarks—"The twisted portion of the vessel *must slough* and separate; the noose of a ligature is not more truly, or to a greater extent, a foreign body."

Ninth Objection.—Acupressure only very Limited in its Action.

"He was persuaded that the field for using the needle process would be found of the most limited extent, since it could only be adopted in cases where the vessel lay in the integuments or textures adhering to them." This objection merely proves that the gentleman who used it simply and entirely misunderstood the whole subject. Acupressure has been successfully and repeatedly employed in the deepest wounds. Perhaps there may be cases and circumstances, in wounds expected to heal by primary or secondary union, where the ligature would answer and the needle not; but if any, they must be few indeed. On the contrary, I know of several instances where acupressure has at once arrested the hæmorrhage after a fruitless trial of the forceps and ligature. In evidence of this important remark, permit me to adduce four or five

INSTANCES OF ACUPRESSURE PROVING SUCCESSFUL WHERE THE LIGATURE HAD PROVED INAPPLICABLE.

Case 12.—*Amputation of the Thigh.*—In the last case of this operation at which I was present, the Surgeon—one of our most able and dexterous operators—rapidly secured by acupressure all the arteries exposed except one. This vessel bled most profusely whenever the compression of the femoral artery at the groin was relaxed. The bleeding orifice, which was retracted, appeared to be situated very deep in the angle formed by the flaps of the stump, and apparently at the upper end of the divided apex of a sinus that had run up alongside of the femur. It was, probably, a deep obturator branch. The operator turned to me with the remark, that this was an example of a deep retracted bleeding vessel which only the ligature could arrest. Of course, I made no remark, as the case was his and not mine. He tried to secure the bleeding orifice with the forceps and ligature over and over again, but without success. He then remarked that it would be necessary to dissect up the flap somewhat to reach the bleeding orifice, that it might be properly laid hold of. I then ventured to ask him to try an acupressure needle before doing so. The needle—a long one, of the form Fig. 1—was passed through the skin, and at once and effectually closed the vessel, being so introduced as to compress it against the bone. The needles, six in number, were all removed in twenty-one hours,—perhaps a date that would have proved too early for freeing such a vessel as the femoral from acupressure, had it not been that the patient was very young,—between seven and eight—and the vessels correspondingly small. The child's recovery was complete before the fourth week.

Case 13.—*Amputation below the Knee.*—Surgeons know well that in some amputations, and especially in amputations below the knee, the arteries sometimes retract so as to be difficult to catch and secure with the ligature. Both Mr. Guthrie and Mr. Fergusson, in describing amputation below the knee, speak of having seen cases where the divided tibial arteries retracted so much, that the efforts to catch them for ligature ended in a kind of "despair." In a case of this kind, which occurred in the practice of Dr. McKinlay, of Paisley, several attempts were made to seize a bleeding tibial artery, both with forceps and with tenaculum, but without success. In order to reach the retracted artery, Dr. McKinlay then cut off a piece more of the bones, and again attempted deligation, but in vain. At last he procured a long "darning" needle, and immediately and successfully compressed the artery against the bone. Two other vessels were secured by ligature. The needle was withdrawn on the third day, and the patient made a good recovery, the wound healing, in great part, by first intention.

Case 14.—*Amputation at the Ankle.*—After removing the foot, Dr. Henderson, of Leith, secured the two largest vessels that were open by acupressure. The ligature was applied to two small ones situated close to the cut extremities of the bones. A fifth vessel began to bleed freely when the stump was about to be closed. This vessel could not be secured by the ligature, which always slipped, owing to the dense nature of the tissue. At last a small acupressure needle was used, and easily secured it.—(See *Edinburgh Medical Journal*, 1860-61, p. 698.)

For the following note of a case of retracted fibular artery, where the ligature failed repeatedly, I am indebted to my friend Mr. Edwards :—

Case 15.—*Amputation of Ankle—Retracted Fibular Artery.*—"The patient, a young man aged 22, had chronic disease in the ankle joint. He was much exhausted by the malady. I removed his foot above the ankle. My chief reason for doing so was the exsanguine condition of the patient, and this prevented my attempting the then new method of acupressure. I *tied* several vessels, therefore; *but* the fibular artery had retracted, so that I could not seize it without further dissection. Professor Simpson, who was present, took a needle from his case, and secured the artery *at once*. This poor, weak lad rapidly recovered; his stump healed in a great measure by first intention, except where my ligatures hung out; but to my amazement Dr. Simpson's needle healed *in*. Around it there was no suppuration, and when I withdrew it after two weeks, the eye was full of new material, granulation substance, I suppose. The patient left Edinburgh in three weeks, and I saw him recently, well, with a good stump. I would venture to add, that although I could have tied his fibular artery, doing so would have put him in greater danger, while it would have put me to some trouble in the way of additional dissection, and prolonged the operation."

Case 16.—*Divided Radial Artery.*—A young man of 16 received a wound from an axe in his left forearm immediately above the wrist, and had his radial artery completely divided. He was sent, with the wound and forearm very tightly bandaged, into the Carlisle Infirmary, where Dr. Hamilton easily tied the distal end of the vessel, but failed to secure the cardiac orifice by ligature, owing to its great retraction. Instead, then, of extending the wound upwards with the knife, and exposing the artery so as to be able to place a thread round it, he had recourse to acupressure, which immediately produced the desired hæmostatic effect; and when the needle and wire compress were withdrawn after thirty-four hours, the vessel proved to be quite occluded. (See Dr. Hamilton's "Reports" in *Edinburgh Medical Journal*, January, 1864, p. 630.)

In such instances as the preceding wrist-wound, and in others, acupressure assuredly offers no small advantage over ligatures. Whenever we can obtain our object without applying the knife to the living flesh of our patients, it is, as a general principle, right even for the practised operator to avoid it. The dissection down upon the retracted end of a radial is sometimes not an easy matter, and particularly in country practice, where no proper assistance is at hand. Under such circumstances, it is surely better, and safer, and simpler to use acupressure without any dissection, than deligation with precedent and sometimes difficult dissection.

In the following interesting case, which was under the able care of my friend, Mr. Page, of Carlisle, the needle succeeded ultimately in closing the vessels in an instance where ligatures were followed several times by dangerous secondary hæmorrhage.

Case 17.—*Popliteal Aneurism and Amputation, with Repeated Secondary Hæmorrhages.*—The patient, aged 30, who had served in the army for nine years, was admitted into the Carlisle Infirmary on account of a double popliteal aneurism. Compression of the femoral artery was tried for a time, but had to be desisted from on account of the severe pain it occasioned, and the artery was tied. The ligature came away on the thirteenth day, and secondary hæmorrhage took place. Both extremities of the artery were then ligatured, but secondary hæmorrhage recurred several times, till at last Mr. Page was driven to amputate the thigh at its upper third. Ligatures were applied to the vessels. They separated in the course of a week. On the ninth day secondary hæmorrhage once more supervened, and after about twelve ounces of blood were lost, the bleeding artery was compressed against the bone by means of a needle, with perfect success. The application of a ligature was at first contemplated, but this project was abandoned on account of the manifest difficulty of seizing the orifice of the vessel in the midst of the mass of exuberant granulations which surrounded it, and the very weak and depressed state of the patient. Five days subsequently, another artery which had taken to bleeding was secured by a second needle. After that, there was no more hæmorrhage, and in three weeks the man was discharged cured. In talking over the case, Mr. Page stated to me that he believed acupressure was the means of saving the man's life.

Sometimes acupressure succeeds where it is difficult to use the ligature with success,—in the instance of small vessels situated in awkward positions, or where there is not enough of the arterial tube projecting to seize with the forceps, as in the following:—

Case 18.—*Ovariotomy.—Vessel Bleeding on the Inner Surface of the Abdominal Walls.*—In an instance in which I saw Mr. Spencer Wells perform ovariotomy with his usual great skill and dexterity, the ovarian tumour was pretty firmly fixed to the abdominal walls by old adhesions. After these adhesions were severed and the tumour removed, there were two points on the abdominal peritoneum which bled considerably. One of these bleeding orifices was closed by the application of a silk ligature, which was cut short. The other bleeding orifice was so flat that the attempts to seize it with the forceps and ligature failed; but it was readily closed by passing an acupressure pin through the abdominal walls, so as to bridge over and compress the bleeding vessel. This mode of arresting the hæmorrhage had the further merit in such an operation, that the head of the needle being left externally, it could be withdrawn at will; while, if the ligature had been used, it was, of necessity, permanently left within the cavity of the peritoneum.

Occasionally, when the coats of an artery are much diseased or ossified, they are brittle and friable, and will not bear the strain of the common silken ligature. Dupuytren, Roux, and Manee recommend the introduction of a piece of bougie into the ossified artery as a plug in these circumstances, when deligation becomes dangerous or impossible. But in such a grave complication acupressure has been found quite safe and sufficient, as seen in the following instance:—

Case 19.—*Acupressure capable of Closing an Ossified Artery.*—For mangling of the left foot by a wagon, M. Foucher performed, at the Necker Hospital, Paris, amputation at the lower third of the leg by the double flap method. He acupressed four bleeding arteries. "It was evident," he says, "to me, as well as to the *Internes* of the Hospital present at the operation, that acupressure constitutes a hæmostatic method speedy and easy of application." On the third morning two of the needles were removed; but gangrene spread rapidly up the limb, pyæmia supervened, and the patient ultimately sank. The needles placed over the anterior and posterior tibials were allowed to remain till the patient died. "At the autopsy," says M. Foucher, "we were enabled to satisfy ourselves that the two needles compressed firmly the anterior and posterior tibial arteries, and that, on a level with the needles, the walls of the arteries had not undergone the slightest alteration or destruction. In the interior of the canal was found an obliterating clot, which, in the case of the posterior tibial, was firmly adhering to the extremity of the cut arterial tube. I may add," he continues, "that the two arteries were ossified for a considerable distance above the wound, and that their walls were rigid and friable. This disposition," he concludes, "or condition of the vessel, which is altogether unfavourable to the employment of the ligature, did not interfere in the slightest degree with the process of acupressure, which up to the last moment gave all we asked of it—to wit, complete arrestment of hæmorrhage."—(*Edinburgh Medical Journal*, 1859-60, p. 1048.)

Acupressure as a Means of Saving Life.

Sometimes the Surgeon is, humanly speaking, the arbiter of his patient's fate. Whether the patient live or die may depend entirely on whether the Surgeon operates or not. Nay, the very mode in which he operates may sway and settle the question; for in a case of grave doubt and danger, a mode, for example, of removing a shattered or diseased limb may, when the patient is already much shaken or reduced, make all the difference to him between life and death. A mode by which any unnecessary loss of blood is prevented—by which any unnecessary irritation of the wound is avoided—and by which any unnecessary amount of exhausting, suppurative discharges is averted, may turn his fate when that fate is trembling in the balance.

It would be presumptuous, in the present state of our knowledge, to dogmatise to the extent of averring that in this way the fate of one or more Surgical patients has already been decided by the employment of acupressure instead of deligation in some amputations of the limbs. But I believe acupressure to be a means calculated in this way to save both human suffering and human life. In Case 2 we have already seen an instance where the highest Surgical authority in Scotland refused to amputate the thigh in consequence of the apparently hopeless state of the patient. But when his limb was amputated, and the bleeding vessels acupressed, union of the wound by the first intention took place, and the man was driving out in his own conveyance six weeks after the operation. In Dr. Handyside's case of amputation of the thigh for traumatic gangrene (see above, Case 7), recovery rapidly took place under circumstances which are usually reckoned by our highest Surgical authorities, as by Brodie, Erichsen, and others, to be perfectly desperate. The first case of amputation of the thigh in which acupressure was ever used was an instance of the same kind; and in illustration of the preceding view let me cite some of the particulars of it, as published by my friend, Dr. Struthers, of Leith:—

Case 20.—*Amputation at the Middle of the Thigh for Traumatic, Spreading Gangrene.*—The patient, aged 40, sustained a compound comminuted fracture of both bones of his leg from a machinery accident. He also had his foot much bruised, as well as the thigh on its posterior aspect, as far up as the hip. Two pieces of the tibia, one of them an inch square, were removed from the wound in the leg, and a M'Intyre splint put on. The limb soon became very much swollen, and on the fifth day free incisions were made into it, and several ounces of fetid bloody pus allowed to drain away. By the ninth day the skin was mottled, and the wound blackish and sloughy. The skin around it crepitated on pressure, and the parts were evidently gangrenous. On the day following, "the whole limb," to quote the words of Dr. Struthers, "from the ankle to the knee, crepitated on pressure; the wound and incisions were sloughy, and the tissues there were dead; the skin over the knee was red, and crepitation was perceptible over the inner condyle and in the popliteal space. The patient had slept none for two nights; was very exhausted, occasionally delirious; pulse 130; countenance sallow and sunk. The limb being now gangrenous and the gangrene spreading, the only chance of life lay in amputation." Mr. Spence and Dr. Gillespie were called in consultation, and Dr. Struthers adds, "we were all of opinion that the case was a desperate one, and that the patient would almost certainly sink whatever means were adopted." It was, however, thought right to remove the dead member; and accordingly Dr. Struthers amputated at the middle of the thigh by the circular method. "On the limb being removed" (I quote Dr. Struthers' own narrative) "Dr. Simpson passed a needle from the inner aspect of the thigh over the femoral artery, about an inch from its cut extremity, bringing its point out in front; the needle was passed with great ease, and, to the gratification of all present, completely stopped the flow of blood. The passing of this needle resembled, in rapidity and ease, the passing of an ordinary catheter, and satisfied every one present of the practicability and efficiency of acupressure as a means of arresting hæmorrhage. Five smaller

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needles were required to stop the other arteries, the mouths of which did not require to be sought for and pulled out, as it sufficed to pass the needle across the track of the vessel, to which the bleeding point was a guide." After eighty-five hours all the needles were removed except the one over the femoral artery, which was allowed to remain for ninety-eight hours. In his report on the fifth day after the operation, Dr. Struthers says:—"The stump looked well on the anterior aspect, but the posterior edge of the flap, for the space of three inches by one, was sloughing. The whole of the posterior and outer surface of the thigh looked very suspicious, being quite black from ecchymosis (the result of the original injury), but there was no appearance of the gangrene spreading further." From this time the progress was very favourable; the slough on the posterior flap soon separated, and before six weeks from the time of the operation, "the stump," says Dr. Struthers, "which is an excellent one, was entirely healed." (See *Edinburgh Medical Journal*, 1860-61, p. 692.

I have still to discuss the important question, how the deligation of arteries is liable to prove dangerous to the health and life of the patient.

(To be continued.)

COURSE OF

LECTURES

ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D.,

Professor in University College, and Assistant-Physician to University College Hospital.

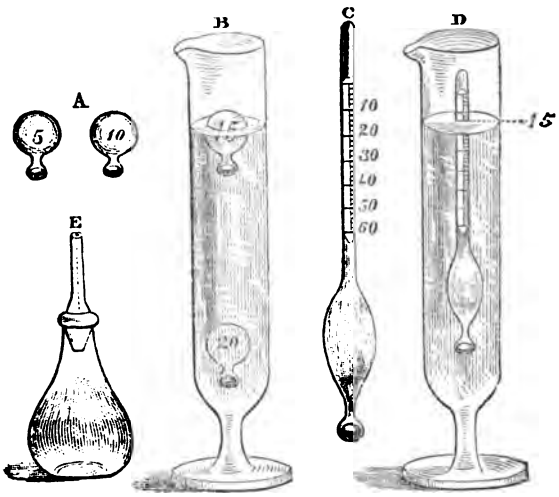
(Continued from page 28.)

The Specific Gravity of Human Urine.

The specific gravity of healthy urine ranges between 1002 (after drinking) and 1030 (after food), pure water being 1000. It is never lighter than water. In disease its density may be as high as 1060. The variations in the specific gravity of the healthy secretion depend upon the quantity of solids it contains, and that again varies with the time of the day, the constitution of the individual, the food and drink, and the amount of exercise taken. The urine that is passed immediately after drinking, and hence called "urina potûs," is pale coloured, faintly acid, and of low specific gravity (1002 to 1015). That passed in the morning, after sleep, and named "urina sanguinis," from being supposed to come directly from the blood, is darker in colour, of a more acid reaction, and a higher specific gravity (1015 to 1020); while that voided some hours after food, and named, accordingly, "urina cibi," although having a still higher specific gravity than the last (1020 to 1030), is neither so dark in colour nor so acid in reaction as the morning's urine.

Seeing that the different urines voided at different times throughout the day vary so much in specific gravity, it is easily understood how dangerous it must be to draw any conclusions from observations made on only one of them, and proves the necessity of collecting the whole urine passed during the twenty-four hours, and estimating the specific gravity therefrom. When such is done, it is found that the average specific gravity varies in health from 1015 to 1025; pregnancy being the only exception to this rule. In it, and more especially during the latter months, the average specific gravity may reach as high as 1033, and yet the individual be in the enjoyment of the most perfect health. I have even noticed that of the urina sanguinis in such cases as much as 1030. Were such changes as these observed in a non-pregnant female, they would infallibly point to an abnormal condition of system, such as the existence of febrile or inflammatory disease. In pneumonia and pleurisy the specific gravity of the urine is often as high as 1035, and in fever it has even been noticed to reach 1038. On the other hand, when the average specific gravity is abnormally low (less than 1015), we may with equal safety suspect the presence of some exhausting non-inflammatory complaint, such, for example, as Bright's disease, in which it may be as low as 1008, or as cholera, where it has been known to fall even to 1006. It may be stated as a rule, that the lower the specific gravity in these affections, the more unfavourable is the prognosis; the higher the specific gravity, the less dangerous the case. (b) The specific gravity of urine is estimated in three different ways. First, by means of density beads (Fig. 3, A), such as were formerly used in ascertaining the specific gravity of spirit.

Fig. 3.



These beads are gradually dropped into the urine until one sinks to the bottom of the vessel, when, by reading off the number on the last bead that floated, the specific gravity of the liquid is ascertained. In the urine glass (B), bead 20, being too heavy, has sunk to the bottom, while bead 15 is floating at the top. The specific gravity of the liquid is, therefore, 1015. This method is open to two objections:—1st. It does not come nearer than five degrees, for the beads are numbered 5, 10, 15, 20, 25, etc.; and 2nd. It is exceedingly tedious in its mode of employment.

The second method of ascertaining the specific gravity is by what is called a urinometer (Fig. 3, C)—a most convenient little instrument consisting of a blown glass float, a small bulb weighted with mercury, and a graduated stem. All that is required with this instrument is, to pop it into the urine, and read off the number which happens to be on a level with the surface of the liquid. If it chance to be 15 (Fig. 3, D), then the urine has a specific gravity of 1015. If, on the other hand, the instrument is high in the liquid, and the reading is at 30, the urine is proportionally heavy, the density being 1030.

Although this instrument does admirably for clinical purposes, it is not sufficiently exact for scientific research; accordingly, when we desire to make scientific observations, we use a picknometer (Fig. 3, E), which, as shown in the woodcut, is a small bottle, with a long stopper perforated by a capillary tube. When the stopper is accurately adjusted, the bottle holds exactly 20 c. c. of distilled water. To ascertain the specific gravity of the urine by its means, the bottle is filled to overflowing with the liquid, accurately stoppered, wiped dry, and weighed; and the difference between its weight when filled with distilled water and with urine indicates the specific gravity. For example, suppose the urine weighs 20·3 grammes, (c) while the distilled water weighed only 20 grammes, the calculation would be to multiply the 20·3 by 1000, and divide by 20.

$$\frac{20{\cdot}3 \times 1000}{20} = 1015$$

Or, simply multiply the decimal, whatever it may chance to be, by 5, and the result is the last two figures of the specific gravity, $3 \times 5 = 15$.

The Temperature of the Urine.—We frequently hear patients say their urine scalds them, and this has led to the idea that the urine is hot; whereas the temperature of the urine, even at the moment of being passed, is never higher than the temperature of the body. The urine, in reality, receives its heat from the body; and, as the material warmed can in no case be hotter than the material which warms, the urine cannot possibly have a higher temperature than the frame. When patients complain of the urine scalding them, we may be assured of one of two things, either that the canal, or part

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

(b) The exceptions to this rule will afterwards be pointed out.

(c) Calculated in grammes or grains, the result is precisely the same.

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of the canal, is in a state of inflammation, and has, consequently, its sensibility increased; or, that the urine possesses more than its usual degree of acrimony. The normal temperature of the freshly-passed urine is 99°F., or thereabouts; but in cases of pneumonia, scarlet fever, and such other diseases as raise abnormally the bodily temperature, the urine also participates in the change, and its temperature may also reach as high as 105° F.

Quantity of Urine.

The amount of water expelled from the body varies exceedingly, not only as regards the relative quantity voided at each micturition, but also as regards the absolute amount passed in the twenty-four hours. From what has been previously said with regard to the different kinds of urine passed in the day, you can easily see the absolute necessity of collecting all the urine made by the patient during twenty-four hours, and analysing a sample taken from the whole. Formerly, the constituents of the urine were reckoned at so much per cent.; but subsequent research has shown that such a mode of analysis gives rise to most erroneous data: it has, therefore, been thrown aside as worse than useless.

Indeed, when we are making a study of any particular disease, the mere calculating the quantity of urine passed in a single day is scarcely sufficient, for, as will be immediately seen, there are very many things which accidentally influence the quantity. In order to arrive at exactitude, the urine should be collected and measured during at least two, if not three, consecutive days, and the average for the twenty-four hours calculated. Some recent writers (Vogel and Neubauer), think it advisable to measure the hourly excretion; but this can scarcely be done except in Hospitals, and fortunately for us there is no absolute necessity for such measurements.

If we merely wish to ascertain the presence or absence of any particular substance, such, for instance, as albumen or sugar, testing any of the urines passed during the twenty-four hours, is in general sufficient for the purpose. You will find it is usually recommended in books to examine the morning's urine (urina sanguinis). This recommendation, however, is not unlikely to lead to error, and that, too, in those very cases where it is of the utmost importance to avoid it, namely, in those where the disease is in its early stage, and, consequently, where but little of the abnormal substance is present in the urine. In such cases, it is much better to employ the urina cibi (that passed from three to four hours after dinner is the best), as it invariably contains the greatest amount of either of these foreign substances. The reason of this I shall subsequently explain.

(To be continued.)

High Death-rate in the Metropolis.—In the week that ended Saturday, January 9, the deaths registered were 1798; in the week ending January 16, they were 2427. The average number in the ten corresponding weeks of the years 1854-63 was 1409, which, if raised in proportion to increase of population, becomes 1550. Hence, the deaths of last week exceeded the estimated amount by 877. These persons were killed almost suddenly by the cold wave of the atmosphere. In comparing the present results with those of the previous week, a great increase is apparent in diseases of the respiratory organs. Fatal cases of pneumonia rose from 91 to 156; of phthisis (or consumption), from 194 to 235; of bronchitis, from 326 to 543. Of the 2427 persons who died, 818 were under 20 years of age, 800 were 20 and under 60 years, and 809 were 60 years and upwards. Taking the numbers living at the respective ages into account, it appears that, while persons at all ages have suffered, the severity of the weather has been particularly fatal to persons in advanced life.—*Registrar-General's Weekly Return.*

Prosecution for Inoculating.—At the Cashel Petty Sessions, on Wednesday, before John M. Bushe, Esq., chairman, the Hon. Martin Joseph Ffrench, R.M., and Captain Graham, the only case of importance was brought by constable Daniel Maguire, of Peake, against a woman of the name of Mary Sullivan, of Gralla, for inoculating the children of John Thornton and Mary Butler, of Ballytarsna, with the small-pox. The parents of the children gave their evidence most unwillingly. Dr. Cormack proved that the children had been cut and inoculated with the small-pox. The woman was sentenced to two months' imprisonment—one month for each offence. The court then adjourned.—*Clonmel Chronicle.*

ORIGINAL COMMUNICATIONS.

CASES OF FRACTURED PATELLA TREATED BY MALGAIGNE'S HOOKS.

By G. E. PYLE,
House-Surgeon, Middlesex Hospital.

The treatment of fractured patella by Malgaigne's apparatus has not, I believe, been adopted at any Hospital in England, either in town or country, as a recognised plan, or, if so, the cases so treated have never been made public. It may, therefore, be interesting to place before your readers the record of the cases which have been treated in this way at the Middlesex Hospital during the last few years, particularly as the results have been most satisfactory. The advantages gained by this over other methods of treatment are, principally, the easy application of the instrument, the trifling inconvenience to the patient, and the close approximation into which the broken fragments are brought and retained—*i.e.*, the complete union which results. When we consider the complex apparatus which have been devised for fractured patella, the difficulty of their application, and the inefficient results which have followed their use, we are led to wonder at the neglect into which the simple instrument of Malgaigne has fallen. It is not attempted to be shown that complete bony union takes place in all the cases so treated, but there are strong grounds for believing that such is by no means so unfrequent a result as is generally believed; and even in those cases where bony union has not taken place, a much closer ligamentous union is effected than at most times occurs under other plans of treatment. A table is appended containing an equal number of cases treated on the old principle and on the new. It will be seen by this table, and by the cases reported in full, that the time of application varies according to the amount of swelling or bruising which may be present in the injured knee; that the hooks are applied without any bandage or other appliance in addition; that, though the leg is generally kept elevated at first, this is by no means a necessary part of the treatment, and does away with the long-continued maintenance of a position which must be exceedingly irksome to the patient; and, finally, that the introduction of the hooks has in no case given rise to local inflammation or injury to the joint.

I would direct attention to two of the recorded cases especially. The first is that of M. T., who figures in both tables. When admitted she had fracture of both patellæ, with separation of the fragments to the extent of three-quarters of an inch on the right, and half an inch on the left side. The hooks were applied to the right patella, and the left leg was simply elevated on an Earle's bed, and the broken bone kept in position by bandages. When discharged, complete union had taken place on the right side, but on the left there was still a considerable interval between the fragments.

In the second case, that of W. S., the point of interest is this: two years before, he had fractured the other patella, and after treatment, on the old principle, for eight weeks, an interval of about an inch still remained between the fragments. This time he remained in the Hospital less than six weeks, and went out with a closely-united patella.

Case 1.—C. C., aged 39, admitted April 22, 1862, under the care of Mr. de Morgan. Far advanced in pregnancy; transverse fracture of right patella, caused by muscular action; not much swelling of knee or large interval between the fragments; Malgaigne's hooks applied about one hour and a-half after admission; leg not elevated, nor any bandage applied.

25th.—Has suffered little pain from application of hooks; no inflammation around them.

May 2.—Hooks tightened to their fullest extent.

27th.—Hooks removed; complete and satisfactory union has taken place.

On June 2 starch bandage was applied, and the next day she was discharged, able to walk.

Case 2.—A. B., aged 47, admitted October 31, 1862, under the care of Mr. Shaw. Transverse fracture of left patella, from muscular action; considerable effusion into joint; separation of fragments for about three-quarters of an inch; leg elevated, and sal-ammoniac lotion applied constantly to reduce the swelling.

November 6.—Swelling having considerably subsided, Malgaigne's hooks were applied.

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7th.—Fragments have been brought to within the eighth of an inch of each other; did not sleep much, but says, as far as pain goes, she is as easy as before the application of the hooks; leg still elevated.

December 9.—Hooks removed; has suffered no more pain during the whole time they were in; joint still rather swollen; line of division between the fragments can be felt, but no appreciable interval.

11th.—Discharged.

Case 3.—P. N., aged 55, admitted May 13, 1862, under the care of Mr. Shaw. Transverse fracture of left patella, from direct violence (a fall on the pavement); separation of fragments fully an inch; considerable effusion into and bruising of knee-joint; leg elevated, and cold lotion applied.

June 6.—Swelling has been very obstinate to reduce, and accompanied with pain; but having now nearly subsided, Malgaigne's hooks were applied.

24th.—Hooks removed; leg still kept elevated.

July 29th.—Discharged. Union good, but not bony.

Synopsis of Sixteen Cases of Fractured Patella—Eight treated by Malgaigne's Hooks, and Eight by other Methods.

No.	Name.	Age.	Sex.	Treatment.	Result.	No. of days in Hospital.	Remarks.
1	M. T.	37	F.	Malgaigne's hooks applied 4th day	Close union (not bony)	78	Hooks applied for 23 days.
2	C. C.	39	F.	Do., 1¼ hour	Complete union	42	Do. for 35 days.
3	A. B.	47	F.	Do., 6th day	Line of division can be felt, but no distinct interval	41	Do. for 33 days.
4	R. E.	40	M.	Do.,	Not ascertained	71	
5	P. N.	55	M.	Do., 23rd day	Good union	77	Do. for 19 days.
6	H. D.	40	M.	Do., 7th day	Do.	57	Do. for 21 days.
7	W. S.	37	M.	Do., 2nd day	Complete union	44	Do. for 27 days.
8	A. S.	64	F.	Do., 2nd day	Do.	48	Not ascertained
9	J. Y.	25	M.	Limb elevated upon an inclined plane.	Firm union	50	
10	J. V.	25	M.	Do.	Interval of ½-inch between fragments	28	
1	M. T.	37	F.	Do.	Interval of slight extent remaining	78	
12	M. C.	60	F.	Do.	Fracture united	49	
13	C. E.	45	F.	Do.	Interval of ½-inch remaining	72	When nearly well, fell down again, and separated united medium.
14	E. T.	47	F.	Do.	Ligamentous union; ½-inch interval remaining	56	
15	C. N.	23	M.	Do. (back splint)	Not united	49	
16	E. W.	47	F.	Do.	Fracture united	91	

ON DISEASED MEAT, AND WHAT TO OBSERVE IN CASES OF SUSPECTED POISONING BY MEAT OR SAUSAGES.

By EDWARD BALLARD, M.D.,
Medical Officer of Health for Islington etc.

Few beside those who have engaged in such an investigation are aware of the difficulties which surround an inquiry into the injurious effect of diseased meat upon health. The conflicting opinions which have been put forward upon the subject, and the very imperfect histories of cases of disease thus induced recorded in the public journals, sufficiently testify the scanty amount of real knowledge we have at present upon this important subject. In fact, so far as this country is concerned, very little has hitherto been effected towards its elucidation: most of the knowledge we possess is derived from abroad. This is very discreditable to us as scientific men. The only way of explaining the neglect which this inquiry has met with lies in the difficulty which is felt,—first, in tracing out the source of the meat which is believed to have proved injurious; and next, in separating the operation of this from that of other causes of disease which may be combined with it. Partly, too, it may be explained by an incomplete notion of the points which it is necessary to ascertain before we can establish with any certainty an etiological relation of this nature.

The Metropolitan Association of Medical Officers of Health have done well, therefore, in taking up this question, and it is to be hoped that they will receive from the Profession in the United Kingdom all the assistance which it can bestow. In no other way that I know of is it possible to arrive at a satisfactory result. The enquiries to which they have requested replies are few and simple enough. What I wish to do now is to point out the real extent of the inquiry. In a certain degree this has been done in a recent leading article; but possibly it may not be amiss at the present time to place before your readers more fully the points which it is of importance to notice. No one can expect that any case forwarded to the Association shall embrace a detail anything nearly as full as the following programme would seem to indicate; but, at the same time, some good may be done by showing what a complete case would embrace. Although perfection may be unattainable, we may still advantageously reach towards it.

I. Particulars relating to the Animal while Living.

Health of animal [stating whether facts were observed by reporter, or from whom derived].—Diseased? in what way—*e. g.*, typhous disease, pleuro-pneumonia, carbuncular disease, braxy, splenic apoplexy, inflammatory or febrile diseases, diseases after parturition; parasitic disease, such as liver-fluke, measle, etc. (stating the grounds on which the diagnosis was based, and any post-mortem appearances).

Duration of disease—its stage at death?

Died during or after parturition? Immediate cause of death: exhaustion, injury from manual interference, metritis, fever, etc.? Any effect on the person assisting in the delivery of the animal?

Mode of killing?

Poisoned? by what means?

Circumstances immediately preceding death or killing: hunted, coursed, over-driven, etc.? crushed, drowned, suffocated, and how?

Any medicines given? what, in what doses, and how long?

II. Particulars relating to the Meat, etc.

Temperature of the atmosphere when killed, and during period that elapsed before cooking? Other meteorological conditions—*e.g.*, electrical phenomena, weather muggy, etc.?

Meat, etc.—salted, dried, smoked, preserved? made into sausages? how long after killing? Condition and physical appearances of meat prior to any of such modes of preparation? (See *infra*.)

Physical characters of meat, etc.—Presence or absence of subcutaneous, inter-muscular, and internal *fat*? its amount, its colour, firm or loose? unusual predominance of filamentous tissue or oil vesicles? fat between muscular bundles? Marrow of long bones loose? deficient in fat? watery? bloody?

Muscular flesh plump or wasted? Its colour—unnaturally dark or dingy, bloody (oozing or dripping with blood)? presenting the appearance of circumscribed effusions of blood? Pale, looking macerated? watery-looking (*wet*)? Inter-muscular tissue watery, jelly-like, exuding drops of watery fluid? Odour—natural, sour, sickening, putrid, or tainted? Consistence to the touch—firm, hard, soft, readily broken down? viscid or sticky?

Presence of parasitic animals in the flesh, liver, brain, etc.? measle, fluke, etc.?

Cancer or other organic disease?

Heart, kidneys, or liver.—Appearances denoting fatty degeneration?

Sausages.—Colour: unusually pale? unusually red? apparent proportion of flesh, fat, and bread? odour, etc.

Microscopical examination.—Condition of muscular fibre, heart, kidneys, liver, used as food? fatty or other degeneration?

Chemical examination.—Mineral poisons or medicines discoverable: antimony, arsenic, mercury, lead, etc.?

III. Cooking of Meat, etc.

Time that elapsed between killing or death and cooking.

Mode of cooking.—Broiled, fried in fat (what fat?)—roasted, boiled, stewed (with what?)—made into soup or meat-pie or pudding (with what additional, and with what was crust made?) etc.

Perfection of cookery.—Any part red (underdone)? did red gravy run out on meat being cut into?

Re-cooked? in what way?

IV. Keeping of Cooked Meat.

How long kept after being cooked? where kept? was meat kept in contact with other food, and what? with potatoes or

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other vegetables? with bread, flour, fat, etc.? In what vessel? its material?

Temperature at which kept. Character of the weather.

Apparent changes undergone by keeping.—Had it become damp or "muddled?" tainted? mouldy? sour? etc., changed in taste?

V. Disorders consequent on Eating Meat, etc.

Full details of circumstances connected with eating the meat, etc.

Did all who ate of meat, etc., suffer? Did those who abstained suffer? Did all who suffered eat an equal amount?

Did supposed sufferers eat anything else or drink anything at meal, and what? Did they in this differ from those who did not suffer?

How often was meat, etc. (the supposed cause of disorder), partaken of? Was diseased meat, etc., habitually used? for what period?

Habitual state of health of sufferers? had a similar attack been suffered before, and under what circumstances?

How soon after eating meat, etc., did disorder commence?

Describe attack. Symptoms in order of occurrence. Phenomena in order of the systems affected. Cutaneous system, nervous system, mouth, throat, and digestive system, heart and circulating system, respiratory system, muscular system, etc. General symptoms: shivering, debility, *malaise*, fever, etc.

Duration of illness.—Result, recovery, death?

VI. Post-mortem Examination.

Detailed under the following heads:—

General external appearances. Nervous system. Digestive system and peritoneum. Respiratory system and pleura. Circulating system: pericardium, heart, vessels, and blood. Urinary system. Muscular system: parasites.

Contents of stomach and intestines. Their physical characters: entozoa?

Microscopical characters of contents of stomach.

Chemical characters of contents of stomach: mineral poisons? etc.

VII. Experiments with Meat, etc.

Effects of feeding dogs, cats, etc., with suspected meat, uncooked and cooked.

N.B.—Negative facts should be observed and recorded, as well as positive ones.

[It may not be amiss to add, that any communications with which the Profession may favour the Association should be directed to Dr. R. D. Thomson, the President, at the Courthouse, Marylebone.]

REMOVAL OF A FIBROUS TUMOUR FROM THE UTERUS.

By MICHAEL T. SADLER, M.D. Lond.

The patient, Mrs. H., the wife of a farmer, is about forty years of age, a tolerably robust-looking brunette, who has had no children. She has enjoyed good health, with the exception of pains at the commencement of menstruation. In April, 1861, she had an unusually painful period, with a sensation of cutting pains on passing the motions; this was followed by leucorrhœa, which, however, did not continue long, though the pain on defecation was still occasionally felt.

About November, 1862, these symptoms became more troublesome, though not so severe as to induce her to seek medical advice.

In February, 1863, after exposure to wet at the menstrual period, she had an unusually large amount of discharge, with severe pain; from this time at each period the discharge and pain were excessive, continuing for ten or eleven days, with leucorrhœa during the intervals, and by May the coloured discharge was continuous, with frequent attacks of severe hæmorrhage, and expulsion of clots of blood. Finding that complete rest, perchloride of iron, mineral acids, and other remedies gave only partial and temporary relief, on May 29 I made a vaginal examination, and found the uterus enlarged, and apparently tilted forwards, with the os uteri small, and not easily reached. I diagnosed a fibrous tumour or polypus within the cavity of the uterus, as yet inaccessible. Occasional doses of ergot were given at intervals, with the hope of dilating the os, but for some time without much effect. The appetite, which had hitherto been good, began to fail, whilst the pain and discharge increased, frequently being so severe as to cause fainting. The patient's strength and spirits began to fail seriously, and I feared that it would become necessary to ditate the os uteri by sponge tents, or other means.

On July 4, however, when Mr. Teale, of Leeds, saw the case with me, the os began, for the first time, to show signs of yielding to the internal pressure, and a continuance of the same plan of treatment was advised.

On July 12 the pain was unusually violent, and, on examination, I found the os distinctly dilating, and could reach the tumour within it. On the 15th, the pains continuing very severe, the tumour began to descend into the vagina, and by 8 a.m. on the 16th it had got so low as to press on the urethra and prevent micturition. As it now seemed fairly within reach, and the patient was suffering extremely, I determined to attempt to remove it. I accordingly emptied the bladder, put the patient under the influence of chloroform, and, finding no kind of forceps of any use, on account of the yielding nature of the tumour, and the small proportion of it which was as yet extruded from the uterus, I passed my hand (not without considerable difficulty, the patient never having had a child) alongside of the tumour into the uterus until I reached its base; then with my fingers separated it from its attachments—enucleated it, in fact, as there was no pedicle, and the rounded base of the tumour seemed to be imbedded in the substance of the uterus. This being done, the whole tumour came away without much more difficulty.

There was no hæmorrhage of any consequence; but the patient was rather slow in recovering from the effects of the chloroform, and about twenty minutes after she had ceased to inhale it fell into a rather alarming state of syncope, in which respiration was with some difficulty maintained. By degrees, however, this passed off, but she long continued very sick and faint. From this time she gradually, though slowly, recovered, regaining flesh much more rapidly than strength. She has just returned from a visit to Scarborough, looks almost as well as ever, but complains of slight pains in her back and legs. Menstruation is re-established, and is now attended with less pain than she has had for some years.

The tumour was egg-shaped, the smaller end having passed first through the os uteri. It was about ten inches long, and six or seven inches wide at the broadest part, and it weighed one pound two ounces avoirdupois. On section, it displayed an areolated fibrous structure, with numerous large vessels. There is a figure in Cruveilhier's "Anatomie Pathologique," 13th livraison, planche 6, fig. 2, which gives an excellent idea of its appearance. The microscope showed nothing but fibrous tissue without any cells.

Barnsley, Yorkshire.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

LIVERPOOL SOUTHERN HOSPITAL.

CASE OF INTESTINAL OBSTRUCTION—FAILURE OF ALL MEDICAL TREATMENT—ABDOMINAL INCISION—DEATH.

(Under the care of Mr. HAMILTON.)

[Reported by Gulston Wollaston, M.D.]

C. B. was admitted into the Liverpool Southern Hospital, October 23, 1863, under the care of Mr. Hamilton. She is a short, stout, florid Irishwoman, aged 48 years, and is the mother of nine children, and states she has always enjoyed good health. Six or eight months ago, she says, she began to suffer from general swelling of the abdomen, which, though varying in extent, has never disappeared entirely, and about the same time attacks of pain, referred to the umbilical region. She also describes a pain of a persistent character, which she refers to the left iliac region. Accompanying these symptoms was a tendency to constipation, but the bowels at this period yielded readily to the action of purgatives, and the general health does not seem to have been impaired. About three or four months before admission she suffered from an attack of English cholera (was "purged up and down"), accompanied by severe abdominal pain, but leaving her, after its subsidence, in much the same state as previous to its occurrence.

In September, the "attacks" of abdominal pain became more frequent, and increased in severity, but she did not state

clearly as to whether the "fixed" pain in the left iliac region underwent any change. The constipation became more marked, but still the bowels acted with the assistance of strong purgatives. The appetite has continued good, and there has been no loss of flesh or strength.

On admission, the abdomen was found to be considerably distended, and, when the patient was examined lying on her back, generally tympanitic, except in the hypogastric region, where the sound on percussion was somewhat dull. By turning her, first on one side and then on the other, and then making her assume the upright position, the depending region of the lower abdomen became dull on percussion, and communicated to the hand a well-marked sense of resistance, but no fluctuation could be detected, nor could any tumour be discovered. (She had been told that she was suffering from ovarian dropsy.) The stomach rejected all food, and the bowels had not been moved for four days.

On the day after admission (October 24), the bowels were acted upon three times by medicine taken by the patient the day before (castor oil and jalap), but the evacuations were not seen by any one. After this date there was complete obstruction, neither fæces nor flatus passing.

It will be tedious to detail the treatment; everything was done that could be suggested, but without effect; injections were given through a tube passed twenty-three and a-half inches into the bowel; purgatives were administered, but only added to the distressing vomiting; hot baths, fomentations of poppy, tobacco, etc., were tried, calomel and opium were resorted to, galvanism, etc., etc., but without avail.

On the 30th, seven days after admission, the vomiting became decidedly stercoraceous; and, at a consultation held the following day, the question arose, shall the patient be left to die, or shall Surgical means be resorted to?—as it was quite evident that nature could do no more. The case was fully explained to herself and friends, and that Surgical interference gave her a chance, however remote, of life. The suggestion was gladly grasped at, and it was resolved to open the abdomen. This was accordingly done the same day by Mr. Hamilton: an incision sufficiently large to admit the finger was made between the umbilicus and pubes; on the finger being inserted nothing abnormal could be felt, the incision was therefore extended so as to allow the introduction of the hand. On the left side (the side to which all the symptoms pointed) everything appeared perfectly natural; on the right, a hard body, evidently blended with the intestinal parietes, was discovered. A portion of intestine immediately above this was drawn forward, and an artificial anus made in the usual manner, and a large quantity of thin, light-brown feculent matter poured from the opening. She never rallied after the operation, and gradually sank and died in sixteen hours.

At an examination made next day, it was found that a scirrhous tumour, about the size of a large walnut, completely encircled the intestine at a distance of three and a-half inches below the ileo-cæcal valve, the constriction admitting only the tip of the little finger. All the organs were healthy, and there was only a slight inflammatory change in the vicinity of the wound.

MIDDLESEX HOSPITAL.

DOUBLE STRICTURE OF THE URETHRA TREATED BY FORCIBLE DILATATION WITH HOLT'S DILATOR.

(Under the care of Mr. GEORGE LAWSON.)

W. H., age 26, was admitted into the Middlesex Hospital on July 3. He had two strictures, one just in front of the bulb, and the other one and a-half or two inches from the meatus. He had been previously an in-patient in the Hospital on this account; and, although benefited at the time he left, yet the strictures had again contracted, and now caused him considerable inconvenience. It was with great difficulty that a No. 2 catheter could be introduced into the bladder. The urethra was excessively irritable, and after each introduction of the instrument he suffered from severe rigors.

After his admission into the Hospital, he was kept in bed; and after a few days' perfect quiet, and abstinence from stimulating drinks, a No. 4 catheter was passed. In anticipation of the rigors which had always followed after the catheter had been used, quinæ gr. ij., opii gr. ½, was given immediately after each introduction of the instrument, and succeeded in warding them off.

July 8.—To-day the man was brought into the theatre, and Mr. Lawson, having introduced Holt's staff, rapidly split up the two strictures, and immediately introduced a No. 9 catheter, which was fastened in the bladder in the usual manner. The man was returned to bed, and a pill of quinine and opium given to him.

9th.—Has passed a good night; had no rigors, and suffers no inconvenience from the presence of the catheter.

Three days afterwards the catheter was removed, and in ten days he was discharged from the Hospital quite well, never having had a single untoward symptom since the operation.

ST. GEORGE'S HOSPITAL.

EXOPHTHALMIC GOITRE—SLOUGHING OF THE CORNEA FROM EXPOSURE.

(Under the care of Mr. TATUM.)

THE notes of the following case are imperfect. It occurred some time ago. We give it as illustrating one result of this remarkable disease, recently the subject of an admirable paper by Dr. Handfield Jones.

Mary Ann E., aged 18, was admitted into St. George's Hospital under the care of Mr. Tatum, Nov. 26, 1851, on account of protrusion of the eyeballs. She was of a very pale, strumous aspect, with red hair and very light complexion. The eyes were so prominent, that when she closed the eyelids as far as possible, a portion of the cornea was still left uncovered. The protrusion had only been noticed about eight months, and enlargement of the thyroid body had been observed during the same period. The catamenia had never appeared. She complained of pain in the head. Sight was unaffected.

Treatment was commenced with preparations of iron, which had proved extremely successful in a similar case of exophthalmia, also occurring simultaneously with goitre in a young woman, who had been in Hospital under Mr. Tatum's care a short time previously. But this patient happened to take alarm at the sight of a woman in the next bed to herself attacked by erysipelas, and insisted on leaving the house a week after her admission.

She returned on Jan. 2, 1852, on account of inflammation of the left eye. This had been going on for about a week. She could not assign any cause for it. During the last two days sight had been entirely lost in the eye. On examination the conjunctiva was seen in a state of serous chemosis. There was a very deep and extensive ulcer, involving almost all that part of the cornea which corresponds to the upper segment of the iris, and the inner part of its surface was sloughy. The sclerotic vessels could be seen in some parts, and were injected. There was much circumorbital pain.

The treatment consisted of slight local depletion (by means of a few leeches to the temple and blisters behind the ear), combined with tonics internally; but it was quite ineffectual. The whole cornea became opaque, and gradually scaled away, sight being entirely lost. A copious discharge of pus came on, and the eyeball withered. A few days after her admission, lachrymation, circumorbital pain, sclerotic and conjunctival redness came on in the other eye, and on examination, a small transparent ulcer was seen on the cornea. The progress of the disease in this eye has not been noted; but it is believed that (though the symptoms yielded for the time to the treatment employed) this eye ultimately followed in the same course as the other, and that vision was entirely lost.

HOSPITAL NOTES.

BRIGHT'S DISEASE—HYPERTROPHY OF THE LEFT VENTRICLE—APOPLEXY.

THE concurrence of chronic Bright's disease (the granular kidney), hypertrophy of the left ventricle, inelastic, tortuous arteries, and sanguineous apoplexy, is a recognised clinical fact. It was strikingly illustrated recently by two cases at Guy's. In both the patients had been, until the rupture of the vessel in the brain, well, in the conventional sense of the word; yet, as people are doing every day, they went about, although particularly ill nowhere, in a state of general disease. They were seized with apoplexy, and died in a few hours. In one, the corpus striatum was torn up, and blood had escaped into the ventricles; in the other, the clot was in the pons Varolii. In such cases, as a rule, there is no attendant dropsy to point prominently to renal disease. Nor is this symptom gene-

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rally to be found in the slighter kind of apoplexy, apoplexy of the retinæ.

Besides the obvious practical importance, this association is most interesting as illustrating the clinical study of disease. Nothing could show better that it is to constitutional conditions, rather than to local damages, that we should devote our attention. Of course some diseases, especially in young people, must be thought of as damages to organs, although often brought about by constitutional affections, and although they produce secondary results in the greater part of the body. Thus, the mitral valve is damaged in acute rheumatism, and the organ is permanently defective. There is a good instance of local damage in Stephen's Ward, Guy's Hospital, under the care of Dr. Wilks —aortic disease, allowing regurgitation, following overwork in a young and very healthy man. In this case the heart's mechanism is deranged, but its tissue is good or healthily hypertrophied. But in the hypertrophy attending Bright's disease, and where there is a movable pulse, and perhaps an arcus senilis, we have quite a different kind of disease. In one, the symptoms are general, because the organ damaged is a central one; in the other, the symptoms are general, because the tissue changes are universal.

Before the sanguineous effusion we may do good to the patient, but our efforts are generally useless when blood has been effused in the pons Varolii, and unfavourable when in a part less important to life, as when hemiplegia results from rupture in the corpus striatum, or blindness occurs from retinal apoplexy. The place of rupture is, comparatively speaking, an accident, and in some instances of apoplexy of the retina, it is of less importance to the individual than the attendant hypertrophy of the left ventricle and the renal disease. Nay, sometimes the effects of rupture are insignificant, from the comparatively unimportant function of the organ in which it occurs, as in epistaxis, which now and then precedes retinal or cerebral apoplexy. But though the damage is slight, the symptom may have a very ominous significance if associated with the other conditions referred to, and scarcely any if these are not present.

To show still further how general is the constitutional condition which often ends so suddenly, so dramatically, we may mention the now-well-known condition of the retina, by which alone granular kidney may be, and often is, confidently diagnosed. But as we have already published a series of cases of this kind, with remarks by Mr. Hulke, we need not now dwell on it, except to repeat that it is often associated with apoplexy of the retina. Cases of this kind are not uncommon. A patient of middle age becomes suddenly "blind;" apoplexies are found at the yellow spot; the urine contains albumen. He gradually "recovers" from the blindness, and, indeed, sometimes to a surprising extent, and insists that he is well; and yet, still having no dropsy nor any œdema, his urine continues loaded with albumen, and he dies a few months later of rupture in a more vital part of the nervous system.

In another case, a patient has first an attack of hemiplegia and albuminous urine. He "recovers" from the hemiplegia, but a few months later has apoplexies of both retinæ, then paralysis of part of the face, and a few days later dies suddenly.

The first of these cases refers to a patient under the care of Mr. Wordsworth, at the Royal London Ophthalmic, and the other to one under the care of Dr. Hughlings Jackson, at the Hospital for Epilepsy and Paralysis. There is now also attending at the latter Hospital, under his care, a case of hemiplegia in a woman, forty years of age, who has the peculiar retinal degeneration alluded to and albuminous urine; and, although her sight is still good, and although, except for the hemiplegia, she would be said to be, speaking popularly, healthy, she must be considered to be in constant danger of further rupture in some other part, perhaps more important than the one lesion of which now produces the hemiplegia.

One great practical point in reference to such association of diseased conditions, is as to the value of certain premonitory symptoms in individual cases. For instance, as Dr. Gull remarked in a recent lecture at Guy's Hospital, a symptom like giddiness may have comparatively little significance, or be of very evil import. A very slight cerebral symptom should lead us to examine the heart and kidneys. If we found no evidence of disease in them, we might hope that the giddiness was not a warning of any grave evil; but if we found hypertrophy of the left ventricle, and if the urine were albuminous, the least giddiness would lead us to give a most cautious prognosis.

The same kind of reasoning applies to other diseases. A young man who has cardiac disease and sudden hemiplegia from plugging of the middle cerebral artery, or a patient who has hemiplegia following an attack of unilateral convulsions associated with a deposit of syphilitic lymph in the pia mater on the surface of the opposite hemisphere, have really, for treatment, diseases quite different to the hemiplegia in a patient past fifty, who has chronic Bright's disease, rigid arteries, a movable pulse, hypertrophy of the left ventricle, and an arcus senilis, although the same physiological system is damaged in all three cases. In fact, and this is most prominently true of hemiplegia, many diseases *of* the nervous system are rather diseases *in* it. Hemiplegia is generally due to rupture of a vessel rather than to primary disease of nervous tissue. It may be confidently asserted that it is, in cerebral disease, of just as much importance to examine the heart and the urine as it is to enter into a scrutiny of the symptoms of the actual disease for which the patient comes to us. Probably the treatment will not vary, whether the blood be effused in the retina, in one hemisphere, pons Varolii, or spinal cord. The physiology would be exceedingly different, but the pathology—effusion of blood in nervous tissue—would be just the same. In cerebral disease it is, therefore, of far greater importance, at least in a utilitarian point of view (and ours is a utilitarian Profession), to ascertain the state of the patient's circulation and viscera, than to get to know the exact position of the disease. We do not wish by any means to underrate the physiological study of diseases of the nervous system, but the clinical study of these diseases ought to be carried on *pari passu*. Sometimes the physiological fact and the clinical fact will point to the same conclusion. For instance, paralysis of *part* of the face shows *central* disease [paralysis of the whole of the face would indicate disease of a *nerve trunk* outside the central nervous system], and this coinciding with evidence of renal degeneration, shows that not only is the patient's condition dangerous, but that danger is at hand.

Whilst, then, in cerebral cases, whether slight giddiness, paralysis, or apoplexy, we diagnose, when we can, the exact seat of the disease, we should examine the heart, the urine, the radial and temporal arteries, the eye for arcus senilis, and we may, too, look at the retina for further evidence of tissue-change. In a word, when we study diseases as defects of organs, we must attend carefully also to the general signs of degenerations of tissues. As a final illustration of this principle we may instance syphilitic affections. Here a node on the tibia, in the liver, a nodule of lymph on the iris, or a mass of lowly-organised material on the surface of the brain, are pathologically one, although, as damages of different organs, they produce the most diverse symptoms. Yet the treatment of syphilitic inflammation of the choroid, iris, or pia mater, is the same, although the organ in which the syphilitically-diseased tissue exists is so very different. It is the development of such principles that gives so high a practical value to the teachings of Laycock, tending to substitute a rational treatment of the patient for a kind of artillery practice at the diseased point where his special ailment is localised when he consults us.

FORMIATE OF AMMONIA AND FORMIC ACID IN DISEASES OF THE NERVOUS SYSTEM.

If chemical homologies had corresponding therapeutical relations, we should not expect to find great energy in formiate of ammonia. Of course, identity of composition does not in any way imply identity of propertics either of form or of chemical relations, but identity of type is pretty certain evidence that the difference of chemical properties is simply one of degree and not of kind. Formiate of ammonia is the homologue of acetate of ammonia, formic acid being the acid from methyl alcohol, and acetic acid from common alcohol; and the difference in composition in these two acids, as betwixt each, in the series, is two equivalents of carbon and two of hydrogen. This gradual increment of carbon and hydrogen in this series is attended by a corresponding increment of properties, greater solidity, and a higher boiling point (19 centigrade). Now, it has been suggested that, as there is, with some discrepancies, however, a gradual ascent of physical and chemical properties, so there may be a corresponding one of therapeutical power. Such schemes of thought may be useful to suggest remedies, but not to decide on them. The following observations, gathered from the practice of Dr. Ramskill at the Hospital for Epilepsy and Paralysis, show that such reasoning cannot be trusted in the instance of formiate of ammonia. Although lower in the scale, chemically

it seems to have far more energetic properties than we are in the habit of ascribing to acetate of ammonia, our common saline. Probably the action of formic acid on the skin is strictly analogous to that of acetic acid. Formic acid is the acid found in ants, and also in the juice of the common nettle. Formiate of ammonia is used chiefly for internal administration; it is especially applicable to cases of chronic paralytic disease, accompanied by general torpor.

It is contra-indicated wherever there is reason to suppose activity in or about the seat of the original lesion in the nervous centres: irritable stomach also, whether the result of cerebral mischief or not, excludes its use. On the contrary, cases of reflex paralysis are most benefited; next, those cases where, from disuse, the muscles and nerves have become unable to convey commands of the will, or to execute movements. It is equally useful in paralysis of sensation as of motion. The dose is five grains. Given in larger doses than five grains, it produces vomiting. When it agrees, patients experience an epigastric glow, and it appears to act as a general stimulant.

Applied externally, we find in formic acid, diluted with an equal quantity of water (or less), the best local application for paralysed limbs. It restores circulation, and frequently produces the sensation of being stung with nettles, and occasions an erythematous eruption. As we have remarked, this acid is contained in the juice of the common stinging-nettle, and in ants. Just as burnt sponge had been used long before it was known to contain iodine, so ants have been used empirically. We do not attach much importance to the authority, but we may mention that De Leuw, the notorious quack oculist, almost always prescribed, in anæmic cases, an ointment, composed of ants of the larger kind mixed with lard, to be rubbed over the branches of the fifth and seventh nerves in the neighbourhood of the eye. There is a considerable quantity of formic acid in the bodies of these insects.

In some forms of epilepsy the internal administration both of the acid and its salt of ammonia has done great good; in others, apparently harm. We shall recur to the subject hereafter.

USE AND ABUSE OF STIMULANTS IN FEVER—OCCASIONAL ANTIPHLOGISTIC TREATMENT.

A few days ago we saw at Guy's several patients convalescent from fever. In reference to them, Dr. Wilks remarked on the treatment of fever by stimulants. A young man, who had had typhus fever, and who had been covered with the ordinary mulberry rash, had recovered without any. As there appeared no need to give any, Dr. Wilks wished to prove to his class that alcohol was not always necessary in fever, and that he did not by any means consider alcohol as an antidote to fever, for he found the disease always ran its course under every form of treatment. He considered the rule laid down by many of the older Physicians to be the correct one with regard to the treatment of all fevers; that in very many cases supervision was alone required, and that in others a stimulant plan was necessary; the only question being the quantity of alcohol required and the time when it was needed. He thought, therefore, that those who spoke of their success by the universal treatment by alcohol in all cases of fever, were adopting (to say the least) a very unscientific method, which was, in reality, one founded on such a reasoning as this:—That severe cases of fever are benefited by alcohol, and mild ones are not killed by it, and, therefore, it is safer to give it to all. The same may be said of those who declare carbonate of ammonia to be *the remedy* for all cases of scarlatina. It is, no doubt, of great value in severe cases, and in mild ones it certainly will not kill the patient. Dr. Wilks would not say, however, that wine and spirits did no harm, for in some cases he believed they were decidedly injurious, especially in young persons with typhus fever and violent delirium. He had such a case under his care, in which he ordered cupping to the back of the neck, and which was followed by quiet and sleep. He was a total disbeliever in the change of type theory; for such a case as this, and two others which he had seen bled, and yet did well, entirely refuted such an opinion. Although he believed the present plan of treatment by support saved more lives, he was quite sure, that if no stimulants were given, and that if patients were bled, that the greater number would recover as heretofore.

FACULTY OF MEDICINE OF PARIS.—The Minister of Public Instruction has just made the appointment (which is likely to be popular with both Professors and pupils) of M. Tardieu as Dean of the Faculty, in place of M. Rayer, resigned.

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Medical Times and Gazette.

SATURDAY, JANUARY 23.

THE INFLUENCE OF THE SOCIAL POSITION OF THE MEDICAL PROFESSION ON MEDICAL EDUCATION.

THE plea for the dunces of the Edinburgh Medical School, lately published, has created a warm sympathy for those of other schools. The London teachers lament the number of young men who come to town and enter to lectures, but never go through with their studies, nor pass their examinations. Some become actors, or literary hacks, photographers, dentists, or tradesmen, or take situations as dispensers in shops and surgeries, or as "unqualified" assistants, or emigrate, or otherwise disappear. The causes of these failures are not to be sought, as at Edinburgh, in excruciating examinations at Hall or College, but in the conditions of the students themselves. A few of these wasters are without means to continue their studies, more are idle, and still more are deficient in the mental training and capacity required to master the multiplicity of subjects put before them. With little Latin and no Greek, Celsus and Gregory were always awful phantoms to the illiterate candidate at "the Hall," not to be as easily laid by "grinding" as the Professional requirements of examinators. And now that the screw of the preliminary examinations is being tightened, a cry of anguish arises from this class. At Edinburgh this must be even more keenly felt than in London, for, until lately, men occasionally "got through their Latin" there, to whom the grammar and *delectus* were unapproachable mysteries.—*Hinc illæ lachrymæ* of the Edinburgh Jeremiad. It must, however, be considered a matter of congratulation for both the public and the Profession, that examinations thus serve their purpose, and so many unfit lads are repelled from it to more congenial pursuits, inasmuch as the evils worked by those who just squeeze through the examinations and register are clamant enough. Without capital to purchase a connexion, or to decorously bide their time until they make one, they must get practice at any sacrifice of labour, character, and dignity. They would rather not; but, like the Apothecary in "Romeo and Juliet," their poverty and not their will consents to unprofessional and degrading courses. If the evil went no further, they alone would suffer; but unhappily, the whole body suffers with them. The great public judges of the Profession generally by the conduct of these notorious few. Practitioners of capital and gentlemanlike feeling get disgusted with the unseemly competition they are exposed to, and betake themselves to other pursuits; or, if they remain, lose all *esprit de corps* in discovering that the presumptuous, boasting, pushing quack, whether in or out of it, is too often preferred to the scrupulous and honest practitioner. Thus, the moral force of the Profession is wasted away by the zymosis of a moral *materies morbi*.

The common and obvious remedy proposed for these acknow-

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ledged evils is, that the candidate shall be required to have the education of a gentleman. If to this be added a knowledge of the elements of the natural sciences, as botany, natural history, natural philosophy, chemistry, and the like, before the student commences his Professional studies proper, he can then be finished off as a Professional man,—well-taught and well-trained, a scholar and a gentleman. Doubtless, if such candidates can be got, the remedy is certain; but will they come? What is there in the Medical Profession to attract such a class? These would be men of capital in every sense of the word. The very requisites imply good natural powers of mind, time to cultivate them, and money to pay the teachers and maintain the unproductive learner while being taught,—requisites which would ensure success in any other calling or profession whatever. It is not an unbusiness-like proceeding, therefore, if the parents of a youth so endowed inquire what returns, as compared with others, the Medical Profession will afford for the capital invested. And certainly these are at a minimum. Wealth is attainable, but by no means in proportion to some other professions or to commercial or manufacturing enterprises. Social position is money's worth; it follows upon wealth, when got in any department of business, provided there be moral worth and tact also; but in all the great professions except the Medical, it goes with the profession. High offices in Church and State, and military and naval rank and consideration, are prizes in the other professions; but snubbing and degradation pervade all ranks of office in the Medical Profession, from the army and navy down to the Poor-law service. A poor curate or ensign is looked down upon by the wealthy because he is poor; but he is, nevertheless, socially a gentleman. Even in the novels favourable to the Profession, the assistant to the village Doctor marries the poor governess at the rectory, while the curate or young officer of the army weds with the rector's sister or daughter. Then, further—the rank which titles afford in other professions is unattainable in ours. A knighthood is rare in the Medical Profession; a baronetcy rarer; a peerage unheard of; and, lastly, to the ordinary mind, looking at the Profession as an industrial occupation and not as a scientific pursuit, it is more repulsive than attractive. There is, therefore, no reason whatever why the sons of the nobility and gentry, or of the more ambitious of the commercial and professional classes, should enter it in preference to other professions, in the absence of any suitable return for the capital invested in the form of intellectual power, time, connexions, and pecuniary outlay. Now, as the mere addition to the Profession of a considerable number of men possessing these requisites would suffice to raise it in every way, it follows that all reforms in Medical education to be effectual must have as their ultimate object this end in view.

Tested by these principles, some of the educational schemes current appear to be worse than useless. That which has lately emanated from Edinburgh is, perhaps, the weakest and the worst. One of the evils to be obviated is undue competition by poverty-stricken, ill-bred, and ill-taught practitioners. Mr. Syme would legislate in favour of the class of students which supplies this class of practitioners. They have naturally a horror of strict examinations; he would therefore have examinations entirely abandoned, and revert to the old and corrupt system of examinations by the teachers individually. And, in deference to the same dull mediocrity, he would destroy the liberty of teaching. "The most brilliant eloquence and the profoundest science" are of no use in teaching, he argues, for they may inculcate "doctrines positively injurious in the practice of our Profession." He would have the teacher called upon from time to time by his colleagues, to "produce a syllabus of his course;" and if he "taught doctrines not conducive to sound practice," or "allowed an unruly hobby to carry him away," Mr. Syme would have his colleagues to censure, and, if necessary, depose him! In this way, those teachers who disturbed the dull souls amongst the professors and students by new principles in science and new methods in practice, could be held in salutary check or got rid of. And, since the Medical sciences have been so greatly developed of late years that they cannot now be properly taken in by the poor dull souls aforesaid, he would not extend the period of professional study at all (for that demands capital), but rather hints at a diminution—"*less* than three years with a winter and summer session would certainly prove insufficient," but three might serve.

Mr. Syme's scheme is obviously calculated to keep up and increase the number of candidates defective in the capital requisites we have indicated; anything more stringent as to mental qualifications, time, and power of paying for teaching, would diminish the number in proportion to the stringency. But it is equally obvious that such stringency would seriously influence the prosperity of the Scottish Universities. They, Mr. Syme observes, "are the great Medical seminaries of the country;" they "at present educate more students than all the schools in London put together;" in them teaching is a profession, and not "merely a step to something better." The conclusion, therefore, naturally follows, that the number of students must be kept up in the interests of the teachers. And to this end teachers and taught must be kept at a low level of attainments.

It is true that Mr. Syme proposes that no youth should be allowed to commence Medical studies until he is eighteen years of age; but this is just as much in favour of dull mediocrity as his other propositions. Some youths of fifteen have more intellectual power and capacity than others of twenty. These he would repress from the ranks, because power and time are correlatives; while the dull souls would spend the years between school and Medical classes in a half apprenticeship, if not in more menial occupations, hoping to "grind" through the preliminary examinations.

Audacity quite as often marks imbecility and ignorance as wisdom. Mr. Syme has (happily, we hope) so mooted the question of Medical education, that men must take either the side of scientific progress or barbarous retrocession. His propositions are too absurd, it is true, for adoption; but they should serve to stimulate the Universities of Oxford, Cambridge, London, and Dublin to a more solicitous education of the general practitioner. As for Edinburgh, we can only hope that Mr. Syme does not represent the opinions of the University.

The Medical Council will doubtless nip this attempt at a Dutch auction system in the bud; but more may be expected than this. It is within the province of the body, in the interests of the public and of Medical education, to submit to the Government, and through this to British statesmen generally, that there is an imperative necessity for giving due rank and remuneration to at least all public Medical officers, whether civil or military, as one means of attracting a better class of candidates for entrance into the Profession and the public Medical service. Nor would it be amiss to add, that the higher appointments in the State in which Medical knowledge is useful, should be filled by Physicians and Surgeons, and not by officers in the army or members of the Bar as heretofore. The Medical Profession have a right to expect that as to these it should be placed on a level with at least the Church and the Bar, if not with the military profession. If such were now the state of things, we should not have had members of the Medical Council so forgetful of their own dignity and of that of the Profession to which they belong, as to seek out of their body and out of the Profession for a person sufficiently high-bred and distinguished to preside over their deliberations.

THE BRITISH PHARMACOPŒIA.

We may congratulate the Council on the appearance of the first British Pharmacopœia. Doubtless, the work has been difficult, tedious, and expensive; but so it is when you build a new house, if there are old ruins to be cleared away, and the interests and tastes of many proprietors to gratify. Now that we have one Pharmacopœia, the task of future revisions will be easy. The present work has just the defects which

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are unavoidable in all literary works which are joint products of more than one head. It is difficult to hit the mean between too great diffuseness and too great exclusiveness; and it is more easy to keep out what displeases every one than to include what shall please all. We think the list both of Materia Medica and of pharmaceutic compounds might have been larger.

A pharmacopœia is to Medical Practitioners what a regular system of coinage is to the merchant. For every man to be compelled to write out all the ingredients of every remedy, would be like going back to the times when the great Bedouin sheik, El Khalil, weighed out his silver to pay for the cave wherein he buried his wife. It cannot contain *all* the drugs used by *all* Practitioners, but it may contain most of those used by men of repute, and it may give a public authoritative description of the quality which should belong to each drug or compound. Every man is conscious of the amount of labour saved when he writes *Tinct. opii*, instead of defining the ingredients and strength of the preparation; and the same rule holds good with regard to such combinations as chalk mixture, steel mixture, and the like. It would have been a convenience both to prescribers and to dispensers, if the number of the latter class of formulæ had been greater. Why should there not be off-hand formulæ for many medicines in daily use, such as the black draught of senna and salts, the red draught of infusion of roses and salts, the white draught of sulphate and carbonate of magnesia, black-wash, saline draught, and the like? Gregory's Powder may now be prescribed as Pulv. Rhei Comp., and it would have been well had set formulæ been given for other combinations in common use. The new Pil. Plumbi Comp. is an example.

We may regard the "British Pharmacopœia" as a great improvement upon any of its predecessors, which have now coalesced and become extinguished by it. It is a gain to have one instead of three. There is a vein of common sense and practical usefulness throughout. The language is English, which need not be regretted, since it is impossible to make classical Latin comport with the description of things, processes, and notions, of which Latin writers and speakers never dreamed. The book is handsomely and clearly printed, and we notice only one error, viz., page 317, where "Resin of *Jalap*" is given as the translation of "*Scammoniæ Resina.*" The Index, an important thing for hurried readers, is not so full by one-half as it should have been; and the nomenclature and arrangements have just that small amount of inconsistency which is a hindrance to rapid reference. For example, a man who wants Resin of Jalap will look in vain under "Resin," or "Resina." If he wants Tincture of Opium, he will not find it under "Opium." A larger Index would have been a great boon. Yet, after all, this is a mere *macula*.

One thing which will please the practical reader is the return to old definite empirical names, which will hold good in all times; whilst names derived from the idea of the chemical composition and the symbol of a drug, may, and must, vary according to the views entertained by philosophers from time to time of the "essential nature of things." So now, an apothecary, who was in practice before 1815, may rub his eyes and dream that he is young again, and quite up to the present day, when he finds the name "Calomelas" restored, with the synonym Subchloride of Mercury, and the symbol Hg 2 Cl.; whilst the name "Corrosive Sublimate" is restored to the sister compound with the synonym Chloride of Mercury and symbol Hg. Cl. Woe to the patient whose Physician should now hastily write "R. Hyd. Chlor., gr. v." We would suggest that in any future pharmacopœia the plan be carried further. Why not perpetuate the names of the good working men who gave us our most valuable formulæ? Can no niche be found for Galen? Why should not Hofmann's name still be associated with some soothing preparation of ether, even though the familiar Spiritus Ætheris Sulphurici Comp., or Hofmann's Anodyne, have lost its place on the roll, and is omitted in this new Pharmacopœia? Why not give that little reward for services rendered to mankind, which would cost no more than keeping up the names of James's Powder, Dover's Powder, Griffith's Steel Mixture, Marshall Hall's Aloes Pill, Huxham's Tincture of Bark, Fowler's Solution of Arsenic, Plummer's Pill, Battley's Liquor Opii and Liquor Cinchonæ, Gregory's Powder, Henry's Magnesia, Ward's Paste, Goulard's Extract, and the like? Paris's name should have been associated with the Lead Pill, and Prout's with the Phosphate of Iron? We possess the labours of these men, why not pay their *manes* this slight compliment? Here we have spoken only of the departed, but we know that there is many a man still amongst us who has been labouring hard for years at the improvement of the drugs in daily use,—we need mention only the names of Squire and Lloyd Bullock,—and without whom many of the preparations in the first British Pharmacopœia would never have seen the light. But a severe and frigid etiquette has caused the names—not only of bygone worthies to whom we owe our best formulæ, but even of the working committees and real authors—to be suppressed, although those of the Council appear at full length.

The book will shortly be in the hands of our readers, who will besides have the advantage of reading a series of lectures which will be delivered immediately at the Royal College of Physicians, and reported in this Journal. We need not, therefore, add more at present than a very few comments on the points which have excited our own curiosity in cutting open the pages, and which probably are those which most of us look at first.

Of the weights and measures everybody knows the history, as we gave it in *Medical Times and Gazette*, 1862, Vol. I., p. 562. We have now only the imperial pound of 7000 grains, the ounce, one-sixteenth of the pound = 437·5 grains, and the grain. All the barbarous and confusing old symbols—ℑss., ℑj., ʒj., ʒiss., ʒj., etc.—may now go to the cemetery whither their astrological colleagues—☉ ♄—have gone before them. The *ounce* even is superfluous and mischievous. The ounce, half ounce, quarter of an ounce, etc., have no definite relation to round numbers of grains. It were far better to write so many grains at once. If any one who consults the formula for Tincture of Opium, for example, could see at a glance how many grains to the pint, he could soon calculate the dose of the tincture. The old tincture contained the soluble pint of one grain in 13·33 minims, or 720 grains to the pint. The new contains 656·25 grains to the pint, or about one grain to 11·3 minims. Surely, an even number of grains per pint would have been more convenient.

Some remedies are added that did not appear in the last London Pharmacopœia, as Sulphurous Acid, Benzoate and Phosphate of Ammonia, Solution of Terchloride of Antimony, Oxide of Silver, Arnica, Bebeerine, Bael, Precipitated Carbonate and Phosphate of Lime, Indian Hemp, Chiretta, Cocculus Indicus, Collodion, Kousso, Digitalin, Arseniate of Iron, the Citrates of Iron, and of Iron and Quinine, Magnetic Oxyde, Perchloride and Pernitrate of Iron, Phosphate, Granulated Sulphate, and Iron reduced by Hydrogen, Glycerine, Hemidesmus, Acid Nitrate of Mercury, Kamela, Cherry Laurel Water, Carbonate and Citrate of Lithia, Heavy Magnesia, Matico, Podophyllin, Permanganate of Potass, Sugar of Milk, Santonin, Arseniate of Soda, Pyroxylic Spirit, Valerianate of Zinc. We are glad to see the Aromatic Sulphuric Acid, but miss the Liq. Arsenici Chloridi, in which many skin Doctors put great faith.

It is a curious thing to compare the list of new remedies admitted into the Pharmacopœia, with a list of those which are advertised by zealous pharmaceutic chemists, and used by Physicians of repute even, without including some whose good effects are only predicted *à priori* by credulous rationalistic Physicians. It takes a long time for even a good remedy to take decided rank. Some few are, perhaps, admitted by favour of some influential prescriber, only to linger till they shall be ignominiously expelled at the next

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revision. There are even some in the above list which have a suspicious look,—as the Phosphate of Ammonia, Oxide of Silver, Arnica, and some others. Meanwhile, there are some highly fashionable remedies left out. What is prescribed more often and more confidently than pepsine? We miss the Oxalate of Cerium, Chloride of Gold, Actæa Racemosa, the Cotyledon, Galium, Bromide of Ammonium, and many others much in request. How much, too, has been written to show that preparations of manganese *must* do good? But admission to the Pharmacopœia is a sort of canonisation, which every drug cannot attain to. They must bide a further test of experience. All are glad to see, by the way, that cod-liver oil ought to be *pale*, and extracted from the fresh liver, and with a *bland* fishy taste. We are certainly astonished to find so little use made of *glycerine* for external applications. Our decided impression is, that the principle of exclusion has been carried too far; and that the Council would have acted wisely had they given recognised place and formula for more preparations, and if a larger number of prescribers and pharmaceutists had been represented.

Some notice ought to have been taken of the concentrated infusions which are very largely used by Surgeons and chemists, in order to avoid the waste and trouble of preparing fresh infusions from time to time. The new Pharmacopœia has an "Extractum Cinchonæ Liquidum" identical with the former "Infusum Cinchonæ Spissatum," and it has analogous preparations of Ergot, and a few others. But "Concentrated Infusions" of Senna, Gentian, Calumba, etc., are in constant use, as a means of making common infusions by dilution. Are they perfect substitutes? Certainly, they are not so agreeable. But if they answer the purpose, the Pharmacopœia should adopt them, and give them the stamp of authority.

The work comprises—First, a list of the Materia Medica; secondly, of the preparations and compounds; and, thirdly, of substances used in manufacturing or testing. Suppose we glance at the *Narcotics*. Part I. gives full details as to Opium, which is described in its best form, and with a lime-process for its quantitative analysis. Eleven internal and four other preparations are then enumerated, and may be found in Part II. Hydrochlorate of Morphia heads the list. A process for the extraction of this salt is given, in addition to the tests for purity, which alone figured in the former London Pharmacopœia. Acetate of Morphia is omitted. Besides this, we have the extract—a new liquid extract—(Liq. Op. Sed.), and a Pilula Opii, replacing the old Compound Soap and Storax Pills. There is also a formula for Pil. Plumbi cum Opio, with gr. iij. of the former, and gr. ss. of the latter, in a four-grain dose. The Pulvis Cretæ Aromat. c. Opio contains, as before, one-fortieth of opium. Pulv. Ipecac. c. Opio replaces the old Dover's Powder, but retains the proportion of 1 in 10. Pulv. Kino c. Opio, with different quantities, preserves the former proportion of 1 in 20. Tinctura Opii is exactly the same in words, but is weaker in the proportion of 437·5 to 480. Tinct. Camphoræ c. Opio takes the place of Paregoric, and contains a very minute excess of camphor, with an unimportant increase in the quantity of both opium and benzoic acid. Vinum Opii slightly increases the quantity of the opium, containing 656·25 grains to the pint, instead of 600, and omits the cinnamon and cloves, which kept up its alliance with Sydenham's Laudanum. The Enema Opii retains the ♏xxx. of laudanum, with half the quantity (2 oz.) of its starchy vehicle. The Liquor Morphiæ Hydrochlor. is of half the strength of the present London preparation.

Among the other narcotics we find Aconitia with a process for its manufacture, and Digitalium with the same addition, both absent in the last London Pharmacopœia. Atropia is directed to be made by a percolation tincture treated with chloroform. Its sulphate is omitted altogether. From Aconitia an ointment is prepared, and the same from Atropia; a "liquor" containing gr. iv. to the ounce is given as the common formula of alkaloids. The roots and leaves of the plants, with their officinal formulæ, are for the most part retained.

The old Pilulæ Conii Co. is expunged, but Conium appears as a fruit, from which the tincture is made, and the plant itself, in the form of fresh leaves and branches, dried at a heat not exceeding 120°. From these, the Cataplasma Extractum and Succus are to be manufactured. In a similar way directions are given for the Extract and Tincture of Hyoscyamus.

Dulcamara appears as the young branches dried, from indigenous plants which have shed their leaves, an infusion of which appears identical with the old decoction. Tobacco, and the Enema, its only preparation, are not materially changed. Lactuca and its extract are not mentioned, neither is the Extractum Papaveris, which was very useful as an external application. The Extract of Stramonium continues much as before, and a tincture is added, which is directed to be made from the seeds.

Ferrum.—Iron is first represented by a new preparation—the Arseniate; also by the Citrate of Iron and Ammonia, as well as the Citrate of Iron and Quinia. The Ferri Iodidum is added to the Syrup of the same, and the Ferri Oxidum Magneticum appears for the first time, as well as the Peroxide of Iron, in addition to the former Hydrated Peroxide, which remains, though with some change in the process of manufacture. The Liquor Ferri Perchloridi is directed to be used in the preparation of the Tincture Ferri Perchloridi, apparently replacing the old tincture of the Sesquichloride, but differing principally in nomenclature, A Liquor Ferri Pernitratis does not occur in the last London publication; and the same remark applies to the Ferri Phosphas, the Ferri Sulphas Granulata, and the Ferrum Redactum. Ferrum Tartaratum takes the place of Ferri Potassio Tartrat. Ferri Ammonio-Chloridum, and its Tincture, are expunged from the list, probably with reason.

Expectorants.—Ipecacuanha is introduced into the Pulv. Ipecac. c. Opio, Trochisci Morphiæ c. Ipecac., and appears alone in the Vinum Ipecac. Squills are retained in the form of the Pil. Scillæ Co., and as a Syrup not previously officinal, which represents the Oxymel *minus* the honey. The Tincture also remains. Balsam of Peru forms no compounds; that of Tolu remains as Syrup, Tincture, and as an ingredient in the Tinct. Benzoini Comp. Ammoniacum, as an internal remedy, is still used in the simple form of Mistura, and also in the Pil. Scillæ Comp. The other expectorants, with some few omissions, do not appear to be materially changed.

Iodine.—Iodum is to be resublimed, and from it a Liniment, Tincture, and Unguentum Comp. are made, the first two differing only in strength from one another, the last preparation practically identical with that now in use. The Liquor Potassii Iodid. Comp. is not inserted. Iodide of Potash, for the manufacture of which a process is given, concurs in forming the three preparations above, and its own simple ointment also. Potassii Bromidum figures for the first time, but without any accessory formulæ.

This may suffice for the present about the new British Pharmacopœia.

THE WEEK.

RECOVERY OF H.R.H. THE PRINCESS OF WALES.

HAPPY, as is the kingdom with no annals, must be the confinement, followed by no event save uninterrupted recovery. Bulletins have ceased to be issued, and Dr. Arthur Farre is no longer a guest at Frogmore. Dr. Jenner visited the Princess during the temporary illness of Dr. Sieveking.

Dr. Arthur Farre and Dr. Gream have been gazetted as Physician-Accoucheurs to her Royal Highness. It is no disparagement to either gentleman, if we add that there are other men of University education and profound knowledge of natural science, who have worked hard at teaching, at original research, and in the composition of books received as authorities on obstetric subjects, all over the world, to whose names the Professional mind reverted when contemplating the possibility of new appointments of this kind. It is not possible to make

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all Court Physicians who are worthy of it. But the Profession may congratulate itself that the Prince's advisers had so large and unexceptionable a set of men to choose from—that the number of eligible men far outweighed the number who could possibly be chosen. In the present instance, both the suffrages of the Profession and of the aristocratic female world are well represented. If we may say of the one that his scientific repute is above praise, we must record it of the other, that the fact of obtaining the confidence of the most refined, sensitive, critical, and fastidious community on earth, shows the possession of powers much to be envied. "Principibus placuisse viris," or "fœminis," is not the work of a fool; and he may well be vain, for whom the highest women of England fought so earnestly in every *salon*, and so successfully as they did for Dr. Greenn, about the appointment of Physician-Accoucheur to H.R.H. the Princess of Wales.

THE NATIONAL REGISTRATION ASSOCIATION.

Dr. Henry G. Wright, of 23, Somerset-street, has consented to be treasurer of an Indemnity Fund, for the purpose of relieving Mr. Lavies from the pecuniary claims which are allowed to fall upon him, through the failure of the members to pay up their subscriptions. We must return to this matter next week, hoping meanwhile that such a blot on the *esprit de corps* of our Profession will soon be wiped out.

THE CRAWLEY COURT-MARTIAL AND ITS RESULTS.

The proceedings in the Crawley court-martial have been summed up by some remarks from H.R.H. the Commander-in-Chief. The accused colonel is almost the only person who has escaped scatheless, and he returns to the command of his regiment with a few words of advice from the Horse Guards. Not so, however, the witnesses. Major Swindley, Adjutant Fitzsimon, and Surgeon Turnbull have, in reality, undergone their trial, and received a sentence of dismissal from their regiment. In future cases witnesses will do well to remember the facts supplied by the few courts-martial of late years. Into Surgeon Turnbull's conduct a court of inquiry is held. The president of that court is, we understand, Major-General Eyre, and the members are Medical officers of rank. We have neither ratified nor entirely supported the course pursued by the Surgeon of the 6th Dragoons, but we have stated what might and ought to be urged in vindication of his conduct and that of our Profession. One point, however, cannot be too strongly dwelt upon. This court of inquiry is held upon the Medical records of the regiment, and has ostensibly arisen from the discrepancies (real or supposed) in the case of a Sergeant-Major Wakefield. Now, putting aside every question of the proper or improper conduct of the Medical officers, this matter was totally and entirely irrelevant to what was the subject of the late court-martial. This was not about Sergeant-Major Wakefield, but about the arrest, illness, and death of Regimental Sergeant-Major Lilley, and no one else. The Horse Guards, apparently, have seized upon this distinct and irrelevant subject for saddling one of the Medical officers, who was a witness for the prosecution, with a large amount of discredit and opprobrium. On the proceedings or finding of this court of inquiry we can have no right to enter or venture an opinion. No doubt the conclusions arrived at will be just and fair; but we only desire to call attention to the fact, that a Medical officer's conduct is called in question upon a case which had nothing whatever to do with the subject for which he was a witness.

And here let us advert to another subject. All cannot be right in the Army Medical Department, or we should not read of the resignation of Assistant-Surgeons of many years' standing, and two such appeared only the other day. It is contrary to common sense to believe that such resignations would take place—it is contrary to all the ordinary experience of life to find men voluntarily disconnecting themselves from a certain means of livelihood for the more precarious chances of success in civil life—if some grave defects did not exist in the department which they quit. The fact is, that the Army not only offers no chances of speedy success to good Medical men, but it holds out so little probability of promotion within a reasonable time, that really good students refrain from entering it. The discontent is widely spread. In some cases the grounds on which it is urged are substantial enough, such as the above, and the degrading duties of branding soldiers, etc.; in others the reasons are more indefinite, but the discontent undeniably exists.

There are rumours in abundance about changes in the department, but they rest on no other foundation than the necessity which is supposed to exist for supplying the ranks of the Army with Medical material. So long as Government can get Medical candidates, so long will there be no changes. That is our opinion, and we commend the lesson which flows out of it to the attention of Medical aspirants for Army honours.

SURGEON TURNBULL AND THE HORSE GUARDS.

Since the above was in type we have been informed that Surgeon Turnbull has been entirely exonerated by the Court of Enquiry from the charge of interpolating the Medical cases in the Hospital Registers of the 6th Dragoons. We learn that this matter had already been fully investigated by Colonel Crawley, in India, and that his bringing it before the Aldershot Court-martial was an adroit means of diverting attention from the charges against himself, by damaging Surgeon Turnbull in the eyes of the Court. Notwithstanding the failure of the attempt to get up a charge against Mr. Turnbull about the books, it is said that he is about to be placed on half-pay by the Commander-in-Chief on account of the *animus* which he is alleged to have shown in giving his evidence. This may be a warning to Medical officers for the future not to give any evidence that is not palatable to the Horse Guards.

THE REPRIEVE OF TOWNLEY.

We are much indebted to the magistrates of Derbyshire. Their memorial to the Home Secretary, though up to the present time powerless to affect the fate of George Victor Townley, has been productive of two very notable results. It has made public the startling fact, that by the unremarked introduction of the two words, "or death," into an Act of Parliament providing for the maintenance of criminal lunatics—a re-enactment, introducing these two words (3 and 4 Vict. c. 54), of an existing law (9 Geo. IV., c. 40)—the power of abolishing the punishment of death is given to "any two justices of the peace, and any two Medical men;" and it has procured the publication of the Report of the Commissioners of Lunacy on Townley's case.

The first of these two matters will doubtless be amply discussed and commented on elsewhere; it is not exactly suited to these pages; but probably not even the most sentimental advocates of "the deep cry of humanity's voice"—that is, of a sympathy with the "poor murderer," not with his victim—can wish to see the power and majesty of the law, so masked and juggled away—the brightest and purest prerogative of the Crown transferred to such hands.

We are more concerned with the Medical part of the case. The Report of the Commissioners of Lunacy is highly creditable to them. We must own that the publication of all the documents concerning the case has wholly freed Sir George Grey from the suspicions of almost criminal weakness and sentimentality which had been raised against him—suspicions entirely and very naturally due, however, to his conduct in some other cases; but, after Mr. Baron Martin's two letters, he could not do otherwise than direct an inquiry into the prisoner's state of mind, and for this purpose he could not have employed better machinery than the Commissioners of Lunacy. Their Report is a very careful and well-considered document. They state that they found the prisoner always

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"remarkably calm, quiet, and self-possessed;" that "his views of right and wrong, false as they are, appear to have been coherently acted upon, and with a full sense of what they involved;" and that "what his mental condition is now, it had been throughout the entire period of his imprisonment;" they give weight to his "extravagant opinions;" "his extraordinarily perverted moral sense;" and "the hereditary taint alleged, and apparently proved, to have existed in the family of his grandmother;" but they conclude in these words:—

"Being of opinion, therefore, that the prisoner continues to be now in the same mental state as when he committed the murder and underwent his trial, we think that, applying the law as laid down by Mr. Baron Martin to this case, the prisoner, George Victor Townley, was justly convicted."

It cannot be imagined, then, that this report would have saved Townley; and Sir George Grey had already expressed an opinion that the report of the trial "did not appear by any means conclusive" as to the alleged insanity of the prisoner. But now stepped in the *Deus ex Machinâ*, in shape of the certificate signed by "any two justices of the peace and any two Medical men," and bore the murderer triumphantly away. The jury, the judge, the Home Secretary, and the Commissioners all seem to have done their duty, and to have done it well; but law and justice were eventually taken out of their hands: whether finally remains to be seen.

Of the part played in the affair by the Surgeon of the gaol it is not pleasant to speak. A more *naïve* and more pitiable confession of vacillation and confusion of mind than his letter has perhaps never been read. Townley became his prisoner, August 24. October 6 he states in his journal—"Townley, good health, mind and body." He thought "his mind was weak, and he was ill-educated," but "was impressed, as the public were, that he was sound in mind and body." The grammar equals the logic: the Surgeon seems to think that the public had the same opportunity for judging of the mental state of a man, then in gaol for six weeks, as he had. When the time of the assize was settled, it occurred to him "that the judge might ask his opinion" as to the prisoner's mental condition, so "for seven or eight weeks" he held repeated discussions with him—resulting in "sore perplexity." "Sometimes I thought he was insane. Again I thought he was sane." He consulted with Dr. Hitchman, "and our joint opinion was that no case of legal insanity could be established, and that an intelligent jury would be certain to find him guilty." One hopes he has now found rest; but, alas! for him, the great psychologist comes down, and all is again doubt and confusion; but after carefully reading Dr. Winslow's opinion, and after "putting all the varied and accumulated facts, opinions, etc., together," he comes "to the conclusion, through the portals of doubt, that Townley was of 'unsound mind.'" And then he illustrates in a most curious way the difficulty of diagnosing insanity; "like a broken leg or a dislocated shoulder, it often needs close, protracted, and repeated investigation to fathom it." What will Surgeons in general say to this? It may, perhaps, in rare cases, be difficult to state the precise nature of the injury to a limb, but surely not whether it is unsound or no? But even now there was hesitation. "Almost till going into the witness-box I was undecided as to the opinion I should give. I told Mr. Leech (the prisoner's attorney) I should be guided much by what transpired in court." Mr. Gisborne talks about "bigots and cowards adhering to an opinion once entertained," "whereas men of good sense and honesty pursue a more meritorious course." We do not doubt for a moment his "honesty;" but when we find his opinion taking hue, chameleon-like, from the mind he is last in contact with, we must take leave to doubt his "good sense." That his motives were throughout "honourable" and "creditable" to his feelings, if not to his judgment, no one questions; but we must venture to entreat that, for his own credit and the credit of the Profession at large, whatever he may do or not do, determine or doubt, about any future case, he will never again rush into print.

FROM ABROAD. — MASTURBATION IN GIRLS—ANIMAL MAGNETISM IN SAXONY — SPONTANEOUS GENERATION — THE ASSUMED PHYSICAL DEGENERATION IN FRANCE.

M. Broca, at the last meeting of the Paris Surgical Society, related the case of a girl, aged only 5 years, who, together with great precocity of mental power, exhibited excessive genetic excitement in the shape of the most uncontrollable masturbation. The most assiduous watching and various mechanical means had been resorted to in vain, until at last the child became excessively emaciated, and delirium with hallucinations ensued. After various means had been tried in vain, the amputation of the clitoris was proposed; but, before resorting to so extreme a measure, M. Broca determined to try a modification of the ancient practice of *infibulation*. Having scarified the labia and brought them together by means of a suture, he succeeded in producing union by first intention; so that the clitoris and labia minora are now protected from contact by means of a bridge or barrier of about half a centimetre in thickness. There only exists a small aperture for the passage of the urine at the lower part of the vulva scarcely large enough to admit the point of the little finger. As this operation had only been performed a few days, its result remains to be proved; and we should not have noticed the case now, had not its relation to the Society called forth an account from several of its members of their experience in this distressing affection. MM. Morel Lavallé and Deguise, indeed, stated that they had no expectation of success following the procedure followed by M. Broca, as masturbation will still be practised beneath the sort of bridge which has been constructed. M. Deguise would have preferred cauterising the genitals, recollecting the great benefit which followed this practice, continued for a year, in the case of an insane youth violently addicted to masturbation. M. Richet maintained that it is not in this or that portion of the female genitals that the sensations consequent on masturbation are capable of being excited, any portion of them, whether the clitoris, walls of the vagina, cervix of the uterus, etc., being liable to be so stimulated. Some years since he removed the entire clitoris in a girl, aged 17, who, by excessive masturbation, had reduced herself to a mere skeleton. The patient recovered her flesh and strength, and for a considerable time lost her bad habits. Eventually she relapsed, suffering as before, the seat of excitement now being the neck of the bladder, the walls of the vagina, and the cervix uteri. In answer to a question, M. Richet stated that he had tried the bromide of potassium in vain, but that the sulphuret of carbon seemed to have been of some temporary benefit. M. Guerin did not consider the bromide of potassium a merely inoffensive remedy, as it has given rise, in his hands, to nervous accidents, resembling epilepsy. He does not admit the exclusive importance generally attached to the clitoris as the organ of pleasure in women, the bulb of the vagina and the vaginal glands being of great importance in this point of view. M. Giraldès cited cases of children of from 3 to 6 years of age, who gave themselves up to excessive masturbation, even after so serious an operation as amputation of the thigh. M. Guersant has frequently employed circumcision in the case of boys, and has cured in this way, at all events for a time, a certain number of cases, the means operating to a certain extent by terrorism. In little girls, he either excises the glans of the clitoris, or touches that organ with the extremity of a probe heated to a white heat. M. Marjolin reprehends this as a very dangerous practice, while in most cases it proves quite useless. For his own part, he has little confidence in any local remedy, believing that the real seat of the evil is at least as often in the nervous centres as in the genital organs. M. Broca, in reply, observed that two descriptions of masturbation may be distinguished, the one cerebral or cerebro-spinal, depending upon affections of the nervous centres which may give rise to a perversion of the genetic instincts and propensities; the other, genital, having

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its source in the external organs of generation. The one is central, and the other peripheric; and the two species are not very easily distinguished from each other. A special condition of the genital organs may induce masturbation, as is the case in phimosis in young boys. The irritation or pruritus gives rise to rubbing, which may induce a voluptuous sensation, which, once experienced, is instinctively sought to be reproduced; and in little girls born with a large clitoris masturbation often occurs. Against the masturbation due to affections of the nervous centre we have no means of direct action; but when this has its seat in the genital organs, an operation, by its physical or its moral effect, may be of avail. The operation he has performed in this case preserves the sensitive parts concerned from contact; and if it does not succeed altogether in preventing masturbation, may much diminish the frequency with which it is resorted to, and thus also diminish the severity of the consequences.

The last number of Dr. Kürchenmeister's *Zeitschrift* contains a curious example of the manner in which quackery is officially coquetted with in Saxony. In its official section it records a decree, issued by the Minister of the Interior, as so much a matter of course as to call forth neither remark nor reprobation. One J. G. Unger, a peasant, of Zoblitz, near Lobau, having sought permission from the Ministry of the Interior to practise animal magnetism, and no objection thereto having been made by the official Medical authorities, such permission is accorded to him, providing he does not carry his procedures far enough to induce magnetic sleep, but confines himself to simple passes and imposing of hands upon the parts affected. Should Unger, however, during his manipulations, unintentionally induce magnetic sleep, he is at once to send for the district Medical officer, and leave all further dealing with the case in his hands. This functionary is also directed to keep a constant eye upon Unger, so as to restrain his activity within the limits indicated by this decree. A noble function, truly, for an educated Medical Practitioner!

The question of "spontaneous generation," which has been so long and keenly debated at the Academy of Sciences, is now put into a train for settlement as far as this is possible. M. Pasteur on the one hand, and M. Pouchet on the other, have agreed to repeat their experiments before a committee of the Academy, and to take its interpretation of the results as final. The following members of the Academy constitute the committee:—MM. Flourens, Dumas, Brongiart, Milne-Edwards, and Balard.

Alarmists having spread the report, that for some years past the population of France has been undergoing a physical degeneration, M. Legoyt, Chief of the Statistical Bureau, has just published a statement which contains a pretty decisive answer to the assertion. M. Legoyt attributes the origin of this opinion to observers having confined their attention to the period 1854-59, which was really a critical one for the French population. A devastating epidemic of cholera, an unusual series of deficient harvests, and two great wars, sufficiently explain, however, any temporary arrest of the development of the population which may then have been observed. Examining the mortality returns for the present century, M. Legoyt finds that the proportion has diminished from one death in 40·59 to one death in 42·30 inhabitants; and in the progress of such diminution France occupies the ninth rank of twenty-five countries. The mean duration of life has also notably increased since the commencement of the present century. Among other proofs of this is the larger number of young men born in given years who reach their twentieth year, as seen by the conscription returns. For the forty years 1820-59, there were 11,919,254 names inscribed, being the survivors of a total of 19,586,031 boys born twenty years before, *i.e.*, 60·85 survivors in 100 births. This proportion has oscillated in the eight subperiods of five years each into which the period may be subdivided; but the general conclusion is that, from 58·22 for 1820-24, it has risen to 61·59 for 1855-59. Another test of the condition of the population of the country is its degree of military aptitude, as measured by the number of exemptions on account of insufficient height and diseases or infirmities. The number of exemptions on account of defective height (the standard being 1·560 metre) has diminished from 875 in 10,008 conscripts in 1831-35, to 613 in 1856-60. Again, the exemptions on account of infirmities and diseases have progressively diminished from 3·055 in 10,000 for 1836-40, to 2·677 for 1856-60; and that notwithstanding that much more rigorous care has been exerted during the latter periods in excluding all men except those of sound constitutions. In part consequent upon this more rigorous examination, it results that the mortality of the army is not now greater than that of the civil population of the same ages. The great improvement which has taken place in this respect is, however, also greatly due to the improvement in the hygienic condition of the army. Finally, one other fact, which has been advanced in proof of increased physical degeneration, M. Legoyt is not able to reply to so satisfactorily, viz., the proportion of children born dead. Thus, while in 1851-55 there were but 3·91 per cent. in 100 births, these rose in 1856-60 to 4·30. It is true, that of late years the numbers have been more exactly recorded. Moreover, a similar increase is observable throughout Europe.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF NORWICH.

(Continued from page 71.)

ASYLUMS FOR THE INSANE.

There are three asylums for the insane in Norwich. One is entirely private; the second is a charity; and the third is for the parochial patients of unsound mind.

HEIGHAM HALL PRIVATE ASYLUM FOR THE INSANE.

This asylum, situated a little distance from the city, is capable of receiving sixty patients. The Hall is most commodious and commanding, and the grounds are very extensive and excellently arranged. I had the pleasure of visiting this asylum, and of being conducted through every part of it. The care that has been taken in securing the most modern sanitary improvements reflects the greatest credit on the managers, and with all these arrangements there is an artistic decoration which I have rarely seen equalled. The reports of the Commissioners in Lunacy have been unusually favourable to the Institution; and this is not to be wondered at, for all that is said is richly earned. J. F. Watson, Esq., is the Resident Medical Superintendent of Heigham Hall; Dr. Ranking, whose abstracts of the Medical Sciences adorn all our shelves, is the Visiting Physician; and W. P. Nichols, Esq., Senior Surgeon to the Norwich Hospital, is the Visiting Surgeon. I believe the Hall was transformed into an asylum by Mr. Nichols, and that the improvements to which I have referred have been carried out under his direction and on his suggestions.

THE BETHEL ASYLUM.

The institution known as the Bethel Asylum was founded in the year 1713 by Mrs. Mary Chapman. She, the daughter of one John Mann, Esq., once Mayor of Norwich, married the Rev. Samuel Chapman, of Thorpe. Her husband dying, she determined to raise an asylum for the insane, and at first she entrusted the management to a governor; but, hearing that the business of the institution was not progressing as it should, she went down one day, turned out her servants, and at once took the control into her own hands. A portrait of this lady hangs in the board-room of the asylum; it represents a lady with a fine Saxon face, and a gentleness and charity which both win and govern. She died in 1724. Her will, which was lent me for perusal, is a curious document. Originally, the number of patients admitted were very small; but at this time from seventy to eighty are housed and fed, and there is at least one attendant for every twenty patients. The income of the asylum amounts to about £400 per annum, and each patient adds to the sum by a payment of from two to six shillings weekly.

Some little time ago fault was found with the management

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of the asylum, the great objection being that there was not sufficient space in the airing-grounds. Situated as the asylum is, in the heart of the city, it is true, and necessarily true, that the grounds are small for the number of patients who move in them. It also struck me that the separate rooms of the inmates were unusually small, and that the corridors, owing to the old style of building, were low and cramped; but the greatest comfort prevailed throughout, and such objections as have been raised were not warranted by the actual facts.

Before leaving this Asylum, I would draw special attention to an important lesson taught here in relation to the dieting of the inmates of establishments of this kind. In our workhouses and in many of our public charities, the system is carried out of weighing every particle of food at every meal for every person. The act, in itself, is disgustingly offensive to the feelings of any right-minded man, who considers poverty no crime; nor is there any justification for it but one, that it is economical. The question then comes,—Is such justification founded on truth and experience, or is it the blurted hypothesis of some individual who had himself more determinate gastric machinery than heart? We have the question solved at the Norwich Bethel Asylum. There the inmates take what amount of food they like that is at table, and, in reason, what they like. Nothing is weighed. The result is, that an actual saving, instead of loss, is effected; and, while everything is good and plenteous, eleven shillings per head proves ample for support and maintenance through each week. The reason for the result named is very simple, and was explained to me practically by Mr. Nichols, the visiting Surgeon. In providing food for a large number of persons daily, it invariably happens that both tastes and appetites differ. Hence, if eighty people at a given meal receive each one pound of food of the same kind and quality, cut up previously, and dished and placed to hand, with "this or nothing" written upon it, scarcely one is really satisfied, and much is lost. Some hardly touch their food, but send it away picked over and rendered useless; others eat heartily, and want more; any way, eighty pounds of food are lost for good. But place eighty pounds of food before eighty persons, and feed all according as they ask, and one wishes for but a little, and another for plenty; one for more potatoes and less bread; another for more bread and less potatoes; one for fat meat, another for lean without fat, and so on, the grand result being, as is proved, that something always remains in the central dishes which no one has touched, which is not lost, and which, however small the saving per day, becomes in the year an important item. If I could reach, with a true argument like this, the ears of the so-called guardians of the poor of England, and they would act on the experience, what an improvement would soon be effected in the moral, not less than the physical, life of the workhouse inmate, by insult "pauper!" To see old men and old women toddling up to a hole in a partition, carrying plate or basin in both their hands, like an Egyptian slave going before the great king, to ask for so much measured victuals, is, to my mind, one of the most degrading spectacles that could be witnessed in any community, savage or "civilised." And all for what? Economy! We have seen about that. No, not for economy, but to add penance to poverty, and to transform charity into chastisement.

W. P. Nichols, Esq., is the Visiting Surgeon; C. M. Gibson, Esq., the Resident Surgeon; and Mr. E. D. Dodd, the Superintendent of the Bethel Asylum.

PAUPER LUNATIC ASYLUM.

The Pauper Lunatic Asylum of Norwich was originally a lazar-house. It is a dull, low, old-fashioned building, situated at some distance from the city, and having accommodation for about eighty patients, thirty-seven of whom, at this time, are men, and forty-five women. The diet scale is liberal, and the men and women dine together in one large room. Objections have also been made of late to this Asylum, to the effect that the grounds are not sufficiently large, and that out-door labour is not obtainable for the patients. The grounds, nevertheless, are moderately extensive; they contain conservatories, which have been built by the patients, and a variety of amusements of an active kind are freely encouraged. The patients, moreover, being mainly, on the male side, weavers and shoemakers, are not accustomed to out-door work, and would not be competent to perform much manual labour if it were there for them to do. The arrangements of the Asylum, which I carefully inspected, were as good as they could be made under the circumstances; there was no overcrowding, ventilation was free, and the inmates had a clean and healthy appearance. By this time the institution is transformed into a Borough Asylum. To make a perfect modern Asylum, this old place, which covers a great deal of ground unnecessarily, should come down, and be replaced by a new and improved building. G. W. Firth, Esq., is the visiting Surgeon.

OTHER INSTITUTIONS CHARITABLE AND PAROCHIAL—THE BOYS' HOME.

In addition to the above, Norwich is well provided with other charities and parochial institutions. *The Workhouse*, a very fine building on the Dereham-road, accommodates from 600 to 700 inmates. *The Doughty Hospital*, founded in 1687, receives twenty-eight men and sixteen women, who are allowed 5s. 6d. per week, with coals and clothing, and who are attended in sickness by Mr. Cadge. *The Infirmary for the Indigent Blind* is a Hospital for the aged blind, and a school for the instruction of blind children. There is one other institution to which I would direct special notice, because it develops a new principle—I refer to a house situated in St. Faith's-lane, called the *Boys' Home*. This charity was organised in 1846. It is parochial in character, but in principle there is nothing elsewhere like it in England. It receives in the course of the year some sixty boys, who come from the Workhouse, and who are divided into two classes, the *school* and the *home* class.. Boys nine years old are first placed in the school class; when they are old enough they are allowed to go out and work; some go as clerks, others as handicrafts, and others as labourers or messengers. While thus working and learning the world, they still find for a long time a residence at the Home, and are thus kept during the most critical period of their lives under good and gentle discipline. The wages earned by the boys go towards their maintenance, but they are allowed threepence a-week for themselves. The working boys average sixteen a-year, and their earnings in eight years have brought in no less a sum than £969 sterling. The diet is on the Poor-law scale, and is, therefore, insufficient as a whole; but for the working boys it allows animal food five days in the week. Mr. Hutchison, the able Surgeon to this establishment, spoke to me enthusiastically on the great good that was effected by this simple measure. Every domestic comfort was supplied in the house. I found the wards large, clean, and airy; the bedding and clothing were unexceptionable, there were facilities for the bath, and the schoolroom was of good size. Mr. Hutchison supplied me with the facts relating to the health of these boys. By strict attention to cleanliness epidemics had been kept away nearly altogether, and only four deaths had occurred in nine years. When disease appeared, it was usually in the forms of struma and anæmia.

I hope those members of the Profession who act as Surgeons to the workhouses of this kingdom, and who are always ready to assist the poor, socially not less than professionally, will not forget the Boys' Home at Norwich. They may be the means in their districts of forming similar homes, and of conferring immense benefits on that almost outcast youthful community which the workhouse pours into the streets, homeless and hopeless.

THE CITY GAOL.

The Gaol at Norwich receives about eighty-eight prisoners yearly. The average of sickness is 2·50 daily. Such cases of disease as occur are low fever; but the mortality is exceedingly small. There is a very indifferent infirmary, which is now only occupied by female prisoners; the wards are dark and low. Once both males and females were admitted during sickness, but at last it was found that in one instance the patients succeeded in talking to each other by means of a chimney common to a male and female ward. Since then, the males have been prohibited the infirmary, and, when sick, have been treated in small cells within the gaol, which cells are utterly unfitted for such a purpose. They are scarcely better than large rabbit-hutches, with little light and less air. This state of matters is fortunately about to be remedied, by the construction of appropriate accommodation for the sick. The prisoners are kept well occupied; those on the treadwheel are allowed five minutes' rest at short intervals, and the wheel is regulated. Others are occupied in hair-picking, mat-making, carpenters' work, shoe-making, clog-making, and other useful arts. To the credit of the Norwich authorities, torture has not been practised in the gaol for seven years; neither has any human being been executed for a long period. The last execution took place in 1830.

THE SANITARY CONDITION OF NORWICH.

Apart from the Hospital, the sanitary condition of Norwich is not satisfactory, in many points. Great improvements have,

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however, been made of late by the authorities, and what remains to be done is, to a large extent, in the matter of private hygiene.

Ventilation.—Ventilation is defective both in the public and private dwellings; and, in fact, it seems to be little thought of. The construction of the houses, especially in the old parts of the town, is against any effective system, and some excuse may be made for the occupants of such houses. But in public places neglect is less pardonable. What, indeed, can be said in extenuation of the condition of things which I am about faithfully to describe?

At two o'clock on Saturday, the 19th of December of last year, I went into the cathedral, by the western door. On entering the magnificent building, I was conscious of a cloud of vapour, somewhat dense and peculiar. Proceeding towards the organ, for the purpose of looking into the choir, I found myself giddy and nauseated, precisely as from breathing a narcotic gas. I soon returned, and found the attendant, a woman, speaking to Mr. Nichols, near the door; she was very pale, and also suffering from the air of the place, which always was so bad, she said, after lighting the coke fires in the side aisle on the right. On inspecting these, I found that warming was effected by means of great furnaces—I can call them nothing else—holding smouldering coke. These furnaces were open at the side, but at the top they were covered by a sort of huge funnel, having one ridiculous escape pipe, probably of two inches in diameter. Of course, the air of the cathedral was charged with carbonic acid, and, probably, with carbonic oxide; and but for the size of the building, it would be fatally poisonous when fires, so laid, are burning. If the worthy Dean and Chapter would read a lesson from Dr. John Davy's admirable description of the case of coke-poisoning in the church at Ambleside, they would, perhaps, see the propriety of attending to the physical, not less than the spiritual, welfare of their congregations.

Water Supply.—The water supply is by pumps, and by the reservoirs of the Norwich Waterworks Company. That derived from the pumps is of doubtful character for consumption, as will be seen by the following analysis made by Mr. Sutton:—

Partial Analyses of the Waters taken from the various Public Pumps in the City of Norwich during the Autumn of 1861, *and reported to the Board of Health.*

	Grains per imperial gallon. Inorganic.	Organic.	Total.
Parish of St. Michael at Plea .	52·24	9·01	= 61·25
,, St. Peter's, Hungate .	61·99	9·88	= 71·87
,, St. George's, Tombland .	69·16	8·76	= 77·92
,, St Peter's, Mancroft .	61·59	5·96	= 77·55
,, St. John's, Maddermarket	37·54	6·91	= 44·45
,, St. Lawrence (deep well)	37·03	2·98	= 40·01
,, St. Augustine's . .	39·47	4·98	= 44·45
,, St. John's, Timberhill .	68·66	10·37	= 79·03
,, St. Peter, Mountergate .	71·25	6·79	= 78·04

All the above-mentioned pumps are situated near churchyards, and the bulk of the waters contain considerable quantities both of ammonia and nitrates.

The supply from the waterworks is derived from the Wensum, at a distance of about a mile from the town. The works were reconstructed, and, indeed, I may say constructed, in 1850. The following analysis of the company's water was also made by Mr. Sutton; it shows a fair quality:—

Complete Analysis of the Water supplied to the City by the Norwich Water Company. Sample drawn October 3, 1861.

	Grs. per imperial gal.
Carbonates of lime and magnesia .	13·71
Sulphate of lime	2·36
Chlorides of sodium and potassium .	2·47
Oxides of iron, alumina, and silica .	0·59
Organic matter	1·86
Total solid matter	20·99

Drainage.—The drainage of Norwich is now very complete; the river is the recipient of the sewage, but the sewage is as yet unutilised. There is little surface drainage, and the air generally is free from effluvia from drains. I observed, however, that the open refuse heap was still a prominent object in the lower parts of the city, but this nuisance is less than it was formerly. There are no manufactures that are specially injurious to the health of the city.

Climate and Meteorology.—Norwich bears the character of being both cold and damp. The statement is scarcely just. The city stands thirty feet above the sea level, and in latitude 52·37° N. A well-known meteorologist, Mr. Brown, has kept faithful records of the weather, which have been forwarded to, and registered by Mr. Glaisher. I have looked over the whole of the results as epitomised by Mr. Glaisher, and the following, representing the year 1856, seems to be a fair mean:

Barometer—Mean monthly range of readings . .	1·091
Thermometer—Mean, monthly, of highest readings .	66·0
,, ,, of lowest readings .	30·0
Air, mean temperature of the	48·7
Dew point do. do.	44·1
Humidity, mean degree of	84·0
Ozone, mean amount of	1·6
Cloud do. do.	6·8
Rain, number of days of	154·0
,, amount collected	25·4

Easterly winds are prevalent, but I have no daily record of prevailing winds.

Dwellings of the Poor.—The dwellings of the poorer classes in and about Norwich are revolting. In October last, the proprietors of the *Norfolk News*, one of the most ably-conducted of the provincial papers, opened, at great trouble and cost, a commission of inquiry on the homes of the poor. I must not enter into details, which would be but a repetition of the narrations in Godwin's late work, "Another Blow for Life," but I must mention a report made by Mr. Samuel Clarke, the energetic Inspector of Nuisances for the City. Amongst many examples given by Mr. Clarke is one in which a man, his wife, his son (21), his eldest daughter (29), and another daughter (15), all slept in one close room 12 ft. by 7 ft. 9 in. The woman was ill with typhus, so was the son. The son died on a Sunday, and was kept in the bedroom until the next Tuesday, the father and mother sleeping there all the time. This is even a scant illustration. The whole state of things is so bad that, in a foot note to an article on October 31, the Editor of the *Norfolk News* almost apologises for his narrative on the grounds that he must justify the public in believing that he is dealing with matters of fact, and not of imagination or romance.

Diet of the People.—If the dwellings of the poor of Norwich are very, very bad, the diet is even worse. The Norfolk dumpling—flour and water—is the prevailing dish. Solid animal food and soups are sparingly used, and even bacon and cheese are consumed in smaller quantities than in most of the other rural districts of England. Norfolk dumpling, weak tea, potatoes, heavy bread, and an occasional spare plate of animal food—and that more frequently salted than fresh—make up the daily meal of the Norfolk labourer. It is a sad lot. What wonder that vice prevails, and its twin sister, disease? What wonder that the Physicians call out for supporting measures so early in the course of disease?

Epidemics.—We have seen that in its early history the city of Norwich was frequently subjected to epidemic plagues, and until a recent date the communicable disorders have run their course too often triumphantly. But since the recent improvements in drainage and water supply, these diseases have declined to a considerable extent. In the year 1819, small-pox invaded the city, and carried off no less than 530 persons. The history of this epidemic was written with great power by the late Mr. Crosse. In 1861 there was another severe epidemic; and Mr. Samuel Clarke, the sanitary inspector, reports to me that no less than 3000 cases of the disease occurred. Respecting the other epidemics, Mr. Clarke states—"We are rarely now visited with any epidemic of scarlet fever or of typhus, although we were noted for these diseases in Crook's-place and Peafield before the drainage was laid down. Again, in Magpie-road, St. Augustine, we had typhus periodically until the drainage was completed, when the disease vanished. This was eight years ago." Cholera visited Norwich in 1849 and 1854. In 1849 it destroyed 38 persons; in 1854 it destroyed 193 persons. In the same years, respectively, diarrhœa carried off 99 and 184. These figures in 1854 are very high. In the eastern counties there was no town that suffered so severely in that year.

Mortality in Norwich.—The mortality of Norwich is above the average, the deaths of children being very numerous. In the year 1841 the population numbered 61,846, in 1851 it reached 68,195, and in 1861 it reached 74,865. In the ten years ending December, 1851, the mortality from all causes was 15,865. Through the kindness of Mr. Clarke, I am enabled to give the details of the quarterly and yearly mortality from 1837 to 1861:

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Deaths from January, 1850, to September 30, 1861.

Years.	Totals.	Years.	Totals.	Years.	Totals.	Years.	Totals.
1850	496	1853	465	1856	340	1859	424
	512		435		345		329
	571		368		342		445
	506		380		376		447
	—2085		—1648		—1403		—1645
1851	413	1854	465	1857	403	1860	473
	374		406		338		640
	391		640		533		365
	418		482		704		498
	—1596		—1993		—1978		—1976
1852	478	1855	611	1858	591	1861	454
	445		571		458		518
	408		362		457		530
	383		401		559		485
	—1714		—1945		—2065		—1987

Number of Deaths from July 1, 1837, to December 31, 1849.

Years.	Totals.	Years.	Totals.	Years.	Totals.	Years.	Totals.
1837							
Michs.	308	1841	373	1844	425	1847	379
Xmas.	262		360		343		356
	—579		291		306		241
1838	353		336		466		298
	353		—1360		—1540		—1274
	337						
	329	1842	388	1845	711	1848	509
	—1372		391		406		313
1839	561		384		308		306
	620		417		305		311
	325		—1580		—1730		—1439
	365						
	—1871	1843	379	1846	326	1849	384
1840	410		340		435		372
	442		302		454		437
	474		278		361		457
	425		—1299		—1576		—1650
	—1751						

I had partly analysed, with a view to publication, the deaths of infants as compared with adults, and of males as compared with females. It is, however, impossible for me to find space for the results. I must, therefore, content myself with taking an example from one year presenting a fair average, when no epidemic specially prevails. The year 1856, the meteorology of which has already been given, is the best year I can select:

Males and Females.

Total births of males, 1146; deaths, 691. Total births of females, 1113; deaths, 713.

Deaths at Different Ages.

Males.—Under 1 year, 207; under 5 years, 279; at 15 years, 35; at 25 years, 40; at 35 years, 38; at 55 years, 77; at 65 years, 67; at 75 years, 52; and at 85 years, 13.

Females.—Under 1 year, 148; under 5 years, 219; at 15 years, 42; at 25 years, 57; at 35 years, 49; at 45 years, 58; at 55 years, 56; at 65 years, 88; at 75 years, 86; at 85 years, 20.

Causes of Death.—The causes of death in Norwich have been classified with great care for thirteen diseases, for some years past, and have been epitomised in the yearly returns of the Registrar-General, but sufficient care is not paid, I fear, to the minutiæ of diseases to render an account of every fatal disease possible. The following abstract is, nevertheless, interesting: The rate of mortality, annually, to 1100 persons living is 24·25. The disease highest in the list of fatal causes is phthisis pulmonalis; this disease carries off 11·76 per cent. of all who die; next to it come diseases of the respiratory organs,—these destroy 11·70 per cent; diarrhœa takes 6·41 per cent.; typhus, 4·34 per cent.; violent deaths stand as 3·20 per cent.; scarlet fever takes 1·98 per cent; pertussis takes 1·14 per cent. Following in proportions of less than 0·49 per cent. come erysipelas, small-pox, measles, cholera, and puerperal fever. The malignant diseases have not been classified for accurate computation.

ETIOLOGY OF NORWICH.

The causes of the most fatal diseases of Norwich are obvious: bad ventilation, indifferent food, confinement indoors, and uncleanliness. Phthisis, struma, joint disease, anæmia, cancer, and even calculus—these run together, and, when read deeply, are seen to be of common local origin. All our great cities and towns, in fact, are grand experimental fields for the production of disease, and Norwich stands very high in the scale of disease-making communities. Much attention has been paid to the cause of the frequency of calculus. Dr. Yelloly was most particular in his investigations on this subject He showed, from the practice of Mr. Martineau, one of the most eminent of lithotomists, that operations for calculus was required in *one* of the better classes of patients to *eleven* of the poor. He also showed that the calculus tendency was nearly double in the city to the county at large, and that the proportion of males to females was *twenty* to *one*. Our calculations to the present date are—males, 869; females, 41. We have thus evidently three disposing influences, viz., poverty, city life, and male sex. In respect to direct causes, there have been assigned hereditary tendency, the farinaceous diet, and the character of the water supplied. The first of these direct causes is scarcely tenable, because the tendency from the parent should pass alike to male and female child. The second cause is also not tenable, as sufficient to account for the phenomenon altogether, because the women live on the same kind of farinaceous diet as the men; and the third cause is out of the question entirely, because the women have the same water to drink as the men, and there is nothing special in the water to produce disease, as Mr. Sutton's analyses will show. There is, therefore, some other explanation of the fact; and the best explanation I have heard is one by Mr. Williams, which is, that exposure to cold and rheumatic disease, not necessarily acute, but chronic and diathetical, is the main cause. This is probably sustained by peculiarities of diet; but it is clear that there must have existed, before the actual formation of calculus, a febrile condition, in which the formation of lithates and phosphates in excess has been the leading fact. The relapses of calculus are 44 in 920 persons.

MEDICAL LIBRARY OF NORWICH.

There is a Medical library in Norwich, the rooms of which, two in number, are in the Literary Institute. The library is small, and the books are not up to the requirements of the time. There are some good classical works, and, indeed, the nucleus of an excellent library. Books circulate amongst the members. The annual subscription to the library is £1 1s.

MEDICAL SOCIETIES OF NORWICH.

There are two Medical societies of Norwich, the "Pathological" and the "Medical."

The "Pathological" meets in the museum of the Hospital every other month, for the reading and discussion of papers and the exhibition of specimens. Mr. Crosse is the honorary secretary.

The "Medical" is a society recently organised. The members meet at each other's houses for discussion and reading of papers. Dr. Copeman is the honorary secretary.

The societies named have not as yet published any volume of transactions. It would be a great point for Medical science if they did, for not only is Norwich a fine field for Medical observation and research, but the Practitioners there, at this moment, have but to say that they *will* use their advantages, to use them with singular success. "The Medical Transactions of Norwich" for the year 1865. That is the book wanted.

THE MEDICAL BIOGRAPHY OF NORWICH.

I cannot conclude this notice of the Medical history of Norwich more appropriately than by giving a brief summary of the lives of the eminent Medical men who have in past times flourished in this city. I will take them alphabetically.

Sir Thomas Browne, M.D., Oxon., the well-known author of the "Religio Medici," resided and practised in Norwich from the year 1636 to his death, on October 19, 1682. Sir Thomas had a very large practice, although, as we all know, he held his own opinions, and was subjected to much literary criticism. In 1641 he married a widow lady of good Norfolk family, named Mrs. Mileham. The marriage, says one of his biographers, brought down upon him great raillery, inasmuch as he had shortly before written "that we ought to multiply our species like trees, who by themselves throw out young suckers;" and "that the whole world was made for man, but only a twelfth part of a man for woman," and "that man is the whole world, but woman only the rib, or twelfth part of a man." Sir Thomas was knighted by Charles the Second, in 1671; he was also the author of a book entitled "Pseudo Doxiæ Epidemiæ; or, a Treatise on Vulgar Errors;" of another work called "Hydriotaphia; or, Urn

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Burial;" and of the "Garden of Cyrus." The true character of Sir Thomas Browne has yet to be written. He was either one of the profoundest satirists we have had, or he was a learned twaddler; but all agree that he was an amiable and benevolent man. He was buried in the church of St. Peter Mancroft. Recently, his tomb has been opened, and his skull, which was in good preservation, has been removed to the museum of the Norwich Hospital, where, as I have already said, it still remains. On his coffin-plate was a curious and almost enigmatical Latin inscription, a rubbing of which was obtained by Mr. Firth. I am sure I am not asking too much of my friend in requesting him to send to the column of 'Notes and Queries" of the *Medical Times and Gazette* his copy, and his very ingenious translation of this inscription.

Dr. Edward Browne, M.D., F.R.S.—Dr. Edward Browne was the son of Sir Thomas, and was born at Norwich, probably in the close of the year 1642. He was educated at the Norwich Free school, and thence went to Cambridge, and afterwards to Oxford, where he graduated in Medicine in 1667. It is not certain that he ever practised for any length of time in Norwich. He was fond of travel, and in 1673 published an account of his travels in Hungary, Austria, Macedonia, and other countries and provinces. He afterwards practised in London, succeeded Sir John Micklethwait as Physician to St. Bartholomew's, was made a Fellow of the Royal Society, was some time Physician to Charles II., and was summoned to a consultation during one of the illnesses of William III. In 1705 he was made President of the Royal College of Physicians. He was the friend of Dryden, the poet, and wrote the life of Themistocles for the English translation of "Plutarch." He also wrote the life of Sartorius.

Dr. John Caius, M.D.—Dr. Caius, or, in correct English, John Kaye, known as the founder of Caius College, Cambridge, and as the Caius of the "Merry Wives of Windsor" was born at Norwich in 1510, and was educated at the Free School. He afterwards went to Gonville Hall, Cambridge, and became a Fellow of it. Later in life he practised in London, and was made Physician to Edward VI. On the accession of Mary, despite differences in politics and religion, he was appointed "Physician to the Queen," and on the death of that monarch he was retained by Elizabeth. As he rose into wealth and fame, he was specially anxious to benefit his old college, Gonville Hall; he therefore refounded it, and endowed it liberally, so that its name was changed to Caius College. He was the author of several learned works—"On the English Breed of Dogs," "On Rare Plants and Animals," "On the Hot Springs of England," and "De Medendi Methodo." But he is known especially by his work entitled "A Boke or Counseill against the Sweat" (1552), from which Hecker has borrowed largely, and on which Dr. Francis C. Webb has mainly founded his historical essay "On the Sweating Sickness in England." Dr. Caius died at Cambridge in July, 1573.

Dr. John Greene Crosse, M.D., F.R.S., one of the most eminent and most estimable Surgeons of Norwich, was born at Finsborough, in Suffolk, on the 6th of September, 1790. At twelve years of age he went to a grammar-school at Stowmarket; and on the 18th of August, 1806, he began to study Medicine as a pupil of Mr. Bayly, of Stowmarket, having chosen that profession instead of the Law, for which he was intended. Dr. Copeman has ably collated some of the parts of a diary kept by Mr. Crosse from very early life, and in which there are passages which would do honour to Franklin or Defoe. In 1811 Mr. Crosse reached London, and became the pupil of Sir Charles Bell; and in 1813 he was dresser to Sir Everard Home, at St. George's. Leaving London in October, 1813, he crossed to Dublin, and became Demonstrator of Anatomy under Dr. Macartney; and in December, 1814, after a brief visit to Suffolk, during which he was introduced to the late Dr. Rigby, of Norwich, he went to Paris, and stayed several months. Returning to London, he published his "Sketches of the Medical Schools of Paris," and took a house in St. Giles', where he remained some years. On the nineteenth day of the year 1823 he was elected Assistant-Surgeon of the Norfolk and Norwich Hospital; but the election cost him a serious illness, to remove which he took a trip to Holland. He had not long to wait in Norwich for practice, for his practical skill was soon known everywhere, and appreciated. In 1826 he was made full Surgeon to the Hospital, on the death of Mr. Bond. In 1829 he commenced to give courses of clinical lectures on Surgery at the Hospital, and he took an active part in the formation of the present Norwich Hospital Museum. As a writer, as a teacher, as a Practitioner, Mr. Crosse excelled equally. I have risen from the perusal of his works with a sorrow, not easily expressed, that I had not read them more carefully before. The style is most simple, yet perfect; the argument clear; the narrative true, easy, and natural. His chief works are, "A History of the Variolous Epidemic of Norwich," "Memoirs of the Life of the late Dr. Rigby," "A Memoir of the Life of Philip Martineau," and a Jacksonian Prize Essay on "The Formation, Constituents, and Extraction of the Urinary Calculus." Mr. Crosse was elected F.R.S. in 1836; M.D. of Heidelberg (honorary) in 1835; and M.D. St. Andrews (honorary) in 1845. He was also a Fellow of the College of Surgeons, and a member of numerous learned societies at home and abroad. He died at the age of 60, of disease of the vessels of the brain, on Saturday, June 8, 1850, and was buried in the cloisters of the old Cathedral on Friday, June 14, amidst general sorrow. His son, the present Mr. Crosse, of Norwich, follows him, and not less worthily.

William Dalrymple, Surgeon, was born in Norwich, in 1772, and was educated at the grammar-school at Aylsham, and at the free school of his native city. He studied at Guy's and St. Thomas's Hospital, under Cline and Astley Cooper. He commenced practice in Norwich in 1793, and in 1812 was elected Assistant-Surgeon to the Norwich Hospital. In 1814 he was elected full Surgeon, and filled the post for the period of twenty-five years. He is not celebrated for any written works, but his learning, modesty, and amiability, won for him the affections of all his friends and patients. He was the founder of the Hospital Museum, to which he also largely contributed; and he was the father of the learned oculist and anatomist, John Dalrymple, whose memory is still retained in the London Professional world. Mr. Dalrymple in 1839 resigned his Surgeoncy of the Norwich Hospital, and in 1844 left practice altogether. He died in London, on December 5, 1848.

William Donne, Surgeon, deserves notice as an eminent lithotomist, and as one of the first Surgeons to the Norwich Hospital. He was, perhaps, the largest contributor in his time to the cabinet of urinary calculi, to which reference has before been made. He died in 1805.

Benjamin Gooch, Surgeon.—Gooch, who may be considered the founder of the Norwich Hospital, was a Surgeon living at Shottisham, near by Norwich. He is known as a writer by his two admirable volumes of "Cases and Practical Remarks on Surgery." They are the purest and most classical of the contributions to Surgical literature of their day. In style, though brief and abrupt, Gooch is superior to Pott, and he gives suggestions which are still of great value. A far-seeing man, he looked beyond the surface of things, and projected his thoughts onwards many ages. He lived to see the Norwich Hospital completed, and, having raised that monument to his own memory, sank quietly to his rest in the little village where he had been so long a resident. His death occurred in 1773.

Dr. Richard Lubbock, M.D., was born in Norwich, in 1759, and was educated at the free school. He commenced his Medical life under Dr. Rigby, and graduated in Edinburgh. He was one of the first pupils of the Norwich Hospital, and was Physician to it from the year 1790 to 1808. He died in 1808, and was considered one of the most accomplished of the Norwich Esculapians. He placed on record, in a short essay, the history of a case of catalepsy, and published one or two minor papers.

Philip Meadows Martineau, Surgeon, son of David Martineau, a Surgeon, was born in Norwich, on November 9, 1752. He was educated partly at Norwich and partly at Macclesfield. In 1769 he went to Mr. Webster, Surgeon, of Dereham, as pupil, and in 1770 to Mr. Donne, of Norwich; thence to Edinburgh in 1773, where he studied under Cullen and Horne, and in 1775 passed to London for a turn there of twelve months. After a visit to Geneva he returned to Norwich, and entered into a partnership with Mr. Donne, which lasted ten years. In 1777 Mr. Martineau was elected Assistant-Surgeon to the Norwich Hospital; in 1784 he founded the Public Library of the city, and in 1793 he was elected the Principal Surgeon to the Hospital. Having built a beautiful mansion at Bracondale, Mr. Martineau continued to practise with great success and position, and in 1824 he took an active part in inaugurating the now famous Norwich Musical Festival; he took an active part also as a Unitarian in the celebration of the repeal of the Test and Corporation Act. Mr. Martineau was considered during his life, and still is considered, as one of the best operating Surgeons who has lived and practised in Norwich. His literary contributions

are but two in number; the one is on an "Extraordinary Case of Dropsy of the Ovarium," submitted by John Hunter to the Royal Society in 1784; and the other is the famous paper on "Lithotomy," published in the eleventh volume of the "Transactions of the Medico-Chirurgical Society of London." In this paper are detailed the results of eighty-four operations for stone by the lateral method, in which there were only *two* deaths. After filling the office of Surgeon to his Hospital for half a century, Mr. Martineau resigned in November, 1828, and was elected Honorary Consulting Surgeon. He died on the evening of the 1st of January, 1829, and was buried in Thorpe Church, hard by Norwich.

Dr. John Murray, M.D., a philanthropist and Physician, was born in the year 1720, at Unthank, Eskdale, and settled in Norwich in 1768. He is recollected as the founder of the Scots Society, for the assistance of such of the Scottish in Norwich who could claim no parochial relief. He was also a staunch slave abolitionist. He died on September 26, 1792.

Dr. Edward Rigby, M.D., one of the great Medical celebrities at Norwich, was born on December 9, 1747, at Chowbent. He was placed early in life under the tuition of the immortal Priestly, and remained under him at Warrington until 1762, when he was apprenticed to Mr. David Martineau, Surgeon, of Norwich. He studied in London under the Brothers Hunter, and was admitted a member of the Corporation of Surgeons on May 4, 1769. In the same year he married, and commenced practice in Norwich, and soon rose to the first place. By the year 1789, he was sufficiently rich to take his yoke easily, and he, therefore, visited the Continent, was in Paris during the Revolution, and saw the head of the Governor of the Bastile carried on a pole. On his return to Norwich, he took an active part in social and political matters, and introduced amongst the weavers the Lancashire improvement known as the flying shuttle. In 1803, he married a second time, and had twelve children by this union. Four of these children—three of them boys and one a girl—were born at one birth; the membranes in which they were enclosed is still in the museum of the Norwich Hospital. The late Dr. Rigby, of London, was one of the children of this marriage. In connection with the Hospital itself, Dr. Rigby was Assistant-Surgeon for nineteen years, Surgeon twenty-four years, and Physician seven years, in all fifty years. He made many contributions to Medical and general Literature, viz., "An Essay on Peruvian Bark in the Cure of Intermittents," "On the Theory of Animal Heat," "Chemical Observations on Sugar," "Tracts on the Management of the Poor," "The Cultivation of Mangel Wurzel," "Framingham and its Agriculture, with the Economy of a Small Farm," and others. But the Professional work on which his fame rests is his "Essay on the Uterine Hæmorrhage which precedes the Delivery of the Fœtus," in which such hæmorrhage is divided into the accidental and unavoidable, and in which the true principles of treatment are laid down with a precision which leaves nothing to be desired. Dr. Rigby was a member of the Medical Society of London, and of the Linnean; an Alderman for Norwich, Sheriff in 1803, and Mayor in 1805. He was also one of the founders of the Norfolk Benevolent Society for the relief of the widows and orphans of Medical men, of which he was treasurer until his death. He died on the 27th of October, 1821, his friend and admirer, Mr. Crosse, pronouncing on him, on December 13, a eulogy which in itself is one of the most interesting and warm-hearted pages in British biography.

Dr. Frank Sayers, M.D., an accomplished scholar, and a schoolfellow of Lord Nelson, was also a Norwich celebrity in his time, so much so, that one of his biographers speaks of him as "the first gentleman of Norwich." He was the author of various poems and works on antiquarian and learned subjects. He was born in London, in March, 1793, and died in Norwich on August 16, 1817.

Sir James Edward Smith, M.D., F.R.S., the eminent botanist, was a Norwich man. He was born in the city on December 2, 1759, and died on March 17, 1828. He did not pursue the active duties of practice, but, as President of the Linnean Society, the friend of Sir Humphrey Davy, and the author of the "English Flora," he ranks amongst the first, in his chosen walk of scientific life.

Sir Benjamin Wrench was a Physician who practised in Norwich for sixty years, viz., from 1687 to 1747. A painting of him is still retained. He was of the school of Mead, one of the old princes of physic, who held by his prerogatives, and made his position, on a small scale, ministerial. He was accustomed to drive into the city in a chariot and four, with outriders and all else; and if he did not cure the more on this account, a great many more came to him to be cured. He died in 1747.

Dr. John Yelloly, M.D., F.R.S., is the last name on my list of Norwich Medical worthies. A long list, which began with a good name, and ends with one as good. I have been able to glean but few facts of the life of Yelloly; but he practised in Norwich from 1821 to 1833, and he is known for his admirable contribution to the *Philosophical Transactions*, "On the Tendency to Calculous Diseases, and on the Concretions to which these Diseases give rise." It remains yet for some Practitioner in Norfolk to take up the mantle of this Physician, and, beginning where he ended, to bring the problem he so carefully investigated to a satisfactory solution.

And now I close this first Medical History of an English city. It was but for me to write as I found, and that is done. If the facts shall stand for the manner, and the intentions for the deed,—enough: I shall rest and be thankful.

REVIEWS.

On Rupture: Inguinal, Crural, and Umbilical. With New Methods of effecting a Radical and Permanent Cure. With Illustrations. By JOHN WOOD, F.R.C.S. Eng., Exam., Demonstrator of Anatomy at King's College, Assistant-Surgeon King's College Hospital, &c., &c. Pp. 326. London: John W. Davies, 54, Princes-street. 1863.

RUPTURE has probably been one of the most important Surgical subjects since men were doomed to earn their bread by the sweat of the brow. In the earlier writers we constantly find allusions to it, and directions for its cure. They do not seem to have ventured, as a rule, on operating after the gut was strangulated; they merely endeavoured by methods more or less barbarous to prevent such an occurrence taking place. From Celsus to Heister we read of boys being castrated. "In such a bad state was Physic and Surgery at that time (1700), that not a person in so considerable a city as Frankfort knew how to cure an enterocele without the loss of the testicle." This proceeding was not limited to boys, as we find, in 1712, a tailor operated upon near Attdorf, who died from the combined effects of the operation, which deprived him of one testicle, and brandy, which was forced upon him by the itinerant quack who performed it. The history of this proceeding has been so thoroughly worked out of late, that it is needless to occupy space by describing the ligature of the sac, the royal stitch, the punctum aureum, and other methods of compressing the neck of the sac; the caustics, both actual and chemical; setons of the most varied material; or how Belmas operated on the Parisian bitches with his bags of gold-beaters' leaf. Then we come to the pluggers, Signoroni, Gerdy, and others. If any one wishes to follow out the subject, is it not written in the chronicles of our Profession?—and in Houston especially he will find quaint descriptions.

One who commenced his studies twelve or fourteen years ago merely heard of operations for the radical cure of hernia as historical facts; and he would as soon have expected to see his pastors and masters tattoo a patient, as operate when there was no strangulation. He was forced to learn with painful minuteness the "anatomy of the parts of hernia," but he learned them as weapons of defence from certain demons who came forth by night in Lincoln's-inn-fields, *retiarii* whom he knew some day might catch him in the cribriform fascia. Then, after all, he was informed this knowledge is of no use in operating—you must cut through these layers, without heeding their names or number, and never operate as a rule, except where there is absolute necessity. If he asked why, the answer was, "Wounding the peritoneum under any circumstances is generally fatal." But a few years ago matters took a different turn. Wurtzer, of Bonn; Rothemund, in Munich; Sigmund, in Vienna, and others, revived the old subject of radical cure; but in this country we undoubtedly owe to the active and practical mind of Mr. Spencer Wells that the attention of English Surgeons once more was directed to it; they were encouraged by his success, and many workers entered this old Roman camp, and ploughed up with profit the buried relics of the past.

Among these was the *punctum aureum*, which had for its object narrowing the passage for the escape of the gut, but not entirely preventing the passage of blood down the cord. It is obvious that this could hardly be done except by acci-

dent very often, but it suggested the operation now called, and justly so, Wood's. He starts with this proposition—"To effect a radical cure of inguinal hernia in a satisfactory manner it is necessary to adopt a plan to shut up *permanently* the inguinal openings and canal, by drawing together and producing adhesion of its tendinous walls as far up as the internal opening. If we succeed in doing so much as to restore the valve-like action of its oblique sides, we shall *restore* the part to its normal power of resistance to dilatation and hernial protrusion."—Cap. v., p. 88.

"To ensure success, complete union must be established along the *whole* length of the canal." . . . . "Simple closure of the pillars of the superficial ring will not afford this requisite amount of resistance." "The conjoined tendon may be taken up by a needle without difficulty, if the forefinger be first passed along the canal, and placed fairly behind the lower border of the internal oblique muscle, and then made to hook it forward towards the surface, so as to raise the tendon to which it is attached in salient relief."—P. 89.

We presume that this manœuvre is executed when the patient is deeply anæsthetised, as but few are so flaccid as to let their internal oblique be hooked up into salient relief. But Mr. Wood thinks it can be accomplished in most hernial cases. Let us now consider this operation.

The instruments are—a needle in a handle, much curved near the shaft, less so near the point.—P. 95. There is also a needle provided with a sliding guard for those unaccustomed to points and edges;—(when *will* these "Surgery made easy" things find rest in the rag and bottle shops?) A "knife like a tenotomy knife . . . for the scrotal incision, and separating the fascia from the skin." A "pad of boxwood, glass, or porcelain, long and broad enough to cover the hernial canal . . . with a hole or groove about the middle to fasten the threads upon" —strong thread or wire.

Mr. Wood gives a clear and full description of his operation, which may be summed up shortly, thus:—A cut is made an inch and a-half below the spine of the pubis, long enough to admit the tip of the finger and the needle; the knife is carried round between skin and fascia; the loose connections of the scrotal fascia are then detached with the handle. The detached fascia is pushed by the forefinger into the inguinal canal from as low a point as possible, and pushed up as high as possible. Then the forefinger, hooked forwards, will raise the lower border of the internal oblique. The needle, unthreaded and well oiled, is now pushed along the thumb side of the finger through the tendon at its most salient part, so as to take up a considerable portion of it; then through the internal pillar of the superficial ring obliquely upwards and inwards; then one end of the thread is connected with the needle, and the latter withdrawn, leaving the other end in the puncture. The needle is then passed with the ligature through Poupart's ligament. When its point is seen to raise the skin, the latter is drawn outwards until the former can be pushed a second time through the puncture before made. A loop of thread is now left in the puncture, and the needle withdrawn, carrying the free end. The needle is then passed through the triangular aponeurosis, and again, the third time, through the first aperture. The wires or threads are attached to the compress, pledgets of dry lint applied, and a spica bandage. These were removed from the third or fourth day to the seventh. The operation was generally followed by serous and, occasionally, purulent discharge. Mr. Wood has modified his operation in several ways, and especially we would draw attention to, at p. 135, his operation by pins—a most ingenious form of *trussing* in culinary and chirurgical senses.

But how is this a permanent cure?—does it kill patients? Let our author answer at p. 161. The average duration of the cases in bed has been about twenty-one days. Of sixty cases (one being operated on both sides) the number of failures is eleven: one being a woman, and one went to very heavy work as a sailor too soon, and without a truss. So did the others. The skewers we alluded to only failed *twice*.

Our space does not allow us to say more than that the chapters on the Anatomy of the "parts of hernia" are admirable; the statements frank, and evidently those of one who thinks more of the credit of Surgery than his own glory; and the Appendix of Cases valuable subjects of meditation for those who contemplate performing the operation.

Mr. Wood's experience has now been very extensive; if there be danger in the operation, he has reduced it to a minimum consistent with its efficiency. He has already sent many men back to useful labour, who might have died under the *taxis*. (Who gave that sarcastic appellation to bruising a piece of gut to death?) And last, but not least, he has shown that learning the "parts of hernia" may be of some use after all.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 12.

MR. PARTRIDGE, President.

A CASE by Mr. HOLMES COOTE was related,

IN WHICH THE LEFT OVARY WAS FOUND IN THE SAC OF AN OBLIQUE INGUINAL HERNIA, OCCURRING IN A YOUNG WOMAN; WITH REMARKS.

A young woman was brought into St. Bartholomew's Hospital with a swelling in the left groin, and suffering from the symptoms of strangulated hernia. In the course of a few hours the usual operation was performed, when the ovary and the Fallopian tube were found in the sac. A similar malposition of parts was subsequently noticed on the opposite side of the body. The left ovary was removed, some thickened omentum cut away, and the patient was put to bed; but the sickness and constipation continued, and she died four days after the operation. The cause of the sickness, etc., was displacement of the stomach and transverse arch of the colon. Mr. Coote raises two questions:—1. Was the displacement of the ovaries congenital, or the consequence of the hernia? He inclines to the former opinion. 2. The woman stated that she had alwas menstruated regularly. Now, on the examination of the body, it was found that both ovaries were well developed, and that the formation of the Graafian vesicles was going on naturally; but the Fallopian tubes were quite impervious, the uterus was completely absent, and the vagina was a short canal—an inch and a half in length, and terminating in a thin membrane. She said that she had been menstruating the week before her admission; and some of the female attendants at the Hospital noticed the usual marks, though faint, upon her dress. Are we to admit the possibility of menstruation under this abnormal condition of parts?

Mr. PARTRIDGE said it was a very interesting question to decide whether menstruation occurred, as was stated, under such circumstances as obtained in Mr. Coote's case, or whether it was merely a vicarious action. There was another question, of great importance in a moral point of view, which presented itself to Surgeons in such cases. Were they justified in emasculating, as it were, a woman in whom the ovaries were thus involved? A case had lately come under his care in which a difficulty of this kind existed. The patient was a male child, with the parts of generation so imperfectly developed that it was mistaken for a female, and christened and educated as such. It was discussed whether the testicles should be removed. The Surgeon in attendance thought that they should, as their removal would be advantageous to the child in assisting it to keep up its assumed sex. Mr. Partridge decided, however, that the operation was not justifiable, and it was not resorted to. Mr. Partridge then referred to two cases in which the uterus was absent; the one was an unmarried, the other a married woman. In each the vagina was short, but the clitoris, ovaries, and breasts were fully developed. In neither of these cases had there been any menstruation.

Mr. CÆSAR HAWKINS observed that the paper before the Society opened two interesting questions—one in relation to the operation of hernia, and one of physiological importance. Now, in hernia scarcely two operations were found to be precisely similar. He had met with two cases in which the ovary was found in the hernial sac. In one of these the patient was an elderly woman, and died of peritonitis. The Fallopian tube and ovary had been for many years in the hernial sac, and by their position had produced an elongation of the greater portion of the uterus, which with the Fallopian tube formed a canal of about fourteen inches in length. The other was a case of inguinal hernia in a lady. In the sac the Fallopian tube and ovary were found shrivelled up. In these cases he thought the better practice was to leave the ovary in the sac, as its removal was attended with danger. With regard to the statement of Mr. Coote's patient, that she had regularly menstruated, he (Mr. Hawkins) was sceptical. Cases were re-

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corded in which there was no uterus, and no true menstruation, and he thought this was the invariable rule. Mr. Hawkins then referred to the case of a lady without a uterus who had consulted him; and he mentioned, by way of caution, that she had been operated upon twice by different Surgeons, under the impression that there was some mechanical obstruction to the catamenial discharge. Something was cut through on these occasions, but of course without beneficial result.

Dr. Graily Hewitt considered the case related by Mr. Holmes Coote to be one of very great interest. It was a most unusual circumstance for a menstrual-like discharge to be noticed in cases of absence of the uterus; and, so far as he was aware, there was not a single instance of the same kind on record. Admitting the correctness of the statements made in the paper, the case was unique. He did not consider it absolutely impossible for a menstrual-like discharge to be noticed periodically in cases where the ovaries were carrying on their function; but the discharge would be in such a case, as the President had suggested, a "vicarious" one. That menstruation, in the proper sense of the word, was dependent on ovulation, physiological facts had long ago proved; and in cases of absence of the uterus, the ovaries often, as in Mr. Holmes Coote's patient, went on exercising their function. It was interesting to find that positive evidence of ovulation was present in Mr. Coote's case—viz., the cyst-like cavities in the ovary distended with a grumous-like fluid. These cases were very rare. He was consulted about three years ago respecting a young lady, a governess, who was about to be married; but there never having been any menstruation, it was thought right to obtain a professional opinion on the matter. He found the vagina merely a cul-de-sac, only admitting a probe a short distance, and no uterus could be found on very careful examination. In this case there had been on two or three occasions a menstrual nisus, showing that the ovaries were in a certain state of activity; but not the slightest appearance of menstruation had ever been observed. It was needless to add that, in this instance, any kind of operation was out of the question.

Mr. Hulke inquired what signs or symptoms had induced Mr. Coote to operate in his case, and to suspect that the ovary was present in the hernial sac? He (Mr. Hulke) had seen an instance in which Mr. Lawson had removed the ovary from the right groin of a servant girl; this at every menstrual period became inflamed and tender, and caused her much suffering. The removal was effected without difficulty, and the patient made a good recovery.

Mr. Spencer Wells said that the question raised by Mr. Hulke, as to the means of recognising an ovary when it formed part of a hernial tumour, had once come before him (Mr. Wells) in consultation. An old lady had a large labial hernia on the left side, irreducible, consisting chiefly of omentum, but containing a hard body, which was supposed to be the ovary, as there was a clear history of pain and swelling several years before at every menstrual period. All doubt was set at rest by the fact, that when the uterus, which was in its natural situation, was moved, the movements of the uterus were communicated to the displaced ovary. On the right side there was no hernia; but a hard body, like an atrophied ovary, could be felt in the labium. Cruveilhier had noticed the not unfrequent presence of the ovaries in the inguinal canal or labia of old women; and when they were found on both sides, the malposition might, probably, often be congenital.

Mr. Savory, in the absence of Mr. Coote, said, that in the case under discussion, the symptoms of strangulation were of a constitutional rather than of a local character—such as vomiting, constipation, prostration, etc. The tumour resembled a testicle; but as this was, of course, impossible, it was concluded that it was the ovary; and this was found to be correct.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, January 6.

Dr. Oldham, President.

The following gentlemen were elected Fellows:—Alfred G. Brown, Esq., Woolwich; Dr. Fleetwood Buckle, Royal Mint; William Gilbee, Esq., Melbourne, Australia; Edward Head, M.B., Harley-street; L. J. Martin, M.D., Melbourne, Australia; Dr. Playfair, London; Dr. Pugh, Melbourne, Australia; Dr. Ritchie, London; B. M. Walton, Esq., Hurstpierpoint; Dr. W. M. Whitmarsh, Hounslow.

Dr. Madge gave a short account of a case of

LESION (RUPTURE?) OF THE PLACENTA,

occurring in a patient who aborted two or three days after falling downstairs. She was four months and a-half pregnant. She was carrying a pitcher of water upstairs, and fell forwards, the bone of her stays coming with great force against the lower part of the abdomen. The placenta contained a clot of blood, which Dr. Madge was inclined to believe was the result of rupture of the placenta at the time of the accident.

Dr. Oldham and Dr. Druitt doubted the correctness of the view expressed by Dr. Madge.

Dr. E. Day read a paper on

EXTRA-UTERINE FŒTATION, AND INDUCTION OF PREMATURE LABOUR.

A specimen was exhibited, consisting of the uterus of a woman in whom premature labour had been induced, together with an old extra-uterine fœtation. She was attended at King's College Hospital in her sixth labour in 1859, when a tumour was felt behind the uterus; this was pushed up, and labour proceeded well. In January, 1861, Dr. A. Farre induced premature labour at the eighth month, the tumour still existing. In August, 1862, she was delivered of a seven months' child, the tumour being still present. She became pregnant in January following, and came again under notice in May. Labour was induced at seven months and a-half by an air caoutchouc dilator. The membranes were subsequently ruptured, turning performed, and a dead child extracted. The woman died two days after from flooding. The post-mortem examination showed that the tumour felt behind the uterus in the recto-vaginal pouch, and which was during life the size of a goose-egg, consisted of a fœtus of the size of one from three to four months old, enclosed in a thin cyst, attached to the peritoneum on the right side of the rectum. The right Fallopian tube contained a tumour, apparently the remains of an organised clot, and remains of decidual membrane.

Mr. S. Newham introduced

THE GUIDE-HOOK: A NEW OBSTETRIC INSTRUMENT.

The instrument is simply a blunt hook, with the addition of a prow or guide on the convex side. The addition of the guide is to favour the adjustment of the hook into many positions in which a hook is required, to assist in breaking up the base of the skull, and in sundry other manipulations.

Dr. Day exhibited a specimen of

ADHESIONS BETWEEN THE UTERUS AND THE RECTUM, DRAGGING DOWN THE FUNDUS.

and inquired of the Society as to the possibility of stretching such adhesions by treatment.

Dr. Oldham and Dr. Graily Hewitt made some remarks.

ANNUAL MEETING.

The Report of the Auditors of the Accounts of the Society was first read. The balance-sheet showed a balance in the hands of the treasurer of £255 12s. 3d.; while, in addition to this, there was invested in consols the sum of £550, of which latter sum £150 had been invested in the course of the last year. The amount of subscriptions received during the year was £474 12s. The sale of the "Transactions" during the year had realised £55 17s. 1d.

It was moved by Dr. Routh, seconded by Dr. Cleveland, and carried,—That the Report of the Auditors be received and entered in the Minutes. Dr. Routh alluded in terms of very congratulatory character to the exceedingly satisfactory financial position of the Society, which he considered reflected the greatest credit on the management.

Mr. Bryant and Dr. Tilbury Fox moved and seconded a vote of thanks to the President and Officers of the Society for their valuable services during the past year.

Dr. Oldham and Dr. Graily Hewitt returned thanks.

The list of "Donations" during the year having been read, the President announced the result of the ballot for Officers for 1864 to be as follows:—*Hon. President.*—Sir Charles Locock, Bart., M.D. *President.*—Dr. Oldham. *Vice-Presidents.*—Dr. Druitt, Dr. Gream, Dr. Greenhalgh, Mr. Hardey (Hull), Dr. Swayne (Bristol), Dr. Tanner. *Treasurer.*—Dr Barnes. *Hon. Secretaries.*—Dr. Graily Hewitt and Dr. Hicks. *Other Members of Council.*—Dr. Clay (Manchester), Dr. Cleveland, Dr. Hall Davis, Dr. Drage (Hatfield), Dr. Gervis, Dr. Hall (Brighton), Mr. Harrinson (Reading), Dr. Langmore, Dr. Meadows, Dr. Madge, Mr. Mitchell, Dr. Murray, Mr. Ray,

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Dr. Richards, Dr. Tyler Smith, Mr. Symonds (Oxford), Dr. Tapson, Dr. Wilson (Glasgow).

The PRESIDENT then delivered the

ANNUAL ADDRESS.

He remarked that the task before him was of a pleasing character. He had nothing to recount but progressive prosperity on the part of the Society. During the past year not a jar or discord had occurred. 41 new Fellows had joined the Society, making the present number of Fellows 535. Amongst these were gentlemen from our most distant colonies, as proof of which he might mention that this very evening three members of the Profession residing at Melbourne had been elected Fellows. In Constantinople, in India, in New Zealand, Jamaica, New South Wales, the Society had extended its ramifications. The character of the debates, the authority of its judgment on disputed points, the large sale of the Society's "Transactions,"—all these facts showed its popularity, and the estimation in which it was held by the Profession. He doubted whether those who still withheld their presence from the Society rightly measured the great interest felt by Practitioners in all relating to obstetric practice. That interest he believed to be even stronger that that felt in the other great divisions of our Profession. The independent and efficient organisation of this Society was required to do for obstetrics what the previously existing societies had failed to effect. The financial state of the Society was highly satisfactory. £550 invested in the funds, and a balance of £255 at the banker's, also ready to be invested, was the financial expression of the condition of the Society at the end of the fifth year of its existence. The Society possessed nearly nine hundred volumes of works relating to obstetrics. During the past year the Council had considered the possibility of making this library available for use by the Fellows. On the whole, it was considered advisable to wait, more especially as there had been reason to think that accommodation might be had in the present location of the Society. The matter was still *sub judice*, and the Council would carry out the idea at the earliest possible moment. Six additional Honorary Fellows had been elected during the year—Professors Faye (Christiana), Braun (Vienna), Depaul (Paris), Martin (Berlin), Dr. Beatty (Dublin), and Dr. Pagan (Glasgow). From Prof. Scanzoni, one of the first Honorary Fellows, the Society had received the gratifying compliment of the dedication of his work "On Chronic Metritis," in recognition of the manner in which it had advanced gynæcology. Four volumes of "Transactions" had been published, and a fifth would appear in the course of a few weeks. It was quite unnecessary for him (the President) to remark on the value of the contents of these volumes. They formed an important part of existing obstetric literature. To certain of the papers therein contained the Profession was indebted, amongst other things, for the establishment of the operation of ovariotomy as rational and legitimate. He had often wished that the discussions before the Society had embraced a revision of the precepts for the management of the puerperal state. No subject was more important, involving as it did the comfort and health of thousands. It involved another point of interest: What was the length of attendance included in the midwifery fee? In a court of justice he had recently been asked this question, and his reply was that a week was enough for ordinary convalescence. He had found that many still acquiesced in the old notion of a puerperal "month," during which attendance was, they considered, obligatory. There should be some uniformity on this point. He contended that the limit should be, not a puerperal month, but a puerperal week. He could only understand the need of Medical care for a month on the supposition that the precepts which are laid down in some of our midwifery books, steadily induce a debility in the first fortnight, which requires a drawling convalescence in the next two weeks to overcome. Parturition and its immediate effects should be divorced from disease, and not made to wear its likeness. A puerperal month, under the guidance of a monthly nurse, was easily drawn out. He knew no reason why, if a woman was confined early in the morning, she should not have her breakfast of tea and toast at nine, luncheon of some digestible meat at one, her cup of tea at five, her dinner, with chicken, at seven, and her tea at nine; or the equivalent, according to her habits of living. Common sense must guide in the selection of articles of food. Excess and stimulants must be avoided; so also gruel and slops. Such had been his practice for the last twenty years, and by it he could affirm that the process of involution was greatly assisted, and various disorders prevented. The patient should be removed to her sofa in two or three days. He would not now pursue the subject further. In conclusion, the President stated, that during the year three Fellows had been lost to the Society by death. He begged to congratulate the Society on its present prosperity, and trusted it would increase.

A vote of thanks to the President for his interesting address, proposed by Dr. DRUITT, and seconded by Dr. GREENHALGH, was carried by acclamation. The Society then adjourned.

EPIDEMIOLOGICAL SOCIETY.

MONDAY, DECEMBER 7, 1863.

DR. BABINGTON, F.R.S., in the Chair.

A COMMUNICATION by Dr. BRYSON, R.N., Inspector-General of Hospitals and Fleets, was read, on

EPIDEMIC PLEURO-PNEUMONIA IN SOME SHIPS OF THE MEDITERRANEAN FLEET.

The disease was of a low, asthenic or typhoid type, accompanied with great congestion usually of the lower lobes of the lungs, and in many of the cases in the ship chiefly affected, the *St. Jean d'Acre*, with scorbutic symptoms, although the diet of the crew was in every respect as good as in the other vessels of the squadron. In the *Cressy*, too, there was an unusual prevalence of lung disease, often of an obscure and anomalous character, which was not easy to designate. The evidences of the pulmonary tissue being congested or even consolidated in different parts of the chest, associated with pleurisy or pleurodynia, and with such a cachectic condition of the system as might probably lead on to tubercular degeneration in chronic cases, were the most conspicuous features of the malady. Effusion into the chest was discovered in a few instances. Diarrhœal and dysenteric attacks were common both in the early and late stage. The following table shows how very differently different ships of the squadron were affected with diseases of the lungs in the course of the year, and also with other diseases, the extent of whose prevalence is usually regarded as a fair test of the healthiness, or otherwise, of a ship's crew. Attention should be paid to the number of the crew in each vessel, to estimate aright the marked difference in respect of the number of case under each head in the different ships. The reader can easily calculate the ratio of attacks to the crew for himself:—

	No. of Crew.	Cases of sickness in year.	Diseases of lungs, etc.	Diseases of bowels.	Fevers continued and remittent.	Ulcers.
Marlborough	1145	937	129	64	10	75
Agamemnon	840	881	241	58	17	80
St. Jean d'Acre	815	1601	401	171	136	115
Cressy	720	1483	298	254	12	102

The deaths from disease in the *St. Jean d'Acre* and in the *Cressy* were twice as numerous as in the *Marlborough*, notwithstanding the much smaller crews of the former vessels; and the number invalided from the first ship was fourfold as numerous. As to the chief cause of this enormous disproportion in the sickness and mortality, &c., in two ships of the same fleet and similarly exposed, it was clearly shown that this lay in the excessive overcrowding of the men at night in the *St. Jean d'Acre* on the lower deck, while in the *Marlborough* the men were more distributed on the different decks, and greater attention was paid to ventilation of the between-decks. Only fourteen inches space was allowed to each hammock in the former ship; and so thoroughly was fresh, cool air excluded from the men while asleep, that the air above the hammocks was found to be from eight to ten degrees hotter than the air below the hammocks, and so offensively impure as to cause nausea to any one going down from the open air. With such a state of things, it is not wonderful that the health of the ship was so bad during the two years while on the station, that it was at last found necessary to send her to England to be paid off. Besides several features of resemblance in the symptoms of the pleuro-pneumony in the *St. Jean d'Acre* and *Cressy* to the lung disease in cattle, it is to be noted that there are good grounds for suspecting that the affection was communicated by the sick landed from the vessels to other patients in Malta Hospital.

An animated discussion, in which Drs. Babington, Bryson, Dickson, R.N., Stratton, R.N., Murchison, Milroy, and Mr. Burge took part, followed the reading of the paper.

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OBITUARY.

SIR JAMES GRANT, M.D.

On Monday, the 18th inst., the mortal remains of the late Sir James Robert Grant, C.B., K.H., formerly of the Hill, Cumberland, were interred in the small burial-ground at the west end of St. Mary's Church, in Carlisle, leave having been obtained from the Secretary of State to reopen the family vault for that purpose. Sir James died on the 10th inst., at Basford, near Nottingham, where he had been staying for some time. He was born at Forres, in the county of Moray, in 1773, and if he had survived another month would have attained the great age of 91 years. His father's family consisted of nine sons and three daughters. Seven of Sir James' brothers died fighting the battles of their country, or from diseases contracted while on foreign service, and the deceased and his brother Lewis were knighted. Sir James served as a Medical officer of the army throughout the whole of the Peninsular war, and was the chief of the Medical department at the battle of Waterloo. He was one of the few who served in the first and last campaigns of the war—namely, that of 1793 and that of 1815. In the year 1814, while Earl Bathurst was at the head of the War department, he was appointed Inspector-General of Army Hospitals, and in that capacity he rendered such signal services to the Russian army in France, under Count Woronzow, in preventing the spread of an epidemic, that in the year 1815, at the meeting of crowned heads in Paris, he received the order of St. Anne of Russia from the Emperor Alexander in person. It is a fact worthy of mention, as showing his robust constitution, that, during thirty years in which he served his country abroad, he never had a day's leave of absence. For several years after his retirement from the service, Sir James resided at the Hill, near Carlisle, and was placed upon the commission of the peace for Cumberland, but a few years ago he went into the south of England, and died while staying near Nottingham. The funeral service was performed by the Chancellor of the diocese, and his remains were followed to their last resting-place by most of the gentry of the city and neighbourhood, including several of the leading members of the Medical Profession.

JOSIAH SMYLY, ESQ., VICE-PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

We regret to have to announce the death, after ten days' illness, of Mr. Smyly, the senior of the six Surgeons of the Meath Hospital and County Dublin Infirmary, which occurred on the morning of the 19th instant, at his residence in Merrion-square. Mr. Smyly was son of the late John Smyly, Esq., K.C., and on his mother's side was nephew of the late Sir Philip Crampton, Bart., under whose guidance he commenced his Professional career. Having graduated in arts in the University of Dublin, young Mr. Smyly proceeded to Paris; and during his stay in that metropolis he received, under the ministry of the Rev. Lewis Way, in the English Church in the Champs Elysées, those religious impressions which so strongly characterised him during the remainder of his life, as an earnest and devoted Christian. On the death of the late Mr. Hewson, in 1831, he was elected one of the Surgeons to the Meath Hospital; and in June last he was chosen Vice-President of the Royal College of Surgeons in Ireland. Mr. Smyly was not an extensive writer: his principal contributions to Surgical Science are to be found in the *Dublin Quarterly Journal*, and consist of essays on "Lithotrity," on "Compound Fractures of the Patella," and on "Thoracentesis in Empyema." Respected for his Professional attainments, esteemed in private life, and distinguished by active zeal in every plan of Christian usefulness, his loss will be long and deeply felt by a wide circle of friends in every rank in society.

THE LATE DR. WEBSTER, OF DUNDEE.

(From the *Dundee Advertiser*.)

Dr. Webster was a native of the parish of Inverarity, in which his father was an extensive tenant farmer. He was born in 1799, and, after receiving such an education as the parish school could give, he went to the High School in Forfar. On the completion of his school education, he selected the Medical Profession, and was apprenticed to Dr. Hull, of Forfar. At its close he went to the University of Edinburgh, and, having passed through the usual curriculum of study, took out his degree of M.D. in 1822. In a few months thereafter he went a voyage in the capacity of Surgeon in an East Indiaman, bound to Calcutta. In May, 1825, he commenced the practice of his Profession in Dundee, and his frank manners and good-humoured disposition soon gained for him a numerous circle of friends. In 1832 he was appointed by the Governors of the Infirmary to fill the office of Dispensary Surgeon; and during the dreadful epidemic of cholera which burst out in that year he was appointed Secretary to the Board of Health, and many will no doubt retain a vivid recollection of the morning bulletins he then issued, announcing the number of cases and deaths occurring on the previous day. In 1833, the office of Police Surgeon having become vacant by the death of Dr. Stephen, he was appointed by the Commissioners as that gentleman's successor. Being a good practical chemist, the Doctor was in the frequent habit of giving lectures on chemistry in the Watt Institution; and in 1835 he was appointed by the magistrates to analyse water procured from various sources, with the view of finding the quality best suited for the use of the inhabitants, and the same year he was called before a Committee of the House of Commons to give his evidence on the question. In 1839 he was appointed by the Directors of the Infirmary one of the daily Visiting Physicians, which situation he filled to the satisfaction of all for about twenty years, and, on resigning a few years ago, he was appointed Senior Consulting Physician. In 1840 he took an active interest in the formation of a Statistical Society, but, though supported by many gentlemen well qualified for such investigations, and warmly encouraged by the late eminent and enthusiastic statistician, Dr. Cleland, of Glasgow, it appears never to have come into practical operation. The office of daily Visiting Physician to the Infirmary afforded the Doctor a large field for statistically observing diseases; and in fevers and other prevailing epidemics he took great interest in tracing their origin and in studying their mode of propagation, ratio of mortality, etc., and we believe he succeeded in collecting a great number of valuable facts and observations on such matters, some of which are to be found recorded in the annual reports of the Infirmary. To Medical friends accompanying him in his rounds through the wards in the Infirmary he had always something new to impart on his favourite subject of study, fever; and it was but the other day we noticed, in a pamphlet by Dr. Steel, of Forfar, "on the changes of the type of typhus, etc.," that his attention was first drawn to the peculiar eruption in typhus by his friend, Dr. Webster, of Dundee, about twenty-five years ago, in the Dundee Infirmary. The Doctor never took any active part in our local politics, but always showed great interest in all matters tending to local improvement. To mark the plan and watch the progress of any public building in the course of erection was a great treat to him; and often have we been amused by seeing him in wet and in cold inspecting such with an earnestness as intense as if it had been his own. Unless with one exception, we do not remember of Dr. Webster ever taking part in any of our public meetings or discussions, however much opinions might be advanced jarring with his own. Indeed, in the company of strangers, he appeared to be, if not diffident, at least silent and reserved. A singular exception to his usual diffidence was the Doctor appearing on the stage of our theatre in the character of Captain Thornton, in the play of "Rob Roy." The exchequer of the Infirmary being exhausted, it became a serious question, in a time of much public distress, how it could be most readily replenished. The Doctor, as an important office-bearer, naturally felt an interest in it, and having at the time Medical charge of the soldiers stationed in the barracks, and, of course, frequently coming in contact with the officers, the thought occurred to him that the novelty of some scenic entertainment, performed by amateurs in the art, might draw together a respectable audience. On making this known to the officers, and to other young gentlemen in the town whom he thought likely to enter into his views, they readily agreed to give their services, but on one condition—that the Doctor himself should take a part. The Doctor, rather than it should fail, reluctantly agreed to do so, and a sufficient staff of amateur actors was soon mustered for the occasion. The affair turned out what, in histrionic language, is called a "great success,"—that is to say, it procured what was much wanted, funds to meet the exigencies of the Infirmary. A few months after, it was followed by an oratorio, presided over by the late Earl of Airlie, by which a handsome sum was realised, and handed over to the treasurer of the Infirmary. It is but due to the memory of Dr. Webster to state that this mode of raising

funds in behoof of the Infirmary originated with himself; and if his modesty in placing himself before a public audience was for once overcome, it was only so by one of the noblest motives that could influence the human heart—that of affording the wealthy a few hours of rational and innocent entertainment, to receive in return a small portion of their riches to sustain and keep alive those less blessed with earthly treasures. For some months before his death, which took place on December 8, Dr. Webster had been the subject of pulmonary disease. He survived for many years a wife and three sons, the eldest of whom, a student of law, residing in Edinburgh—a young gentleman, we understand, of great promise—was drowned some twelve years ago while bathing at Portobello. An only daughter, who is married, survives him.

LEGAL INTELLIGENCE.

DUBLIN ROLLS COURT.

The Attorney-General, at the relation of the Provost and Fellows of Trinity College, petitioners; the King and Queen's College of Physicians, respondents.

The hearing of this important case, which is to decide the right of the Irish College of Physicians to confer the title of Doctor of Medicine, was commenced on Saturday, January 16.

The Solicitor-General, with whom were the Attorney-General, Messrs. Brewster, Q.C., Lloyd, Q.C., Dames, and Waters, instructed by Mr. John H. Nunn, appeared for the petitioners, and stated their case; and

Sergeant Sullivan, Mr. J. E. Walsh, Q.C., and Mr. Wm. Smith, with Messrs. Smith and Whitestone, as solicitors, appeared for the respondents.

The petitioners prayed for a declaration, that the respondents are not legally authorised to admit any person to the degree of Doctor of Medicine, or to grant or issue any license or diploma purporting to admit to the degree of Doctor of Medicine, or certifying by such license that such persons are, by virtue thereof, entitled to the degree of Doctor of Medicine, or implying that such license has conferred the degree of Doctor of Medicine, or in any other form purporting to confer the title of Doctor of Medicine, or give the persons to whom such testimonial is granted the right or privilege thereof to use the title of Doctor of Medicine, or the initial letters M.D.; and that the respondents may be restrained by injunction from admitting any person to the degree of Doctor of Medicine, or granting, or issuing any license, diploma, or letters testimonial, purporting to admit to the degree of Doctor of Medicine, or confer the rights or privileges of that degree, or the privilege of using the initial letters M.D. The petition set forth the letters patent granted by Queen Elizabeth in 1592, incorporating Trinity College, and establishing that institution as the "mother of an university," and ordaining that no one should in any other place make public profession of or teach the liberal arts within the kingdom of Ireland without special license from the Crown, and that students should have the privilege of obtaining the degrees of Bachelor, Master, and Doctor, after suitable periods, in all the arts and faculties. By letters patent of Charles I. in the year 1637, the previous letters patent of Elizabeth were ratified and confirmed, and from that period to the present the corporation of Trinity College, Dublin, have enjoyed the privilege thereby conferred of granting degrees in the arts and faculties, and, amongst others, have granted degrees in the Faculty of Medicine to candidates complying with the rules and regulations of the College, the graduates obtaining such degrees being entitled to use the initial letters; that the said College was the only body in Ireland who, from the date of its charter, possessed the privilege of granting degrees in said arts and faculties until 1850, when the Queen's University in Ireland was established, with the power of granting degrees in the arts and faculties, and that among the qualifications required by the Provost and Fellows and Scholars of Trinity College was one (still in force) that the candidate for the degree of Doctor of Medicine should have previously attained an university degree in arts. The petition further stated that the College of Physicians owes its foundation as a college to one John Stearne, M.D., and one of the Fellows of Trinity College, Dublin, who, in the 17th century, induced the Provost, Fellows, and Scholars of the College to grant certain premises, called Trinity Hall, then near Dublin, for the sole and proper use of the Physicians; and, by letters of King Charles II., the said John Stearne and others were, on August 8th, 1667, incorporated as "the President and Fellows of the College of Physicians in Dublin," and John Stearne was appointed the first president; and it was provided, that (in consideration of the gift of Trinity Hall) the Provost, Fellows, and Scholars of Trinity College, Dublin, should, after Dr. Stearne's death, from time time elect, from the College of Physicians, some one to be president thereof, and should have the privilege of admitting to the membership or fellowship of such College of Physicians such persons as were deemed fit, and practised in Medicine; and, that within Dublin, or within seven miles thereof, no person should practise the faculty of Medicine without having been admitted thereto by letters testimonial under the seal of the College of Physicians. These letters patent were, however, surrendered in the fourth year of the reign of King William III. and Queen Mary, and fresh letters patent were granted, incorporating the "King and Queen's College of Physicians in Ireland," and Dr. Patrick Dun and thirteen others—seven of whom were the surviving Fellows of the previous College of Physicians—were constituted the first President and Fellows, and the election powers and authorities of the said Fellows and College, etc., were duly provided for, but their ordinances, orders, acts, etc., were to be in accordance with the laws, statutes, rights, and customs of the kingdom. Provision was also made for the examination and licensing of persons desirous of practising Physic, and the King and Queen's College of Physicians were authorised to give testimonials to such persons. Those letters patent likewise provided that no person, save graduates of the Universities of Dublin, etc., should practise Physic in Ireland until he should have been examined and received a testimonial from the said King and Queen's College of Physicians, under a penalty of £5; but it was specially enacted that all graduates in Physic of the University of Dublin should, on application, be immediately admitted into the College of Physicians without further examination, on paying the usual fees; but this last-mentioned provision was repealed by the 40th George III., cap. 84. Three years after the granting of those letters patent, the College of Physicians, in October, 1695, ordered that whoever was to be a Fellow of the King and Queen's College of Physicians was first to be a Doctor of Physic of the University of Dublin, because there was entered in the registry of the University an order, that whoever took a Degree in the Faculty of Physic should give timely notice to the President and Fellows of the College of Physicians to be present at the performances of the exercise and arts, to give judgment whether the candidates be duly qualified. It was contended by the petitioners that this fact was strong evidence that the King and Queen's College of Physicians did not then claim any privilege of granting degrees or of admitting to the title of M.D. independently of the University of Dublin. The petitioners relied on the 25th George III., cap. 42, secs. 15 and 16, and the 40th George III., cap., 84, secs. 19 and 42, as showing that no power of conferring Medical degrees was conferred on the College of Physicians. From the date of the charter of William and Mary down to 1860, the College of Physicians have held public examinations of students in physic, and have granted letters testimonial licensing such persons to practise physic; but such letters testimonial did not purport to confer on the person any degree or right to use the title "Doctor," or append M.D. to his name, but merely constituted him a licentiate of the College of Physicians. However, in the year 1860 the College of Physicians conceived the design of assuming the right to confer degrees in medicine, and announced, by public advertisements in the daily papers in 1861, that they had the opinion of the Attorney-General for Ireland and the Solicitor-General for England to the effect that their fellows and licentiates were entitled to the degrees and title of M.D., and to embody such in their diploma, and adopted a form for granting the degree, title, and qualification of "Doctor of Medicine," and have since professed to confer degrees in medicine in that form. It was submitted by the petitioners that the granting of such testimonials was and is a distinct excess and violation of their charter and authorities, especially having regard to the fact, that in all cases where degrees are authorised to be conferred by universities certain oaths are by law required to be administered to the candidates; whereas there is no officer of the College of Physicians empowered to administer the oaths by law enjoined on all persons obtaining degrees in any of the arts or faculties in an university. By the published regulations, dated 1862, of the College of Physicians, the form in which the President admits to the Licentiateship and Doctorate in Medicine was given, and also the form of their diploma was alleged to be a

mere colourable attempt to avoid the use of the word "degree," by employing the phrase "entitled to the title of Doctor of Medicine;" while in effect the diploma purported to confer a title and a degree in medicine, which those persons only who have obtained the degree of M.D. in an University are entitled to assume and enjoy. The granting of diplomas, in this last mentioned form, it was submitted, is an act in excess and violation of the powers vested in the College of Physicians by their charter, and the right to grant degrees is vested in such bodies only to whom the Crown expressly grants such power, and the power to confer such degrees is not given to the College of Physicians by charter or otherwise; and it would be mischievous and dangerous, and tend to lower the standard of attainments in the arts and faculties, to permit any public body not duly authorised to grant certificates, purporting to give the holders the right to assume the titles which, by law and usage, are recognised as belonging to the Graduates of an University; and by doing so the College of Physicians are arrogating to themselves the exercise of the prerogative of the Crown to grant degrees, and the right to do so in Ireland has been delegated by the Crown only to Trinity College and the Queen's University; and unless the College of Physicians be restrained injury will result to the public, inasmuch as many persons who otherwise would enter a University, and there obtain a University education, with the ultimate object of obtaining degrees in medicine, may no longer do so, and thereby the Practitioners in Medicine will no longer enjoy the advantage of liberal education in a University. Also, the emoluments of Trinity College from fees from candidates for degrees in medicine will be greatly diminished if the College of Physicians be any longer suffered to grant titles purporting to be degrees, without requiring candidates previously to have a University education, or obtain a degree in arts. Besides, there is a School of Medicine in Trinity College, Dublin (under Professors of great eminence), enjoying high reputation and character, which would likewise be injured if the College of Physicians persist in the course they have adopted, and which they announce they will do, in the *Medical Times*, *Lancet*, and other Medical journals. They are still granting testimonials and admissions in the form mentioned to persons who have not obtained the degree of M.D. in any University, and, having been applied to on the subject, declined to enter into any correspondence with the petitioners in relation to the assumed power to grant such licenses and certificates, etc.

Mr. Lombe Atthill, M.D.; the Registrar of the King and Queen's College of Physicians, filed an affidavit in sustainment of the respondent's view of the case, and relied on the charters granted to that Corporation by King Charles the Second and by King William and Queen Mary, and the statutes and by-laws of the College of Physicians. He denied that the first charter was, as alleged, surrendered, but insisted on its remaining in full force, so far as the second charter is not repugnant thereto, and stated that it was currently reported, that for 200 years the persons who from time to time received the diploma authorising them to practise Physic generally have been publicly known or designated as Doctors of Medicine or of Physic, and are so recognised by several Acts of Parliament. He set forth the form of diploma or license exclusively used in the College since January 1, 1862, and deposed that they had not purported to confer any degree of Doctor of Physic or Doctor of Medicine to any person, nor do they intend to do so; but, independent of the question whether they have power to confer degrees, he submitted that they had full authority to grant licenses or diplomas in the form set forth, stating that the party was thereby entitled to the title of Doctor of Medicine, and the persons to whom such shall have been granted have a right to practise Physic and assume the title of Doctor of Medicine, although they may not have obtained any degree from Trinity College, Dublin, or any other university. He denied that the title of Doctor was exclusively attached to persons who have obtained degrees of the rank of Doctors of Medicine in Trinity College, Dublin, or other universities, but is, on the contrary, by usage, and even since the granting of its charters, used by and attached to all persons who obtained the license or diploma of the College of Physicians. Dr. Atthill denied that the order of October 2, 1695 (above referred to) afforded any such evidence or proof as the petititoners attributed thereto, and submitted that it applied only to the admission of Fellows, and not Licentiates, of said College of Physicians, and was subsequently rescinded by another order, and could not have operated to prevent the admission of a Licentiate or any person who had obtained the degree of Bachelor of Medicine, although he had not obtained the University degree of Doctor of Physic; and further, that the said order, and one by the Provost and Fellows of Trinity College, Dublin (dated June 25, 1701), were matters of arrangement between the parties, and determinable by either of the said Colleges at discretion. Dr. Atthill denied that the granting of the testimonial was in excess or violation of the charters or the powers or authorities of the College of Physicians, nor do they profess to have granted the degree of Doctor of Medicine. He denied that the certificate was a colourable attempt to avoid the use of the word "degree," or that it purported to grant a degree as a "University degree," but submitted that it purported to grant the "title of Doctor in, or of Medicine of the said College of Physicians only." He denied many of the allegations of the petition, such, for instance, as the alleged assumption of the prerogative of the Crown; or of the likelihood of injury to the public as alleged; or that a person wishing to practise Medicine would think it unnecessary previously to obtain an university degree. He thought that the alleged standard of education required by the College of Physicians was as high, if not higher, than that required by Trinity College, Dublin, or its School of Medicine, and that several persons who had become graduates in Medicine in Trinity College, Dublin, had, at examinations, been subsequently rejected by the College of Physicians, and stated that they relied on 40th Geo. III., cap. 84, sec. 45; 1st Geo. III., cap. 14; and 25th Vic., cap. 15. He submitted that it was immaterial whether the number of students in Trinity College, Dublin, was diminished by the conferring of such testimonials by the College of Physicians, or that Trinity College, Dublin, would in any degree be injured thereby; and that, without doubt, the College of Physicians is more competent to judge of the qualifications of Physicians than the Universities. He submitted that persons possessing the diploma of the College of Physicians in the form set forth are entitled to use the name or title of Doctor of Medicine, although they have no university degree, and are not liable to a prosecution under the Medical Act, 1858, sec. 40; and he submitted generally that the petitioners have submitted no case to entitle them to the relief they prayed.

Dr. Toleken, Senior Fellow and Registrar of Trinity College, Dublin, filed an answering affidavit to that of Dr. Atthill. Dr. John Hughes, Mr. William M. Burke, and Dr. Aquilla Smith, likewise filed affidavits in support of the respondents' view of the case, and deposed that it was the usage and custom of persons who had received the diploma of the College of Physicians to receive same without a previous university degree, and to assume the title Doctor of Medicine, and that it was the general repute that for a period of 200 years such a custom had prevailed.

The hearing of the case has not concluded.

BENNETT *v.* HICKSON.—COURT OF EXCHEQUER, Jan. 15.—(Before the Lord Chief Baron, and Barons Martin, Channell, and Pigott.)—It will be remembered that this action was brought by the plaintiff, a Surgeon practising at Worksop, in Nottinghamshire, against the executors of Mr. Thomas Beardsall, a Surgeon, formerly practising in the same place, for breach of agreement. Mr. Bennett was the purchaser from the executors of Mr. Thomas Beardsall's practice. The breaches complained of were—first, that Mr. William Beardsall, Surgeon, brother and executor to Mr. Thomas Beardsall, had said of the plaintiff that his charges were too high, and had thereby induced a patient of the plaintiff, named Smith, who had also been a patient of the testator, to leave him; second, that William Beardsall had competed with the plaintiff for, and had obtained the post of Medical officer to a lodge of Odd Fellows, which had been held by the testator in his lifetime; and, third, that W. Beardsall had competed with the plaintiff for, and had obtained, the post of Medical officer to a sick club; which, however, had not been enjoyed by the testator. The cause was tried at Nottingham, at the last Spring Assizes, before Mr. Justice Williams, when a verdict was found for the plaintiff, with £100 damages. Mr. Sergeant O'Brien and Mr. Beasley now showed cause against a rule which had been obtained to set aside this verdict on the grounds that it was against evidence and that the damages were excessive. They contended that by the strict construction of the agreement W. Beardsall was bound to abstain from the acts complained of, which were all of a nature to injure the plaintiff in his practice. Mr. Boden, Q.C., and Mr. Cave, who appeared in support of the rule, contended that the agreement had only reference to the testator's practice, and was complied with

when the defendant had issued the circulars and had introduced the plaintiff to the testator's patients. W. Beardsall was not bound to give up practice, and at any rate was free to compete with the plaintiff for any patient not belonging to the testator. They also submitted that the damages were excessive. The Court adopted the latter view, and made the rule for a new trial absolute, unless the plaintiff consented to reduce the damages to £50, and to accept that sum in full satisfaction of all claims under the agreement.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 19th inst., and, when eligible, will be admitted to the Pass Examination :—

G. H. Hills, T. E. D. Hayes, W. T. G. Hicks, R. J. Andrews, J. C. Roberts, and C. E. Blair, students of Guy's Hospital; P. C. F. Kilroy, A. E. Conolly, R. F. Allen, and E. P. Davies, of the Dublin School; J. H. Wraith, E. Child, D. M. Williams, and E. Horne, of the Charing-cross Hospital; G. Shannon and J. G. Coulter, both holding the qualification of M.D. Queen's University, Aberdeen, and H. C. Manley, of the Belfast School; W. B. Stirling and W. Powles, of the London Hospital; R. Brennan and H. G. B. Harris, of St. George's Hospital; J. C. Leach and E. R. Woodford, of University College; J. Hope, of Newcastle; J. B. Blanchet, M.D., and Master in Surgery of Montreal, of St. Bartholomew's Hospital; T. H. Morris, of St. Thomas's Hospital; J. C. Macaulay, of Birmingham; W. A. S. Dykes, of Hull; and F. Argles, of King's College.

Also, on the 20th inst. :—

W. H. Harding, H. Hyde, F. Flint, and C. G. Leacock, Students of King's College; T. Warren, J. F. H. Richardson, W. May, and W. H. Bryant, of St. Bartholomew's Hospital; W. R. Goodfellow, B. Blewitt, J. Todd, and J. Rogerson, of the London Hospital; F. Chabot, A. Kisch, W. H. Strange, and J. Carless, of St. Thomas's Hospital; T. Cuppage, W. L. White, and R. N. Macpherson, of Edinburgh; C. Broom and R. Orme, of Guy's Hospital; E. O'Leary and W. McConnell, of Dublin; W. Pogson, of Leeds; W. Skinner, of Sheffield; H. Jones, M.D., Heidelberg; T. Hora, of St. Mary's Hospital; R. Z. Miller, of the Middlesex Hospital.

The following gentlemen have just passed their Preliminary Examinations at this College, viz. :—

G. Abbott, G. Andrews, J. Bartlett, J. J. Benyon, J. G. Beasley, H. M. Briggs, R. B. Boswell, J. W. Burman, H. Case, R. M. Cole, G. J. Chadwick, J. W. Carr, W. Davies, T. V. de Denne, T. B. Dyer, W. Drinkwater, W. H. Edwards, H. F. Elliot, J. T. Evans, J. Evans, C. Fitzgerald, J. T. Fox, J. Foster, T. W. W. Fay, T. B. Furner, A. S. Gatty, E. Gill, J. H. O. Goulden, J. T. Green, A. F. Greenhill, C. Gadson, W. H. Gregory, A. Hallam, S. L. Herbert, H. E. Hestling, C. E. Hobbes, J. G. Huxford, W. D. Hutchins, C. Higgins, J. S. Jarvis, J. Jenkins, R. W. Jones, H. E. Juler, E. J. Kirkman, T. W. Lee, C. W. Latham, A. Morton, C. G. Newington, R. B. Nowell, E. Peacock, J. E. Peirce, R. H. Prior, J. W. Pindes, J. Reynolds, G. M. Roberts, G. Salt, J. P. Smith, R. H. Stevens, E. E. Tarleton, G. E. Terry, A. Wall, G. E. Walker, C. Wells and T. E. Webb.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, January 14, 1864 :—

James Bredin Beresford Ryley, Myshal, County Carlow, Ireland; Frederick Joseph Keene, Holbrook, Ipswich.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ALLINGHAM, JAMES H., M.R.C.S. Eng., has been elected Honorary Dental Surgeon to the Asylum for Female Orphans, Westminster-road.

BURROWS, GEORGE, M.D. Cantab., F.R.S., has been elected President of the Medical Council.

GUY, TOM, M.D., has been appointed Deputy Coroner for Doncaster.

LAPRAIK, THOMAS, M.D. Glasg., has been re-elected Physician to the Glasgow Asylum for the Blind.

MALCOLM, ROBERT B., M.D. Edin., has been appointed Physician to the Fettes College, Edinburgh.

O'NEILL, WILLIAM, M.D. Aberd., has been elected Physician to the Lincoln Lunatic Hospital.

PAGET, GEORGE E., M.D. Cantab., has been appointed Physician to Addenbrooke's Hospital, Cambridge.

PAUL, JAMES T., M.R.C.S. Eng., has been elected Surgeon to the Hunter-street section of the E Division, Metropolitan Police.

DEATHS.

BAYNE, JOHN, L.F.P.S. Glasg., at Dumbarton, Scotland, on January 10.

CRAIGIE, JOHN L., F.R.C.S. Eng., at the Woodlands, Chigwell, Essex, and of Finsbury-square, on January 14, aged 50.

DUNCAN, ALEXANDER, L.R.C.S. Edin., at 11, Ladbroke-villas, Notting-hill, W., formerly in H.E.I.C.S., on January 13.

GRANT, Sir JAMES ROBERT, M.D., C.B., K.H., at Basford, Nottingham, on January 10, aged 90.

HARDWICK, ROBERT G., M.D. Lond., at 7, Park-square, Leeds, on January 19, aged 30.

LOCKWOOD, JOSEPH, M.R.C.S. Eng., at Honley, near Huddersfield, on December 15, aged 29.

SMITH, JOHN, M.R.C.S. Eng., of the Royal Hospital Schools, in Greenwich Hospital, on January 17.

SMYLY, JOSIAH, F.R.C.S.I., Vice-President of the Royal College of Surgeons, Ireland, at Merrion-square North, Dublin, on January 19.

VINCENT, CYRIL JOHN, M.R.C.S. Eng., at High-street, Oxford, on January 14, aged 34.

WHITTLE, EDWARD H., M.R.C.S. Eng., at Brenchly, Kent, on January 15, aged 44.

ROYAL COLLEGE OF PHYSICIANS.—The lectures of the present year will be delivered at the College, Pall-mall East, at five o'clock on each of the following Wednesdays and Fridays :—Dr. Garrod—January 27, 29, February 3, 5, 10—"The British Pharmacopœia : its Construction, its Comparison with the London Pharmacopœia, and the Value of its New Remedies in the Treatment of Disease." *Gulstonian Lectures.*—Dr. Markham—February 12, 17, 19—"The Uses of Blood-letting in Disease." *Croonian Lectures.*—Dr. Basham, February 24, 26, March 2—"On Dropsy : its Significance as a Symptom in Renal, Cardiac, and Hepatic Diseases." *Lumleian Lectures.*—Dr. Barclay—March 4, 9, 11—"Fallacies in the Application of the Inductive Method of Reasoning to the Science of Medicine."

*** Dr. Garrod's lectures on the "British Pharmacopœia," revised and corrected by himself, will be published regularly in this Journal.

THE COLLEGE LECTURES.—The Course of Lectures for the present year will be commenced in the Theatre of the College on Tuesday, the 2nd proximo, by Professor Huxley, F.R.S., who will deliver twenty-four lectures "On the Structure and Classification of the Mammalia;" at the conclusion of which, Professor Fergusson, F.R.S., will commence his Course. There will not be any Hunterian Oration this year; it is only now delivered biennially.

ROYAL INSTITUTION.—Tuesday, January 26, at 3, Professor Tyndall, F.R.S., "On Experimental Optics." Thursday, January 28, at 3, Professor Tyndall, "On Experimental Optics." Friday, January 29, at 8, Professor Frankland, "On the Glacial Epoch." Saturday, January 30, at 3, John Lubbock, Esq., "On the Antiquity of Man."

THE PARIS SOCIETY OF SURGERY.—This body, at its first meeting for this year, elected Dr. Robert Adams, of Dublin, and Messrs. Hodgson and Paget, of London, as foreign associates; and MM. Melchiori, Gamgee, Bruns, and Gherini, have been elected as foreign correspondents.

THE QUEEN'S COLLEGE, BIRMINGHAM.—Mr. William Sands Cox, the Treasurer of the Queen's College, Birmingham, has issued a financial report to the patrons and friends of the College, which he prefaces with the following letter :—"Birmingham, December 12, 1863.—My Lords and Gentlemen,—It is with great pleasure and much thankfulness that I place in your hands the report, from which it will be seen that the trade liabilities which I took upon myself have, through your liberality, been discharged; and I have no hesitation in stating, that from the experience of three years as Treasurer *pro tem.*, the College, provided all the departments be consolidated under one roof, may be made self-supporting. The past year has been one of difficulty, but yet of progress; of severe trial, but still, happily, as the returns of students show, and as the audited balance-sheet proves, of success. With unanimity, and in the words of my co-trustee, Chancellor Mr. Law, 'with God's blessing, the College may still do excellently well.'—I remain, my Lords and Gentlemen, your obliged servant, WILLIAM SANDS COX, Treasurer, *pro tem.* To the patrons and friends of the Queen's College."—The total number of students in the Medical Department during the academical year, October, 1862, to August, 1863, has been fifty-five. Of these, fifteen have been in residence.

CLERICAL, MEDICAL, AND GENERAL LIFE ASSURANCE SOCIETY.—The following arrangements, rendered necessary by the lamented death of the late chairman, Joseph Henry Green, Esq., D.C.L., F.R.S., have been made in the direction of this Society. The Right Hon. J. R. Mowbray, M.P., has been appointed chairman; Wm. Bowman, Esq., F.R.S.A., and Sir Charles Locock, Bart., deputy-chairmen; and James Paget, Esq., F.R.S., Surgeon to St. Bartholomew's Hospital

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and Surgeon Extraordinary to the Queen, has been elected to fill the vacant seat at the Board. The other Medical directors, who, with the three last-named, make up the number required by the deed of constitution, are Henry W. Acland, M.D., F.R.S., Patrick Black, M.D., James Dunlap, M.D., Arthur Farre, M.D., F.R.S., and Alex. J. Sutherland, M.D., F.R.S.

THE CHEMISTS' AND DRUGGISTS' OPPOSITION TO THE PROPOSED AMENDMENTS IN THE MEDICAL ACT. — The *Birmingham Daily Post* of January 14 contains the report of a meeting of the chemists and druggists of the Staffordshire Potteries, held on January 12, at the Town-hall, Hanley, for the purpose of considering the proposed amendments in the Medical Act of 1858. An idea of the tone of the meeting may be gathered from some passages in the opening speech of the chairman, Mr. Yates. He characterised the amended clauses as unjust, inquisitorial, and un-English :—"The injustice was the more monstrous because the body seeking these powers had a direct interest in shutting up as many chemists' shops as possible. The man who framed those clauses must think that the 30,000 chemists and druggists of this country a body of idiots, incapable not only of compounding medicines, but of valuing social, civil, and vested rights and interests—a body of men who might be stamped out of society without any loss to it. While, however, they denied their own degeneracy or inability to manage their own affairs, they must admit that some regulation which would place the sale of drugs in safe hands was imperatively required. He objected to examinations and diplomas, and thought the best plan to be adopted would be to grant licenses of from £3 3s. to £5 5s. to all chemists only who had served a proper apprenticeship, all other persons to be excluded from selling drugs or medicines." The following resolutions were passed :—"That this meeting unanimously condemns the 55th, 56th, and 57th sections proposed to be introduced by the Medical Council, as amendments to the Act of 1858, as unjust to the body of chemists and druggists, and resolves to memorialise Parliament to exempt all persons now in business from their action." "That the memorial be sent to Alderman Copeland, M.P., for presentation to Parliament." "That the Secretary write to the members for the county and borough of Newcastle, in the name of the meeting, requesting them to oppose the clauses referred to when the bill comes on for reading."

CONCEALMENT OF BIRTH.—The *Pembroke Dock and Milford Haven Gazette*, of January 13, contains an account of an inquest held on the body of the illegitimate child of a servant girl, named Margaret Davies. The evidence, as far as it is reported, appears to illustrate the difficulty there is in coming to a legal conclusion as to the crime of infanticide. To establish legally the fact of live birth, it is well-known that it is necessary to prove that the child whilst living has been entirely separated from the maternal passages. It is very seldom that such proof can be produced by the Medical witness. In the present case, the child was found wrapped up in a bundle in the mother's box, and there was ample evidence, in addition to her subsequent confession, that she had been recently delivered. The Surgeon, Mr. Gwynne Henry Harries, who examined the body of the child, deposed: —"It was a new-born child. I found that the child had breathed fully. I do not know that it was actually born alive. The cause of death was apoplexy. It is frequently the result of labour. It is the result of injury during labour, both in labour and after labour. I found the lungs fully developed as regards the air cells. I put them, with the heart, into water. They all floated. There were no external marks of violence on the child. I saw no symptoms, except of apoplexy, or marks of violence." The jury returned a verdict of "Death from natural causes."

THE AMENITIES OF IRISH DISPENSARY PRACTICE.—The *Nenagh Guardian*, of January 9, contains the report of a case, illustrating the pleasant relations between Doctor and patient which occasionally arise under the Irish Dispensary system. At the Newport Petty Sessions, Dr. J. Pitt Harris, Medical Officer of the Newport Dispensary, charged James Fitzgerald, of Newport, with an assault, and using threatening language to him; and Fitzgerald had a cross case against Dr. Harris. It appeared from the evidence, that one Sunday evening, about half-past six o'clock, when Dr. Harris was at dinner, Fitzgerald left a ticket at the Doctor's house, requiring him to call and see his son. As the ticket was not marked "urgent," the Doctor postponed his visit until the following day. The next morning, the defendant came to his door, knocked violently, asked the servant why he (the Doctor) "didn't go visit his son?" The man returned, and was creating a noise, when Dr. Harris went out and asked him why he was disturbing the house. Defendant became so violent that he had to call a policeman to remove him. About a quarter past eleven, Dr. Harris called to see the patient, when the defendant refused him admission; and on the Doctor pushing open the door of the room where the son lay, Fitzgerald assaulted him, and threatened to injure him with the tongs. The question arose, whether the Doctor, having received the order from the authorities to visit the patient, had a right to force his way into the man's house. The magistrates seem to have thought not, and the case was dismissed.

SMALL-POX.—Small-pox is, *par excellence*, a Canadian disease. It is rarely absent from this city (Montreal), and never absent from the country. In every town and village throughout the province, numerous traces of its former presence are visible. If we visit the French Canadian districts, we find family after family "spotted" with it; and many a mother will tell us she has to deplore the loss of a loved one by a disease which added to the usual horrors of death the swollen, distorted features, that forbid the last embrace—nay, even the last sad look of recognition. In those districts where small-pox is most prevalent, vaccination is unknown; and I am assured by Professional gentlemen of the highest respectability in country districts, it is useless to attempt to convince many of the humbler classes that there is any conservative influence in the practice. Many regard small-pox as one of the necessary ills associated with our existence. The child must get its teeth, have measles, scarlatina, hooping-cough, and small-pox; and some go so far as to expose the child to the contagion of the latter, when its health is good, hoping thereby it might run the gauntlet with greater comparative safety. The untutored savages in this country fly from it in terror; and when one is stricken with the disease (and it is supposed to have had more victims than the "fire-water," introduced by the beneficent white man), he drowns himself—preferring a resting-place among the fishes to lying a bloated, putrid mass, with no one to venture near him to moisten his lips.—*Dr. Hingston in Canada Lancet.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. Kendall's letter was received too late for insertion this week.

Ignoramus.—The degree is granted by the Archbishop of Canterbury.

C. T. C.—We think not.

Dr. Richardson will reply to Mr. Henry Thompson's letter at the close of his article on Norwich and Lynn.

A CHEMICAL QUESTION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Would any of your correspondents inform me what should be the strength of a solution of chloride of zinc, which a French author recommends should be employed at 25° of Gay-Lussac's areometer? How many grains to the ounce would this be equivalent to? I am, &c.

January 18. T. H. D.

PROFESSOR SYME AND THE EIGHT HUNDRED FEVERS!

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Mr. Syme's remarks on Medical Education, delivered at the Royal College of Surgeons on the 17th ult., have now assumed the form of a pamphlet, one difference between which and the original delivery consists in the attachment of a foot-note to page 8, relative to the "printed list of no fewer than 800 fevers," by his colleague, the Professor of Practical Medicine.

In such note he says that his statement was made "on the authority of a student;" and, further, that he has "since been informed that there are only five or six hundred."

Would it not have been more to the credit of the Surgical Professor if, before trying to hold up his colleague (whomsoever he be) to ridicule, he had sought means to back up his remarks by some more reliable proof than a statement uttered by a mere student, perhaps in earnest, but more likely loosely and in a wide sense, and with no idea at the time that his words would be repeated without their accuracy having been first tested? But there is now no further need for wonder, when, as is shown by the foot-note, he tries again to make his colleague appear ridiculous, by reducing the number from eight to five or six hundred, which he (Mr. Syme) evidently appears to think a good joke, to judge from the prefixed italics, "*only*." He does not, however, this time so broadly state it as a fact, merely saying he has "since been informed,"—I suppose by another student, and one whose powers of calculation must be "below par," and whose information is as valueless and without foundation as that of the advancer of the eight hundred. Surely the Professor of Surgery might have seen that this, his second disparaging statement, was a correct and accurate one, even if it had necessitated a scrutiny by himself of the terrible "printed list" in question.

If the numerical method, as applied to the advance of Medical science, be no more accurate than these two stated facts, what reliable benefit would result?

I think the laugh, if there be any, must, under the circumstances, be turned against the Professor of Surgery; for any one taking the trouble (as Mr. Syme evidently has not done) to examine the little list, will soon see whether the statements are correct or the reverse; at all events, it is time that informants be dispensed with if they cannot furnish more accurate facts than the ones given forth, especially when such remarks tend to the disparagement of others, and are allowed to appear in print.

Edinburgh, January 14. I am, &c. STERNUTAMENTUM.

COMMUNICATIONS have been received from—

Dr. T. LAPRAIK; Dr. W. O'NEILL; Dr. R. B. MALCOLM; Mr. C. J. TROTTER; Mr. T. MORETON; Dr. J. STIRTON; Mr. J. L. NOSWORTHY; Dr. A. PATERSON; Dr. W. DUNCAN; Dr. W. PARRY; Dr. J. C. THOROWGOOD; ROYAL INSTITUTION; ETHNOLOGICAL SOCIETY OF LONDON; Mr. J. E. MADDOX; C. T. C.; Mr. G. CUTCLIFFE; Dr. THOMAS DOWNIE; Mr. WILLIAM B. PAGE; Mr. WALTER RICKARDS; Mr. F. LE GROS CLARK; STERNUTAMENTUM; APOTHECARIES' HALL; Dr. W. C. O'BRIEN; Mr. W. PARKER; Dr. G. R. SHERATON; Dr. T. DOWNIE; Mr. GEORGE NAYLER; Dr. E. G. WAKE; ROYAL MEDICAL AND CHIRURGICAL SOCIETY; Mr. T. M. KENDALL.

BOOKS RECEIVED.

How can the Town Sewage be Best Preserved and Utilised? London. 1863.

*** A small pamphlet signed by Mr. James Edmeston, architect, accompanied by a set of four elevations and plans. It describes the operations of the Compagnie Chaufournière de l'Ouest, as established in Paris and several other large French towns.

By this system, a portable reservoir is attached to each privy, with a contrivance for separating solid fæcal matters from fluid. The latter are allowed to overflow into the usual drains. The former are removed periodically, and carried to the factory to be mixed with equal parts of ground lime. This "chaux animalisée" is inodorous, and can be sold profitably for 38s. per ton.

It is suggested to introduce the method in our metropolis, and it is hoped that prejudice may be found not to be an insuperable impediment in the way of necessary reform.

Functional Diseases of Women: Cases Illustrative of a New Method of Treating Them, through the Agency of the Nervous System, by means of Cold and Heat. Also an Appendix, containing Cases illustrative of a New Method of Treating Epilepsy, Paralysis, and Diabetes. By John Chapman, M.D., etc. London: Trübner and Co. 8vo, pp. 74.

*** In this pamphlet Dr. Chapman reprints two communications to this Journal, which may be in the recollection of our readers. He therein described a new method of treating epilepsy, convulsions, laryngismus, diabetes, and other diseases, by the systematic application of ice to the region of the spine. The bulk of this work, however, is devoted to an adaptation of the same system to a different class of disorders. The preface gives shortly the principles on which his practice is based. He shows that cold applied to the back has the effect of raising the pulse, and producing warmth of the extremities, while warmth has an opposite influence. He, moreover, expresses his belief that many maladies not usually held to depend on nervous agency—such as those in the title (diabetes and constipation)—really originate in that manner. He expresses thanks to the members of the staff of St. Thomas's and Guy's Hospitals for invitations to exemplify and test his methods of treatment at those institutions. The sections into which the pamphlet is divided begin with defective and painful menstruation, giving six cases; next, deal with leucorrhœa, and then incidentally consider coldness of the feet as a symptom of uterine disorder. Menorrhagia is somewhat unexpectedly treated by means of heat. Lastly, the influence of cold applied to the back on the development of the mammæ is briefly mentioned. Concluding remarks sum up the writer's novel views in the matter.

The subject deserves the serious attention of the Profession, not only from the high character of its originator, but also from the amount of evidence which he has already brought to bear upon it. He, however, seems to be as yet only at the outset of his investigations, and promises more detailed information hereafter. In so doing, he will confer a great boon on physiology and practical Medicine.

Notice on the Law of the Production of Sexes in Plants, Animals, and Men. By Marc Thury, Professor of the Academy of Geneva. 1863. Printed by Odell and Ives, 18, Princes-street, Cavendish-square, London.

*** Whatever may be thought of the conclusions at which the author of this pamphlet has arrived, and careful and extended experiments are the only basis on which an opinion can be fairly founded, it will not be denied that its subject is an excessively curious one, well worthy the attention of physiologists; and moreover, one whose examination may lead to very important practical results. We by no means give our assent to the statement contained in the first line of the author's introduction—that the question of the production of the sexes in plants and animals has been solved by him. It will require the evidence of a vast number of experiments conducted on a much larger scale, and recorded in a far more explicit and scientific manner than any which he relates, before his solution can be accepted. Yet, we think his observations and reasoning of sufficient interest to claim notice. Professor Thury appears first to have been led to the subject of the production of sex by a passage in Professor Lindley's "Theory of Horticulture," which states that, according to Knight's experiments, "heat is favourable to the production of male flowers in dioecious plants." In reflecting on this statement of Knight's he came to the conclusion that "heat operates mediately on plants, by bringing on a more complete elaboration of the juices, and, therefore, a more thorough maturation of the organs. Thus, the production of the male element answers to a more thorough maturation, otherwise to a more complete development of the organs." The fundamental identity of stamens and pistils as modified leaves, and the discovery that most dioecious plants are hermaphrodite, or become dioecious through abortion, are believed by the author to favour his view. In animals the author has convinced himself that both male and female sexual apparatus are constructed on one single plan, and that the differences between them are "more harmonic discrepancies in the mode and quantity of the growth." The determining causes of these discrepancies he believes to be those very causes that lead to a more complete maturation of the organs. If the ovum has reached the more complete stage of maturation when it is fecundated it yields a male, but if fecundation takes place when the ovum is less mature a female is the result, Huber had long ago observed that in bees, fecundation, when taking place early, generates females, whilst, if later, it always produces males. Some observations made by Professor Thury on fowls led to the same result. He, however, rests his conclusions chiefly on what he terms a "decisive trial upon mammifers." He obtained opportunities for experimenting at a large farm at Montet, belonging to a M. Cornaz. The animals experimented on were cows. The author writes:—"It is a well-known fact, that mammalian ova get loose from the ovary at the beginning of the rut, and that they are in a condition to be fecundated as long as the period of heat lasts; that is, therefore, even when they have reached a comparatively mature point. Truly, that period is short, but during the first stages of genetic development, when all the essential elements of the coming being are as yet undeveloped, the creative power is actively at work, and capital alterations follow each other in a very short time. I therefore directed M. Cornaz to get his cows served in the beginning of the rut, in order to procure females, and at the end of the rut to procure males." The result was, that in twenty-nine experiments, without any exception, M. Cornaz obtained, at pleasure, heifer and bull calves. M. Cornaz, in an appendix, expresses his opinion, that this discovery "will regenerate the business of cattle-breeding." It will be seen that M. Thury believes that the turning-point in the maturation of the mammalian ovum, which decides whether it shall be female or male, takes place whilst it is in the Fallopian tube. Although M. Thury's title-page speaks of plants, animals and *men*, he merely observes that the law he seeks to establish is general, and, therefore, applicable to all organised beings,—plants, animals, and mankind;—a rather broad generalisation to draw from twenty-nine experiments or coincidences observed in one domesticated species of ruminants!

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 16, 1864.

BIRTHS.

Births of Boys, 1026; Girls, 993; Total, 2019.
Average of 10 corresponding weeks, 1854-63, 1805·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	1124	1303	2427
Average of the ten years 1854-63	707·0	702·4	1409·4
Average corrected to increased population..	..	..	1550
Deaths of people above 90	..	..	12

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	3	2	9	1	9	5	5
North ..	618,210	5	7	21	2	15	18	..
Central ..	378,058	5	8	13	2	12	9	3
East ..	571,158	2	2	17	1	16	15	3
South ..	773,175	3	13	30	2	21	31	6
Total ..	2,803,989	18	32	90	8	73	78	17

APPOINTMENTS FOR THE WEEK.

January 23. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. John Lubbock, Esq., "On the Antiquity of Man."

25. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Meeting.

26. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. Alfred R. Wallace, Esq., "On the Ethnology of the Indian Archipelago." S. Casie Chitty Maniegar, "An Account of the Mookwas in the District of Putlam, in Ceylon."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Dr. Habershon, "On Effects of Implication of the Pneumogastric Nerve in Aneurismal Tumours" (conclusion). Dr. John Harley, "On the Endemic Hæmaturia of the Cape of Good Hope." Mr. Callender's "Account of Amputations at St. Bartholomew's Hospital, 1853-63."

27. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Middlesex, 1 p.m.; London, 2 p.m.

28. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.

29. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

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ORIGINAL LECTURES.

LECTURES ON THE BRITISH PHARMACOPŒIA: ITS CONSTRUCTION, ITS COMPARISON WITH THE LONDON PHARMACOPŒIA, AND THE VALUE OF ITS NEW REMEDIES IN THE TREATMENT OF DISEASE.

DELIVERED AT

The Royal College of Physicians,

By A. B. GARROD, M.D., F.R.S.,

Fellow of the Royal College of Physicians; Physician to King's College Hospital.

Lecture I.—January 27, 1864.

Mr. President,—I believe I am correct in stating, that some thirty or more years since, an attempt was made by this College, in conjunction with the Colleges of Physicians of Edinburgh and Dublin, to effect a union of the Pharmacopœias of the three countries; but after about two years' correspondence between them, it was thought desirable to break off the negotiations, it being found impossible to reconcile the many and great differences of opinion which were held by the three Colleges in regard to the general construction and details of a National Pharmacopœia. The reconciliation which the Colleges of Physicians were unable to effect, has at length been accomplished, but only by the aid of an Act of Parliament, which delegated the task into the hands of the General Medical Council, formed under this Act; and I have now to congratulate, not only this College, but the Profession at large, on the appearance, within the last few days, of the "British Pharmacopœia,"—a work so long and anxiously looked for, and which I trust will not disappoint the expectations that may have been formed of it. That it will completely satisfy all, it would be madness to suppose; for the opinions entertained by the Profession of a perfect Pharmacopœia are as diverse as it is possible to conceive. During the time that I have been engaged in the work, I have, as might be anticipated, had the feeling of many eminent Physicians and Surgeons freely expressed to me.

Some would desire that the number of our remedies should be made as few as possible; and one Physician, of no small repute, begged of me to use my influence in attempting to reduce the list of drugs to not more than twenty-five, considering that all the good results capable of being accomplished by medicine could be effected by these few agents. Others, again, would gladly see the list of officinal medicines swollen out considerably, in order to give a more extended choice to the Physician. A third set consider that a Pharmacopœia should include only the simplest forms in which drugs are capable of being administered; but, on the other hand, a fourth class look upon the work as one which should include in its pages almost every medicine which has been proposed, and likewise the formulas for all compounds which have proved efficacious in practice.

It will be found, on perusing the British Pharmacopœia, that the committee engaged in its compilation almost of necessity, and, I believe, judiciously, chose a middle course—introducing into the list of the Materia Medica substances the reputation of which has been established, and which had earned a well-founded claim, and giving only such compound formulæ of which the value was undoubted, and which were so generally employed as to render them indispensable in practice. There are, doubtless, many both simple and compound medicines still present which might well be omitted; but we must all be aware that we often have prejudices in favour of certain remedies for which it might be difficult to give reasons satisfactory to our brethren.

It must also be remembered that in a committee, subdivided into three sections, and containing in all about twenty members, the opinions and wishes of many had to be consulted, and no such definite plan, with regard to the introduction and omissions, could be followed out, as might have been the case had the task been confined to a few. Still, it was necessary that such a committee should be constructed in order to reconcile the different divisions of the United Kingdom and the various corporate Medical bodies in each. Irrespective of the value of the contents of the British Pharmacopœia, it must, I think, be acknowledged by all that a great and important work has been accomplished, in the fact, that in lieu of having three separate Pharmacopœias in this kingdom, containing preparations bearing the same names, but of different strengths, with weights of the same denomination, but of different values, we have now one national Pharmacopœia, not only for the United Kingdom, but for all our various and extensive colonies.

No one who has studied the progress of Medicine within the last quarter of a century can blind his eyes to the fact that a great change of opinion has been, and is slowly but steadily going on in regard to the treatment of disease—a change which will doubtless ultimately prove of the highest importance and value, although for a time causing shipwreck to many minds, leading some to the very depths of scepticism as to the effects of medicines, others to embrace hypotheses the most fanciful and absurd. Perhaps it may be some poor consolation to us to know that it is not among the votaries of Medicine alone that such revulsions are taking place, but that it is a necessary evil consequent on the arousing of the minds of men,—an awakening from a prolonged sleep of ignorance,—a struggle to gain some landmark upon which to rest in safety.

The knowledge of therapeutics, or the real action of medicines in controlling disease, is confessedly far behind many of the other branches of Medicine. Who amongst us, engaged in the active practice of his Profession, has not felt how powerless he often is at the bedside, even in cases where he feels assured that his knowledge of a disease is correct?—and how often do we feel confident as to the nature of disordered action, but impotent in our power of relieving it! The study of treatment, although one of the greatest difficulty, and one requiring the exercise of patience, of the absence of prejudice, and the possession of a logical mind, must necessarily, to the practical Physician, be of the highest interest, not only in an intellectual point of view, but, in addition to this, as leading us to effect the highest object of our Profession,—the prolongation of life, and the administration to the physical welfare and comfort of our fellow-creatures. Surely, then, more labourers in this field should be found; for, in addition to other inducements to its study, it is a field which, at the present day, offers the greatest probability of successful results.

In all therapeutic inquiries there is one point which it is most important not to overlook,—I allude to the natural and powerful tendency of disease to run a definite course, and the difficulty, in many cases, of influencing this progress, even by what we are induced to look upon as potent remedies. This is a most important consideration, and the neglect of it has often caused much difference of opinion as to the best mode of treating various diseases. Statistics are appealed to, and it is found that treatment, apparently the most opposite, leads to results the most similar. Such discrepancies may often be reconciled; but, in many cases, it is owing to the fact, that our treatment has been inoperative either for good or for harm, and the disease has followed its own course, without heed to the medicines which we have employed for its arrest. I need not here, before such an audience, quote examples to prove the correctness of this statement.

On the other hand, who can doubt the efficacy of drugs, if he has watched their effects in alleviating suffering and effecting cures? Who can doubt our power of alleviating pain—of arresting inflammation—of checking intermittent fever—of allaying irritability of various organs—of procuring sleep? One must be blind not to allow this power; and this proved, we have at once a groundwork upon which to proceed further.

But to return to our more immediate task. It may be well for the information of those of my hearers who have not studied the subject of Medical politics, that I should give a slight sketch of the origin of the British Pharmacopœia, and the various steps by which it has been accomplished.

In the Session of 1858 an Act called the Medical Act was obtained, and in it (sect. liv.) the following clause is found:—

"The General Council shall cause to be published under their direction a book containing a list of medicines and compounds, and the manner of preparing them, together with the true weights and measures by which they are to be prepared and mixed, and containing such other matter and things relating thereto as the General Council shall think fit, to be called 'British Pharmacopœia,' and the General Council shall cause to be altered, amended, and republished such Pharmacopœia as often as they shall deem it necessary."

Again, in a supplementary Act, it is enacted:—

"The British Pharmacopœia, when published, shall, for all purposes, be deemed to be substituted throughout Great Britain and Ireland, for the several above-mentioned Pharmacopœias; and any Act of Parliament, Order in Council, or custom relating to any such last-mentioned Pharmacopœias, shall be deemed after the publication of the British Pharmacopœia, to refer to such Pharmacopœia."

The power of publication of the national Pharmacopœia therefore was, by these Acts, removed from the three Colleges of Physicians, and vested in the hands of the Council, constituted according to the provisions of the Medical Act, and styled "The General Council of Medical Education and Registration of the United Kingdom." This Council at once appointed a Pharmacopœia Committee from amongst its members, with power to add to their number; and it was resolved that the three Colleges of Physicians should be communicated with, and requested to give their co-operation in preparing the Pharmacopœia, and for that purpose to appoint Fellows of the several Colleges to be associated with the Committee of the General Medical Council. It was also resolved that the Pharmaceutical Society of Great Britain should be communicated with for the same purpose.

The delegates honoured in being selected by this College to co-operate with the Committee of the General Council in the construction of the Pharmacopœia, were Dr. Fred. Farre and myself. Of Dr. Farre, I may be allowed to say thus much: that his extensive knowledge of the method of constructing a Pharmacopœia, gained from his labours during many years as a member and as chairman of the Pharmacopœia Committee of this College—that his clearness of thought, his logical mind, and, moreover, his untiring perseverance, combined to render him an invaluable member of the British Pharmacopœia Committee; and I am sure that he has proved himself a delegate of whom the College of Physicians may well feel proud. Of your other delegate, I can only state, that, although inexperienced in such Pharmacopœia labours at the commencement of his task, and with no pretensions to the possession of the qualities so prominent in the Physician just alluded to, still, I trust that he has not been forgetful of the honour, nor neglectful of the important duties imposed upon him by your selection.

The first point to which the attention of those accustomed to the use of the London Pharmacopœia will be naturally directed is the language in which it is written; and doubtless there will be many learned and erudite Fellows of the College of Physicians who will regret in no small degree the change that has been made. If any such be present, I must call to their minds the fact, that although the Pharmacopœia of the *London* College has always been published in Latin, yet both the *Edinburgh* and *Dublin* Pharmacopœias have been in English; and, moreover, lest any of the Fellows of this College may feel inclined in the least degree to throw blame upon its delegates for not strongly advocating the use of the Latin tongue, I must add, that the question of the language of the British Pharmacopœia was never brought under the consideration of the Committee, as it had been previously moved in the Council by Mr. Lawrence, and seconded by Mr. Teale, and agreed to: "That it be an instruction to the Pharmacopœia Committee that the Pharmacopœia be published in the English language, with the list of the Materia Medica and Compounds in the Latin language." You will, therefore, see at once that your delegates were altogether powerless in this matter.

In the section of the Medical Act which I first read, it is enacted that the British Pharmacopœia, besides containing a list of medicines and compounds, and the method of preparing them, shall likewise define the true weights and measures by which they are to be prepared and mixed; and as some very important changes have been made, I must direct your attention for a few minutes to the consideration of this subject.

The measures of the British Pharmacopœia remain unaltered. The imperial gallon, pint, and ounce, are introduced, and the latter measure subdivided into fluid drachms and minims.

With the weights, however, the case is different. In lieu of the employment of the troy or apothecaries' pound of 5760 grains, divided into 12 ounces of 480 grains each, the avoirdupois pound of 7000 grains is substituted, divided, of course, into 16 ounces of 437½ grains each, and no intermediate or smaller weights are required—in fact, no solid drachms or scruples; for weights of 60 and 20 grains would form no submultiples of the ounce avoirdupois. You will probably be inclined to ask,—Why was this alteration made? Where was the necessity for so great a change in weights, the use of which in Pharmacy had been so long established in this country? I will try and explain. Those familiar with the Dublin Pharmacopœia of 1850 (I presume I may call it even now the present Dublin Pharmacopœia) are aware that avoirdupois weights were introduced in that edition in lieu of apothecaries' weights; and it will be also observed that in the Preface of the last edition of the Edinburgh Pharmacopœia, the Edinburgh College felt well disposed to the substitution of avoirdupois for apothecaries' weights. It must also be remembered, that the British Pharmacopœia committee contained members from each of the three divisions of the United Kingdom, and in about equal numbers. Under these circumstances, the advocates for the employment of the apothecaries' weights were outnumbered, and the victory on the side of avoirdupois was very decided. This point being settled, a great difficulty still remained: how should the avoirdupois ounce be subdivided for pharmaceutic purposes. There exists an avoirdupois drachm—a sixteenth part of the ounce—containing 27 grains (troy); such a weight, however, is but little known, and only used in some particular branches of trade. It was evident, therefore, that this could not be introduced into Pharmacy, differing, as it does, so greatly from the apothecaries' drachm, yet bearing the same name. Again, the Dublin College had, in 1850, divided their (the avoirdupois) ounce into 8 drachms, each, therefore, containing 54 grains; this was another argument against the introduction of the old avoirdupois drachm. At length, Dr. Charles Wilson, the Secretary of the Edinburgh section of the Pharmacopœia Committee, proposed the following expedient—namely, the alteration of the value of the grain weight; in fact, the introduction of a new grain, differing very slightly from the troy grain, and to be designated "the apothecaries', or pharmaceutic, grain." The weights would have then stood thus:—An avoirdupois pound, containing 16 avoirdupois ounces, composed of 8 pharmaceutic drachms, 24 pharmaceutic scruples and 480 pharmaceutic grains; in short, the avoirdupois ounce subdivided exactly in the same manner as the apothecaries' ounce at present. This proposition of Dr. Wilson was carried at the first conference of the Pharmacopœia Committee, and on such basis the manuscript of the work was composed. Although never feeling quite satisfied with this adjustment of the weights, I have still no hesitation in stating, that for pharmaceutic purposes, it would have been a most convenient system, and the difference between the weights of the same denomination so slight, that the substitution of the one for the other would have been unappreciable in all therapeutic inquiries. The weights and measures, from the ounce downwards, would have exactly corresponded with each other; that is, in the case of distilled water, the fluid ounce would have been equal to the ounce by weight, and so on for the fluid drachm, scruple, and minim, which would have weighed respectively 60, 20, and 1 grains.

When it became noised abroad that the manuscript of the Pharmacopœia was approaching completion, and that this system of weights was to be employed, many and grave objections were raised against its introduction. The chief difficulty—that which weighed most powerfully in the minds of those best capable of forming a judgment—was the alteration of the grain weight; and it was asserted that the grain, —that is, the troy grain— was the standard of all the weights of this kingdom,—that, in fact, the avoirdupois pound was defined by Act of Parliament to consist of 7000 grains troy, and the apothecaries' or troy pound of 5760 such grains. The Medical Council were subjected to pressure from without, and a resolution passed at a Comitia of this College doubtless had great weight with them; and in the end, a meeting of the Medical Council was convened to determine the point, and, as a result of their deliberations, Dr. Wilson's system of subdividing the ounce was abandoned, and it was finally decided to retain the avoirdupois pound and ounce, to abolish the drachm and scruple, and to have no subdivisions of the ounce other than the grain. This system will possess both advantages and inconveniences.

The advantages will consist, first, in the abolition of weights which are comparatively seldom used, and for which there is proof that the avoirdupois was often substituted in the preparation of medicines on a large scale; and, secondly, in the weights of Pharmacy corresponding with those ordinarily employed in this country for other purposes. One of its

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disadvantages will be the necessity for the employment of large numbers in prescriptions, which will, I fear, be found very inconvenient; and the only method I can see for surmounting the difficulty is, to adopt the habit of prescribing a single dose, and then ordering a certain number to be dispensed. This is the method by which I invariably prescribe in the Hospital, and it is one which has this to recommend it,—viz., that a single glance at the prescription is sufficient to enable the prescriber to ascertain the exact amount of each component exhibited at one time.

Before leaving this part of our subject, I would remark that the London section of the Committee would gladly have seen the apothecaries' weights retained for the present; but this was found impossible, from the desire of the other sections to have the avoirdupois substituted in its place.

Probably, there are those who would have wished to have had the metrical system of weights and measures introduced; but I question, had such gentlemen been placed in a position of responsibility, if they would have been anxious to adopt it. To have substituted it in place of other weights and measures would have been unpardonable, seeing that the British Pharmacopœia is published by Act of Parliament, and therefore a compulsory work, and that many of those whom it will affect are entirely ignorant of such a system, and that slight mistakes, as between grains and grammes, might have led to fatal errors. To have placed the metrical system side by side with other weights and measures would have complicated and disfigured the work, and caused much confusion. Should the metrical system ever become legalised in this country, then, and not till then, in my opinion, should it find a place in a National Pharmacopœia. In a merely scientific work, which is, in many other respects, only intelligible to, and employed by, educated men, the case is far otherwise.

I will next endeavour to explain the construction of the British Pharmacopœia, and to point out in what respect it resembles and in what it differs from the Pharmacopœia of this College.

You will observe that the volume is divided into two parts and an appendix. The first part contains a list of the Materia Medica; the second part includes processes for making not only the ordinary pharmaceutical preparations, but likewise the various chemical substances contained in the first part. The appendix, or rather collection of appendices, we shall have an opportunity of explaining in a future lecture.

The first part, or catalogue, which may be termed the Materia Medica, differs from that of the London Pharmacopœia in many important respects. In the first place, as to its extent. In the octavo edition of the latter work it occupies only 43 pages; in the former, or British Pharmacopœia, as much as 157 pages are devoted to it; but as less matter is contained in the pages, we may roughly estimate it at about three times the extent. This augmentation is by no means due to the number of articles contained in the list, but chiefly to the manner in which the subject is treated.

In the list of the London Pharmacopœia, those substances only are contained, for the preparation of which no process is given in the second part; but in the British Pharmacopœia this distinction is not found; but, as stated in the Preface—"The Materia Medica contains, in its simplest pharmaceutic form, every definite medicinal substance, whether obtainable in ordinary trade, or prepared by the chemical processes in the second part, which the Committee of the Council found, on careful inquiry, to be so far approved in practice as to be entitled to a place in the National Pharmacopœia." And this holds good, whether a process for its preparation be introduced or not into the work. The list, therefore, is a complete one, and by reference to it alone we can at once perceive what medicines are made officinal.

Perhaps I can more readily explain the subject by giving an example or two. If we turn to the list of the London College, we fail to discover either Calomel or Corrosive Sublimate. The reason is, that processes for preparing these two salts are contained in the second part. So likewise, for the same reason, Tartar Emetic is omitted, although the Black Sulphate of Antimony is introduced, being a production of nature.

In the British Pharmacopœia, Calomel, Corrosive Sublimate, and Tartar Emetic are all introduced in the Materia Medica, although the methods of making them are in Part II.

Although the list of the London Pharmacopœia is deficient in many medicines, yet it contains several articles not employed as remedies, but only used in the processes for their preparation—such as the Black Sulphuret of Antimony, Powdered Flint, and numerous others: in the British Pharmacopœia these are altogether excluded from the Materia Medica, and placed in one of the Appendices; and thus the first part of the work is not only a complete list of the Materia Medica, but, at the same time, it contains no superfluous articles, or such as are merely made use of in pharmaceutic operations.

Next, the method in which the subject is treated in the British Pharmacopœia differs in many respects from what is found in the London Pharmacopœia. In the latter, it is true, many important characters and tests are frequently appended to the individual remedies,—still this is, perhaps, the exception rather than the rule; but in the former book, under every article in the list, much important information is afforded. In the words of the Preface, there is—"1. A Latin pharmaceutic name, by which it may be prescribed; and an English name, for use in describing the processes in the second part. 2. Its definition, together with its chemical symbol, if it be a substance of definite composition; its botanical name, if it be a plant; or its botanical source, if procured from a plant, and also in most cases a reference to a correct figure of the plant, and a statement of the quarter whence the article is obtained. 3. The characters by which it may be distinguished from all other articles of the Materia Medica. 4. The test by which it may be ascertained to be of due strength and free from known impurities or adulterations. 5. The preparations of which it is an active ingredient."

Let us take two or three short examples from the work itself; first, a chemical substance, say Oxide of Silver.

1. Its Latin pharmaceutic name, *Argenti Oxidum*, and its English name, Oxide of Silver, but not *necessarily* a literal translation of the Latin name.

2. Its definition and symbol *AgO;* the symbol constitutes in this case its definition, and, even more, it expresses accurately its composition.

3. The characters by which it may be distinguised from all other articles of the Materia Medica. *An olive-brown powder, which at a low red heat gives off oxygen, and is reduced to the metallic state. It dissolves completely in nitric acid without the evolution of any gas, forming a solution which has the characters of nitrate of silver.* You will observe, that if the chemical substance has two elements, the characters given are such as to indicate each of them—in the example now taken, both the oxygen and the silver; and this method is carried out through the entire range of the medicines with a definite chemical composition.

4. The tests by which it may be ascertained to be of due strength, and free from known impurities or adulterations. In the use of the Oxide of Silver, the article under consideration, the following is sufficient:—29 *grains heated to redness leave* 27 *grains of metallic silver.* The equivalent or combining proportion of silver being 108, and of oxygen being 8, it follows that 106 : 108 : : 29 : 27, or 29 parts by weight of silver combined with oxygen, yield, when deprived of this oxygen by heat, 27 grains of pure silver. The quantitative estimation of the elements, in this case very simple, is of itself sufficient to determine the purity of the compound.

5. The preparations of which it is an active ingredient.

In the case of the Oxide of Silver, no preparation exists in the Pharmacopœia.

As an example from the vegetable kingdom, let us take Bael, commonly termed Indian Bael.

Its Latin name is *Bela*, its English *Bael*, from the *Ægle Marmelos de Candolle.* Plate of the plant in *Pharmaceutic Journal*, vol. x., page 166. Its definition: *The half-ripe fruit, dried; obtained from Malabar and Coromandel.*

Its characters: *Fruit roundish, about the size of a large orange, with a hard, woody rind. Usually imported in dried skin, or in fragments consisting of portions of the rind and adherent dried pulp and seeds. Rind about a line and a-half thick, covered with a smooth pale-brown or greyish epidermis, and internally, as well as the dried pulp, brownish orange or cherry red. The moistened pulp is mucilaginous.*

Such are the characters, themselves quite sufficient, not only to recognise the drug, but likewise ascertain its goodness, and hence no special tests are required. Its only preparation in the Pharmacopœia is termed, Extractum Belæ Liquidum, or Liquid Extract of Bael.

As a last example, we will allude to a substance obtained from a vegetable source, Santonine, a remedy of whose action we shall speak in the course of our lectures.

Its Latin name is *Santoninum;* its English, *Santonine.*

Its definition: *A crystalline neutral substance, obtained*

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from Santonica; and its composition, or at least percentage of elements, is represented by the formula $C_{30}H_{18}O_6$.

The characters: *Colourless, flat rhombic prisms, feebly bitter, fusible, and sublimable by a moderate heat. Scarcely soluble in cold water, sparingly in boiling water, but abundantly in chloroform, and in boiling rectified spirit. Sunlight renders it yellow.*

As tests, we find stated: *Not dissolved by mineral acids. Entirely destructible by a red heat with free access of air.*

No preparations exist in the Pharmacopœia; but it is itself referred to as a preparation or active principle of Santonica, a drug consisting of the unexpanded flower-heads of an undetermined species of *Artemesia.*

I have selected for illustration some of the shorter articles, that I might not weary you with details; but you will find, under the more important medicines of the Pharmacopœia, a considerable amount of information—so much, indeed, that I think I may say, although, perhaps, it may be looked upon as heresy in a Professor of Materia Medica to do so, that the Medical Practitioner will be able, almost from this work alone, to obtain all the information he requires, as far as strict Materia Medica is concerned, of the various remedies which he will have to employ in the practice of his Profession.

In the first part of the work, therefore, every simple drug is contained, and every preparation is named or referred to.

I propose in these lectures to occupy your time chiefly in the investigation of the therapeutic value of those medicinal substances and preparations which find a place in the British Pharmacopœia, but are not in the present London Pharmacopœia. Most, or I may say all, of these remedies have been already employed in Medicine, and some of them are contained in the Edinburgh and Dublin works. I shall not attempt to give any amount of detail concerning the natural history, the physical and chemical properties, and the composition of such remedies; for, had I even time so to do, I should not consider it desirable in such a place and before such an audience; but instead of this I will endeavour to give such information concerning them as shall enable you to pursue with advantage further investigation into their physiological action, and the therapeutic powers which they possess. I propose now to pass in review the first part of the Pharmacopœia, or the list of the Materia Medica; to select those newly-introduced remedies which I consider of importance, and speak not only of them, but of any of their preparations which possess interest to the Practitioner. I shall afterwards allude to the second part of the book, giving a short account of its construction and of each group of preparations contained in it; and finally, I hope to be able to make some short allusion to the different Appendices attached to the work.

Any alterations in the nomenclature I shall allude to when discussing the different groups or individual substances in which they occur; and I shall now and then have occasion to refer to certain omissions which have been made, and allude to the causes which have led to them.

The first preparations to which I shall draw your attention are the Acids of the British Pharmacopœia, in which some changes have been made sufficiently important to call for a few remarks; and, first, with regard to Acetic Acid, or compounds containing it. British vinegar has been removed, and French vinegar substituted as usually the purer of the two, and Acetum Distillatum omitted. The so-called Acetic Acid has been altered in strength; it now contains 28 per cent. of anhydrous acid ($C_4H_3O_3$) in lieu of 30·8 per cent.; it is defined as being prepared from wood by destructive distillation. The dilute Acetic Acid is made by mixing the stronger acid with seven times its volume of water, and is slightly weaker than the preparation of the London Pharmacopœia. Another form of Acetic Acid has been introduced, termed Acidum Aceticum Glaciale, or Glacial Acetic Acid. It is so named from remaining in a crystallised state at moderately cool temperatures, as you will observe in the specimen; it is monohydrated Acetic Acid, or simply an Acetate of Water, and contains in its composition only one equivalent of water, which exists in the form of a base; the composition will, therefore, be represented, as is seen on the board, by the formula $HO,C_4H_3O_3$.

The value of Glacial Acetic Acid is partly chemical, partly therapeutic. In the former capacity it may be employed as a solvent; but in the Pharmacopœia it is, with the exception of being a component of the Creosote Mixture, only introduced as an external agent. It is a very powerful caustic; when applied to the skin it produces intense redness and pain, followed by speedy vesication. It is also used as an escharotic to warts and corns. It dissolves Cantharidine pretty freely, and a solution, so prepared, has been employed for rapid blistering. The sore produced by this acid is very severe, as the action often extends to a considerable depth; it should, therefore, be used with much caution. I have occasionally employed it with advantage in cases where the absorption of Cantharadine would have been prejudicial, as in some affections of the kidneys.

A second acid, called *Acidum Sulphurosum*, has been placed in the British Pharmacopœia for the purpose of being employed as an external agent. It is a saturated, watery solution of sulphurous acid gas, and possesses its strong, suffocating odour. There is also, in the Appendix, a salt termed the Hyposulphite of Soda, which, as well as the sulphite of the base, may be used with the same intention as the sulphurous acid itself. The composition of these may be thus represented:—

Sulphurous acid, SO_2.
Sulphite of soda, $NaO,SO_2 + 7HO$.
Hyposulphite of soda, $NaO,S_2O_2 + 5HO$.

When sulphurous acid itself, in the form of its watery solution, is applied, the full action of the acid at once ensues. When, on the contrary, the sulphite of soda, first dissolved in water, and acidified with acetic acid, is employed, the sulphurous acid is slowly evolved; and, when the hyposulphite is made use of, sulphur itself is liberated, in conjunction with the sulphurous acid.

Sulphurous acid is endowed with certain peculiar chemical properties, to which, doubtless, any therapeutic powers which it possesses are due. It is a strong deoxidising body, which has considerable bleaching powers; it is also a powerful disinfectant and an antiseptic agent; and, lastly, it is strongly destructive to vegetable life.

Sulphurous acid is only employed as an external agent, and it is chiefly made use of in the treatment of skin affections connected with the growth of vegetable parasites, or in cryptogamous skin diseases; and in such cases it is a valuable remedy; a good mode of application is in the form of a lotion, in which the acid is previously mixed with an equal volume of glycerine. There are inconveniences in the employment of the sulphurous acid arising from its liability to decomposition, and also from the readiness with which the gas escapes from the applied lotion; and in my practice I have usually chosen the sulphite or hyposulphite of soda, in lieu of the acid itself. Either of these salts may be dissolved in water, and the solution acidulated strongly with acetic acid; in the proportion, for example, of one ounce of salt, one fluid ounce of acetic acid, and about seven ounces of water. When the diseased surface is either sponged with this lotion or covered with a piece of lint moistened with the same, sulphurous acid is slowly evolved, and acts slowly but continuously upon the part. The simultaneous separation of sulphur in the case of the hyposulphite is of no disadvantage; on the contrary, in many cases, of benefit. I have heard it now and then suggested, that the acetic acid in such lotions is the remedial agent, rather than the sulphurous acid; and, to ascertain the correctness or incorrectness of such an opinion, I have repeatedly put the point to a test. For example, I have selected a patient with pityriasis versicolor, treated the eruption on one side of the body with the lotion before alluded to, and the other with a dilute acetic acid of exactly the same strength; so that, in fact, every circumstance remained the same, with the exception of the sulphite or hyposulphite of soda. In all my trials, the results of which were carefully noted in the Hospital books, the advantage has always been greatly in favour of the salts, although there is no doubt that the acetic acid is likewise a remedial agent in cases of this kind. As an internal remedy, the hyposulphite of soda or the sulphite has appeared to be of service in some cases of chronic vomiting, accompanied by the presence of the sarcinæ ventriculi, probably from the evolution of sulphurous acid. I feel assured that sulphurous acid, and more especially the salts yielding the gas slowly, deserve a more extended trial as remedial agents.

Among the Strong Acids, the only alteration I need allude to is the alteration in the strength of the Nitric. In the London Pharmacopœia its specific gravity is stated to be 1·42; in the British Pharmacopœia, 1·50. Looked upon in a Medical point of view, this is of little or no importance; its difference of causticity would not be very appreciable.

I have lastly, in this group, to call your attention to the Dilute Acids, and here some considerable alterations will be discovered. Dilute Hydrochloric Acid has been slightly increased

in strength; Dilute Phosphoric Acid more so; the amount of phosphorus contained in the pint being now 413 grains, in lieu of 360 grains. Dilute Sulphuric Acid is not materially altered; but Dilute Nitric Acid is raised in strength. I do not, however, consider that we need pay much heed to these alterations in prescribing, seeing that we usually allow a wide range from their minimum to their maximum doses; from 5 to 10 or 15 minims will still be the amounts in which these dilute acids can be conveniently administered. A compound dilute acid is now made officinal, namely, Dilute Nitro-hydrochloric Acid; the ratio of the acids is two parts by volume of hydrochloric acid to one of nitric acid, and the dilution ordered is such that the saturating powers for alkaline solutions is somewhat less than that of the dilute Nitric or Hydrochloric Acids; the dose, therefore, may be about the same.

With regard to Arsenious and Dilute Hydrocyanic Acids—remedies whose influence on the system has no relation to their acid properties—to these I shall have occasion to allude in a future lecture.

On referring to the list of the Materia Medica, a vegetable will be found contained in it, which will, perhaps, be looked for with some interest, as it is one in favour of which there is much prejudice with the public, and even with some of the Profession. I allude to Arnica Montana, or Leopard's-bane, belonging to the natural order *Asteraceæ*. The part of the plant which is now made officinal in Britain is the dried root, and from this a tincture is ordered to be prepared, with one ounce of the root to the pint of rectified spirit. As an internal remedy it is scarcely or never employed in this country, except by Practitioners holding peculiar opinions, and then in infinitesimal doses. It appears to act as a powerful irritant, exciting sneezing when applied to the nose, and producing emetic and purgative effects if given in large quantities: in milder doses it is stated to act as a stimulant to the nervous system, causing spasmodic twitchings, and it was once thought to contain a principle not unlike strychnine in its action; it has also been looked upon as an excitant to the circulation, and as producing either diaphoresis or an increased flow of urine. I must confess that my experience of this drug as an internal remedy is very slight. I have, it is true, given the tincture in some cases of chronic rheumatism, when I should otherwise have been inclined to administer serpentary; but the result of my observations was not very definite. It has been recommended in cases of paralysis, nervous headaches, and so on.

It is, however, in its influence as an external application that the chief interest of Arnica lies. Many look upon Arnica as a sovereign remedy in the treatment of contusions, sprains, lacerations, and, in fact, in almost every kind of external injury; and the amount of the tincture employed for such purposes in this country is very considerable. As the drug is now introduced into the British Pharmacopœia, it may be desirable that I should place before you any information I possess regarding it. As far as its composition is concerned, the whole plant, or, at least, the root and flowers, the parts which have been made use of, are known to contain a little volatile oil, a bitter matter, and also an acrid resin. *Cytisin* has been asserted to be its active principle by some, and an alkaloid, *Arnicine*, by Mr. Bastick.

When the Tincture of Arnica is employed as a liniment, or when it is diluted and applied as a lotion to injured parts, it is supposed to aid greatly the reparative powers. To determine this point, I have made many observations which, I think, will not be altogether without value.

If Arnica proves useful when applied to contusions or bruises, the results of accidents, it should be equally effectual when these injuries are artificially produced; and in making my trials I devised the following method:—Patients were selected, from time to time, in whom it was desirable to make use of dry-cupping, by which, as we all know, ecchymoses are caused more or less severe according to the amount of exhaustion of the glasses and the length of time they are applied. Under such circumstances we can produce at will bruises in situations well suited for the application of remedies, and can likewise have symmetrical parts of the body injured at the same time and to the same degree; and thus everything becomes well adapted for obtaining trustworthy results, as there can be no disturbing causes from the difference in the healing power of various parts of the surface, or difference in the condition of the patient. In the first series of trials six patients were chosen; on the chest of each two symmetrical bruises were made—one on each side of the sternum; on one side an Arnica lotion was applied, containing one part of Tincture of Arnica to three parts of water; upon the other side, spirit and water of the same alcoholic strength. In one case the result appeared to be in favour of the Arnica; in a second in favour of the spirit; and in the remaining four no perceptible difference could be detected. When these results were compared with those obtained from other cases in which no treatment had been used, it was found that they were very similar to each other. I should mention, that after the application of the cupping glasses, from twelve to twenty-four hours were allowed to elapse before the use of the Arnica and spirit lotions, in order to permit of well-marked ecchymosis being formed. In all the cases the lotions were kept constantly upon the injured parts for two or three days.

In the second series of trials, six patients were again chosen: from three to four bruises were made on the chests of each; one was kept constantly wet with undiluted Tincture of Arnica, another with rectified spirit, and one or two left to themselves. In two of these cases the result was most decidedly in favour of the undiluted spirit; and in four the results were, as nearly as the eye could judge, equal. The bruises left to themselves ran through all the stages of coloration, and the ecchymoses extended far beyond the original circular mark produced by the cupping-glasses; whilst in those treated with the spirit or tincture all discoloration was checked, and the bruises faded rapidly.

In the third series of trials, four patients were selected; three or four bruises were made on their backs, and treated—some with spirit alone, some with Tincture of Arnica, but in all instances oil-silk was placed on the lint saturated with the lotions, in order to prevent evaporation. In three of these cases the results were decidedly in favour of the spirit, and in one in favour of the Arnica.

In comparing the trials made with the oil-silk coverings with those in which evaporation was allowed, no very perceptible difference was observed; by the first methods much trouble is spared, as the lotions need not be applied so frequently.

For carrying out these observations, attended, as they were, with considerable labour and expenditure of time, I am indebted to Mr. H. L. Kempthorne, the present House-Physician at King's College Hospital. I may remark, that some two years since I made a similar series of trials, and with the same general results.

What are we to deduce from these observations? Certainly thus much—namely, that the application of spirit to a bruise is of very decided advantage; and hence the use of the lily leaves and brandy,—so popular an application; but, at the same time, it would appear, from chemical experience, that the addition of Arnica to the spirit is unattended with appreciable good effects; at any rate, in bruises having the characters of those induced by cupping-glasses. Under these circumstances, surely the *onus probandi* rests with those who assert that, in sprains and more severe contusions, Arnica is an efficacious external remedy.

I should state, before concluding this subject, that the tincture made use of was prepared from the flowers of the Arnica, and the Pharmacopœia tincture is one of the roots; but we know for a certainty, that any active matter contained in the root is present in the flowers; and I believe it is this portion of the plant which has been most extensively made use of in the treatment of the cases to which I have alluded.

THE PERUVIAN COCOA (*Erythroxycon coca*). — The French authorities at Peru have had their attention directed to this substance with a view of naturalising it in the French colonies, as a plant likely to prove of great utility in the military and naval service. The leaves, when chewed in moderate quantity every three hours, are said to have the power of enabling a man to do without food during three days, while it develops his muscular powers and animal spirits, and protects him against the insalubrity of climate. Its stimulant principle is three times stronger than that of coffee, and four times than that of tea. Miners and travellers are said by its aid to be enabled to take journeys of four days' duration without any other support, and it is obvious that, supposing this property to really exist, the plant may prove invaluable in forced military marches. It is to be expected, however, that these remarkable results will not be exhibited to the same extent in the persons of Europeans. Still, Dr. Montegazzi, of Milan, affirms that, although of a feeble habit of body, he was enabled to go forty-eight hours without any other aliment, and suffered no inconvenience.

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COURSE OF

LECTURES

ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

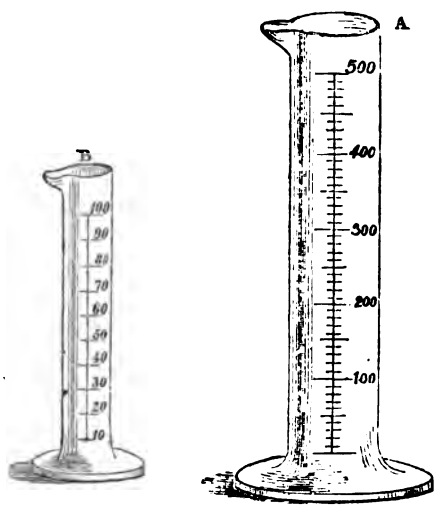
By GEORGE HARLEY, M.D.,

Professor in University College, and Assistant-Physician to University College Hospital.

(Continued from page 86.)

In all cases where we desire to make a quantitive analysis of any of the urinary constituents, healthy or morbid, we must not only have a sample of the twenty-four hours urine, but at the same time be aware of the absolute quantity that has been passed. For this purpose the collected urine may be either carefully measured in an ordinary ounce measure, and the number of cubic centimetres calculated therefrom, (b) or still better, the urine may be measured in a glass jar, Fig. 4 (A), or Fig. 4 (B), graduated in cubic centimetres, and the quantity thus at once exactly ascertained.

FIG. 4.



As there are certain physiological as well as pathological conditions which influence the amount of water voided during the twenty-four hours, it is necessary that I should at once make you acquainted with the physiological conditions on which the quantity and quality of the urine depends. These are the drink, the kind of food, the state of the cutaneous and pulmonary exhalations, the length of time the urine is retained in the bladder, the condition of the stools, the sex, the age of the individual, and the influence of remedies.

1st. *As regards the Influence of the Drink on the Amount of Urine.*—The quanity of urine passed during twenty-four hours is generally, though not always, in excess of the fluid ingesta. Böcker found that when he drank 1260 c. c. (40½ oz.) his urine amounted to 2621 c. c. (84½ oz.), and when he drank 3360 (108½ oz.) it reached the large amount of 4994 c. c. (161 oz.) in the twenty-four hours. In each case you observe the quantity of water ejected is considerably above the amount of drink taken. Professor Vogel made some interesting observations on this point. He daily weighed the food and drink of a person during 189 days, and found, as a rule, that the kidneys gave off from $\frac{1}{20}$ to $\frac{1}{10}$ more water than the fluid drunk; (c) but it occasionally happened that only $\frac{1}{3}$ of the liquid taken was thrown off by the kidneys. The more active the skin, *cæteris paribus*, the less water is excreted by the kidneys. Whenever the quantity of drink is diminished, the amount of urine passed is correspondingly decreased. We next come to the important question of

2nd. *The Influence of Food upon the Amount of the Urine.*—This is not so easily understood as the influence of drink; it is, however, quite as remarkable. Various experiments have been made on this point, but I think the most interesting are those of Lehmann. They were made during the summer months, when the amount of water is much less than in winter, and the effect of different kinds of food was as follows:—While taking 1233 grms. (39·79 oz.) of animal food (eggs), the daily amount of urine excreted was 1202·5 c. c. (38·79 oz.) of urine. When living on vegetable food, which was certainly taken in larger quantity than the animal food, he passed only 909 c. c. (29·3 oz.) of urine. Lastly, when a mixed diet was taken, the amount of the urine stood between the two cited examples. This influence of food over the daily quantity of urine seems to depend chiefly on one of its elements, namely, the nitrogen. (d)

For example, Bidder and Schmidt found that a cat fed on animal food passed 45½ c. c. (1·46 oz.) of urine for every pound of its weight. Valentin ascertained that a horse fed on corn and hay passed only 6 c. c. (0·19 oz.) of urine for every pound of its weight (e); and I ascertained that a man on a mixed diet passed, on an average, 14 c. c. (0·45 oz.) for every pound of his weight; so here we see that, even in different species of animals, the rule regarding the influence of the kind of food over the daily quantity of urine, still holds good. Another equally interesting fact is, that it is not only the quality of the food, but also the quantity, that exerts an influence over the amount of water excreted by the kidneys. This I can scarcely better exemplify than by quoting the following experiment of Bidder and Schmidt:—

A cat when fed upon

Grammes.	grains.		Per lb. of bodily weight. c. c.	oz.	
108 =	1674	flesh, passed	91 =	2·9	of urine.
75 =	1162	,, ,,	71 =	2·2	,,
44 =	682	,, ,,	53 =	1·7	,,

Here the animal had drink *ad libitum;* and when the water was removed, though still receiving 44 grammes (682 grains) of flesh, the urine diminished to 26 c. c. (0·83 oz.) in the twenty-four hours.

Many animals on a flesh diet do not drink any water at all, and yet continue to pass fluid in far greater quantity than they can possibly receive with the food. In the winter of 1859, I kept six dogs during three months solely on animal food (boiled tripe), during which time, notwithstanding that they received no water, the average quantity of urine daily passed by each was 186 c. c. (6 oz.) They never appeared to be thirsty, and when offered water refused to drink it. Here we have another illustration of the fact, that more liquid may be excreted by the kidneys than is taken into the stomach. From whence, then, does this liquid come? The dogs just spoken of were kept in a cool atmosphere, and there can be no doubt that the fluid was absorbed by the lungs. In a hot and dry atmosphere, the lungs would have exhaled instead of inhaled moisture, and the result would have been, that the animals would have required water.

3rd. *Influence of the Cutaneous and Pulmonary Exhalations.*—The more rapid the pulmonary and cutaneous exhalations, the less the amount of urine excreted. Hence, we invariably observe that, after much exercise, the urine is scanty, dark coloured, and of high specific gravity. It is sometimes, indeed, so concentrated, after profuse perspiration, that it irritates the urethra. This counterbalancing influence of skin, lungs, and kidneys is of the utmost value in the treatment of renal disease. In acute nephritis, for example, when the suppression of urine is the result of renal congestion, and the patient is too weak to stand active treatment, the simplest and safest way to relieve the kidneys is to induce free cutaneous perspiration. A hot air bath in such cases will often save the life of the patient. The perspiration, be it borne in mind, does not only carry off water, but many of the urinary solids, inorganic as well as organic. Normal sweat contains uric acid, urea, phosphates, and chlorides; and in disease, as I shall afterwards show you, even the insoluble oxalate of lime may be excreted by the perspiration in such quantity as to cover the skin with a white crystalline crust. It is, therefore, easy to understand how the cutaneous exhalation may replace for a time the renal function.

That the influence of the pulmonary exhalation is nearly of equal importance, is well illustrated by the effect of a

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—ED. *Med. Times and Gaz.*

(b) The French measures are, when once learned, so very much easier to calculate than the English, that they are now being generally adopted. 1 ounce = 31 cubic centimetres; 1 c. c. or 1 gramme = 15½ grains of distilled water.

(c) The largest quantity was passed after a cold bath, in consequence of the combined effects of absorption of water and suppressed transpiration.

(d) 100 parts of animal food contain on an average 15 per cent. of nitrogen; whereas the same amount of vegetable food contains only from 2 to 5 per cent.

(e) *Vide* "Budge's Physiology," sixth edition, p. 214.

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change of weather on the urinary excretion. All of you must have noticed that you pass much more urine in winter than in summer. In some cases, as much as double the amount of urine is voided in the cold as is passed in the hot season of the year, and this, to a certain extent, is independent of the cutaneous influence. The same remark is applicable to the kind of day: in a cold and damp day much more water is passed than in a warm and dry one, when the pulmonary exhalation is in full activity.

According to Wiederhold, (f) the lungs, like the kidneys and skin, excrete both organic and inorganic substances; for, on collecting a large quantity of expired air, and testing it with suitable reagents, he found that it contained chloride of sodium, uric acid, urate of soda, urea, and urate of ammonia.

4th. *The quantity of urine passed also depends, to a great extent, upon the time it is retained in the bladder;* for, during its sojourn there, its aqueous particles, and, according to Kaupp (g), even many of its solids, are continually being reabsorbed into the circulation. Any one can easily prove the first part of the proposition by making the following experiment upon himself. Let him resist a call to make water, and immediately proceed to take active exercise. In a very short time the inclination to micturate will pass away, and perhaps not return for an hour or two, when it will then be found that, instead of much, very little urine is voided, and that little is of a dark colour, and high specific gravity. In such a case, the water that was previously in the bladder must have been reabsorbed into the blood, and exhaled partly by the skin and partly by the lungs, and with it, no doubt, some of the volatile and more soluble of the urinary salts.

Since physiology has shown that the quantity of fluid present in the blood during health varies but slightly, and that this is in consequence of the renal secretion fluctuating in direct proportion to the increase or diminution of the pulmonary and cutaneous exhalations, the kidneys may, with perfect justice, be said to be the safety valves of the system, as they are assuredly the most important regulators of the amount of fluid present in the body.

5th. *Influence of the Stools.*—All that can be said on this point may be summed up in a few words. The greater the quantity of liquid passed from the bowels, the less is ejected from the bladder; so that, in cases of diarrhœa and dysentery, patients void much less urine than in a state of health.

6th. *Influence of Sex and Age.*—As a rule, males pass more urine than females, the proportion being about,—

Sex.	Urine in Twenty-four Hours. c. c.	oz.	c. c.	oz.
Men . . .	1000 =	32 to	2000 =	64
Women . .	800 =	26 ,,	1400 =	45

The influence of age is equally remarkable. Children, for their size (as Scherer first observed), pass proportionally more water than adults. I estimated the quantity of urine passed during four days by a girl aged eighteen months, and her mother aged twenty-seven years, and the result was, that the child passed 13 c. c. (0·42 oz.) for every pound of her weight, and the mother only 8 c. c. (0·26 oz.) for every pound of hers.

As age advances, the absolute, as well as relative, proportion of urine again diminishes. The amount of water passed by the kidneys appears, therefore, to be proportional to the metamorphosis of the tissues.

7th. *The Influence of Disease and Remedies.*—Disease greatly affects the quantity of the urine: in some few it is increased, as, for example, in polydipsia and diabetes; in others, it is diminished, as in cholera, fevers, and inflammatory affections. Remedies have also a very powerful effect on the amount of water excreted by the kidneys. We all know how diuretic some medicines are—spiritus ætheris nitrici, for example—while others have just the contrary effect. Mineral substances—such as iron and copper for instance—lessen the quantity of the urine, while cantharides and arsenic almost totally arrest its secretion.

In a carefully-observed case, I saw the citrate of quinine and iron in the space of twelve days reduce the quantity of urine from 2325 c. c. (75 oz.) to 1860 c. c. (60 oz.) in twenty-four hours; the specific gravity (1017) remaining the same.

Again, I have noticed in the same individual the quantity of urine still further reduced by means of conia from 1860 c. c. (60 oz.) to 1240 c. c. (40 oz.) in the space of twenty-two days; but in this case the specific gravity rose to 1027, as the quantity of water diminished.

In another case of confirmed polydipsia occurring in a man aged fifty-six, the one whose urine is now on the table, and which is still under observation, the urine has diminished 1240 c. c. (40 oz.) in the space of six days, during which time the patient has been taking the ammonio-citrate of iron in conjunction with quassia. The exact quantities of urine passed by this patient are,—

Date.	Quantity of Urine in Twenty-four Hours. c. c.	oz.	Specific gravity.
November 16 . .	4960 =	160	1010
November 22 . .	3720 =	120	1017

(f) *Deutsche Klinik*, No. 18.

(g) Kaupp found that when the urine is retained in the bladder the water is taken up most readily, then the phosphates, the chlorides, the sulphates, and, lastly, the urea.—(Parks, p. 108.)

ORIGINAL COMMUNICATIONS.

ON RUPTURE.

By JOHN WOOD, F.R.C.S.,
Demonstrator of Anatomy, King's College, London, and Assistant-Surgeon to the Hospital.

No. II.

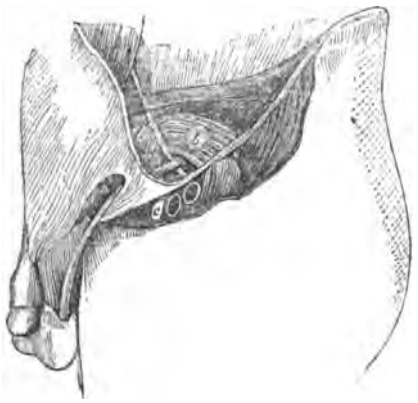
ALTHOUGH this is not the place for a description of the anatomy of hernia, yet, for the purpose of illustration, it is necessary to call attention to a few points in that of inguinal hernia, in order to point out its practical bearings.

The canal through which this rupture descends is formed between the muscular, tendinous, and fascial layers which retain the viscera at the groin. These are bound together and held firm by the important Poupart's ligament, a strong band of tendinous fibres reaching from the spine of the ilium to that of the pubis. In the male the distance it stretches over is from three to three and a-half inches, in the female, three and a-half to four and a-half inches. This structure is of equal importance to inguinal and crural ruptures, the former converging above, and the latter below it. Above, it is attached, in the male, to three muscles, to a strong aponeurosis covering them in front, and to a firm and close fascia clothing them behind. The muscles are the transversalis—the deepest, attached to the outer third of the ligament; the internal oblique—arising from the outer two-thirds or more; and the cremaster—arising from the inner half or third of the ligament. The aponeurosis is that of the external oblique, with which Poupart's ligament is so closely blended as to be identified with it. It is arranged in parallel fibres of great strength, which pass obliquely downwards, inwards, and forwards in a curve to the pubis and linea alba. These fibres are directed nearer to the perpendicular than those of Poupart's ligament. At the inner attachment of the latter, just above the pubic spine, they separate into an oblique, elongated, triangular opening, the superficial abdominal ring (Fig. 1, *a*) having a base of about half an inch at the pubis, the apex pointing upwards and outwards to the short ribs, and sides varying in length from an inch to an inch and a-half. These are the pillars of the ring. The inner or upper is broad and band-like, and attached below in an oblique line in front of the pubic symphisis, half an inch below its upper edge. The outer or lower is triangular, with its broadest part above, and its point below, where it is implanted upon the pubic spine and blended with Poupart's ligament. Passing from one pillar to the other, and converting the ring into an oval opening, is a band of curved fibres (arciform) connected by a fascia (intercolumnar). This band is much stronger in some individuals than in others, and may be traced from the iliac spine or outer end of Poupart's ligament to the linea alba, spreading out in curves with the convexity downwards. Upon the firmness, closeness, and resistance of this connexion of the two sides of the ring depends much of the resistance offered to the passage of a rupture through the ring.

The spermatic cord and its cremaster muscle when emerging through the ring lie upon and groove the outer pillar, to the outside of the pubic spine, and are invested by a prolongation of the intercolumnar fascia, from the edges of the ring (external spermatic). With very few exceptions all herniæ of the inguinal variety pass through the superficial ring. These exceptions are in cases where the resistance of the intercolumnar fascia at the ring is such, that the fibres composing either pillar are more easily split by the protrusion. Such ruptures usually are deficient in a covering corresponding to the intercolumnar. They are most frequently seen in females.

The firm fascia which covers the deep surface of the transversalis muscles (fascia transversalis) is connected firmly with Poupart's ligament, under which it sends a portion of the sheath of the femoral vessels. It intervenes between the muscles and the peritoneal structures. It is much the strongest in the groin. About half an inch above, and a little to the inside of the centre of Poupart's ligament, midway between the spines of the pubis and ilium, is an opening in this fascia for the passage of the spermatic cord in the male, and round ligament in the female (the deep or internal abdominal ring). Its distance from the superficial ring is about an inch and a-half in the male, and two inches or more in the female. It is larger in the former by about one half, varies much in size, but is usually an oval opening about three-quarters of an inch in its vertical, and half an inch in its transverse diameter. Its inner margin is falciform, being usually more distinct and pronounced than the outer, and when thickened by the friction of a hernia, it forms the most common seat of strangulation, and is apt to cause ulceration of the gut by its pressure. From the margins of the deep ring is given off a thin, funnel-shaped fascia over the cord (the infundibuliform, or fascia spermatica interna) of no practical importance. Lying between the fascia transversalis, from one-half to three-quarters of an inch from the inner margins of the deep ring, among the fatty fascia which immediately covers the peritoneam, are the deep epigastric vessels arising from the external iliae below and behind Poupart's ligament, and directed toward the umbilicus upwards and inwards. The artery thus lies to the inner side of the cord, or a rupture passing through the deep ring, and crosses its posterior face. On account of this relation, and of the size and importance of this artery in reference to an operation for a strangulated hernia, ruptures which pass through the deep ring have been called external. This variety, more generally known as oblique inguinal hernia, is by far the most common. It traverses both the abdominal rings and the inguinal canal in its whole length. The deep surface of the deep ring is covered by the peritoneum and its adipose layer. Both these are connected by a firm band of tissue to the margins of the ring, the remains of the serous tube forming the tunica vaginalis. The superficial surface is covered and protected by the lower fibres of the internal oblique muscle.—(See Fig. 1, *b*.)

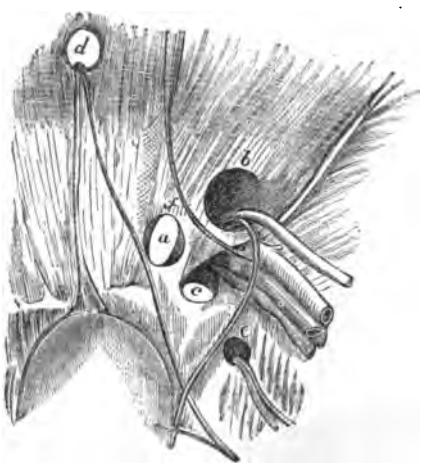
Fig. 1.



This muscle, passing obliquely over the inguinal canal by a distinct arched border, is inserted into the front surface of the transversalis tendon, at the inner side of the deep ring. This important conjoined tendon, placed behind the cord, and forming the most resisting part of the deep wall of the canal, is implanted upon the pubic crest and spine, and, passing behind the outer pillar of the superficial ring, becomes blended with the deeper fibres of Poupart's ligament, and inserted with them for an inch and a-half, upon the pectineal line of the pubis—forming the curved fibres which bound the inner side of the crural ring (Gimbernat's ligament). These are the most common seat of strangulation in femoral rupture. The conjoined tendon is blended externally with the fascia transversalis in front of the epigastric vessels, and internally with the aponeurosis of the external oblique, to form the front covering of the rectus and pyramidalis muscles. It varies much in power of resistance. In some persons it is composed of oblique scattered fibres attached to the crest and spine of the pubis only, and only distinguished from the fascia transversalis by a few separated tendinous fibres. In others it is dense and strong, presenting, when traction is made, a distinct border close up to the epigastric artery, or even to the deep ring. In many, especially in females, it is strengthened by the addition of a triangular layer of fibres passing upwards and inwards to the linea alba, and continuous by decussation with the external oblique aponeurosis of the opposite side. By this means the weak part at the outer border of the rectus, directly opposite to the superficial ring, is further supported (see Fig. 1, *a*). The conjoined tendon can always be raised into salient relief by passing the finger along the canal behind the internal oblique muscle, and making forward traction. The cremaster muscle is a layer of scattered and looped fibres, held together by a thin fascia derived from the internal oblique and transversalis muscles. They arise from the inner third or more of Poupart's ligament, connected both with the internal oblique and transversalis, and are inserted in three sets. The upper form complete loops over the cord, and passing through the superficial ring and back again, to be implanted upon the surface of the conjoined tendon. Others are lost in their containing fascia about the angle of the pubis. The lowest and outermost are attached to and lost upon the tunica vaginalis testis. They are of little importance except as a guide to the operator in strangulated oblique hernia, their muscular fibres indicating that he is close to the sac of the rupture, from which they are separated only by the thin infundibuliform and subperitoneal fasciæ. Occasionally they are said to cover a direct hernia in those cases which emerge close to the epigastric artery, with the conjoined tendon and its attached cremasteric fibres placed entirely to the inner side of the neck of the sac. The inguinal canal thus constituted is a passage oblique in three senses—from without inwards, from above downwards, and from behind forwards. The spermatic cord transverses it also obliquely, being placed further from Poupart's ligament at the deep than at the superficial ring. In Fig. 1, *b* is placed upon the site of the deep ring covered by the lower fibres of the internal oblique, and *a* upon the superficial ring, with the cord lying upon its outer pillar external to the pubic spine. Behind the cord is seen the conjoined tendon and triangular aponeurosis, epigastric artery, and fascia transversalis; in front of it, the outer pillar of the superficial ring and lower fibres of the internal oblique; above, the arched border of this muscle and the transversalis; and below, Poupart's ligament crossing the external iliac vessels, the crural ring (*e*), and the psoas and iliacus muscles, seen in section.

Now, an oblique inguinal hernia, following closely the course of the cord and lying in front of and above it, is invested with all its coverings in order. Of these, the cremasteric fibres are the most conspicuous, and occupy an intermediate position. The epigastric vessels cross behind it, and are placed internal to its neck. Fig. 2 represents

Fig. 2.



the relative positions of the deeper openings of oblique (*b*) and direct (*a*) inguinal, crural (*c*), umbilical (*d*), and obturator (*e*) hernia. Direct inguinal rupture makes its way through the conjoined tendon (*f*), at a point directly opposite to the superficial ring (seen through the opening at *a*). It is consequently inside and below the epigastric artery, and just above the pubic spine. The neck of the sac is usually placed between the epigastric and obliterated hypogastric arteries at the

border of the rectus muscle (triangle of Hesselbach); but sometimes it is found inside the obliterated hypogastric, carrying the loose superior false ligament of the bladder before it as its sac. It generally pushes before its sac a pouch of the conjoined tendon, but often splits its fibres, and is then covered only by the fascia transversalis, the intercolumnar, and the tegumentary tissues. It may be distinguished by the finger from oblique rupture by the absence of the sharp edge of the conjoined tendon and epigastric vessels at its inner side, which is bounded only by the thick, smooth border of the rectus muscle (seen in the figure inside *f*). If the finger cannot be introduced into the opening, its more direct cropping out of the superficial ring, close above the pubis, without any appearance of following the oblique course of the spermatic canal, will usually distinguish it. But in very large cases of the oblique variety the two rings may be so much approximated, the epigastric vessels dragged inward, and the conjoined tendon obliterated in the coverings of the sac, that distinction becomes difficult, if not impossible, without dissection. In such cases, when relieving strangulation by operation, the epigastric artery may be avoided by cutting directly upwards. It will now be seen that the influence of Poupart's ligament on all these structures is very great As relaxation of this ligament predisposes to both inguinal and crural rupture, so it facilitates much the reduction of either kind of hernia when strangulated. To relax it, the knees should be drawn together and bent upwards towards the abdomen. Also, no truss pressure will be effective unless it includes this structure in its influence. It will be seen, moreover, that the inguinal canal is a valvular passage, of which the most important part is the hinder wall of conjoined tendon and fascia, which normally pressed toward the front wall by the viscera, tends to keep the passage closed. Failure of this valve action at the deep opening brings about oblique rupture; weakness or injury of its hinder wall produces direct hernia. When a rupture is present, to close this valve permanently is to produce a radical cure; to close it temporarily is the end of effective truss pressure. In another paper we shall examine how this may be done, and how failure or an increase of the size of the rupture commonly results from inattention to the mechanism of these parts.

CASE OF

CEREBRAL DISEASE, APPARENTLY TUBERCULAR MENINGITIS—RECOVERY.

By ARTHUR LEARED, M.D., M.R.I.A.,
Physician to the Great Northern Hospital.

In April, 1862, I was called to see, in consultation with Mr. Wright, of N. Brixton, a young gentleman who was suffering from an affection of the brain. He was a delicate boy, 14 years of age, and had been long subject to glandular swellings in the neck. He lost a sister at the age of 8 years, from tubercular meningitis, according to the late Dr. Golding Bird and Mr. Wright, who attended her.

It was observed for some weeks that the boy's memory was deficient; he said himself that his thoughts came slowly, so that it cost an effort to reply to a question, and he imagined that "the ciphering at school had tired his head."

On April 9, six days before our visit, he returned from school complaining of a good deal of fatigue.

At one o'clock on the following morning, he was seized with a convulsive fit. During the day, Mr. Wright gave him aperient medicines, and he was so far recovered by the second day afterwards (12th), that he went to school for a short time, but sat with the books before him, unable to learn his lessons. That evening, about six o'clock, he had another bad fit.

Throughout the next day (13th) he continued poorly, and about mid-day was very faint, and had a shivering attack, but no fit.

On the 14th he was confined to bed, and vomited, and at six o'clock he had a bad convulsive fit for the third time. His mother described these attacks as differing from epilepsy in the movements, being less violent, and there being no frothing at the mouth.

I saw him for the first time on the evening of the 15th. There had been no convulsions during the day, and he was lying in bed apparently collected in mind, but said it was a trouble to him to reply to us. He complained of vertical headache, and the scalp over the vertex was increased in heat. Elsewhere the skin was dry, but the temperature was not high. Eyes natural, and pulse undisturbed. The tongue had a white, creamy coating. I agreed with Mr. Wright in considering the case one of tubercular meningitis.

16th.—Had a convulsive fit at 6 p.m., and partial convulsive movements for hours.

17th.—Another convulsive attack at one o'clock this morning. We found him, at our visit (3 p.m.), in a comatose state, so that we could not rouse him; the thumb of the left hand was contracted across its palm. He recovered from this after a short time, and the thumb now relaxed. He replied correctly to questions, and said he was free from headache; pupils movable; tongue much coated; pulse 72 in the minute, but much increased by even slight movements of the body. I suggested to-day, that, in addition to the cold lotions to the forehead, his head should be shaved, and the tinct. iod. comp. should be freely applied to the scalp.

18th.—At times comatose, and squinting occasionally observed.

19th.—Several attacks, in which face was convulsed about a minute each time. Skin moist; pulse varying from 56 to 120 in the minute, within a few minutes, independently of exertion. Tongue very foul. The internal treatment has consisted up to this in attention to nutrition, to the bowels, and in giving saline diaphoretics. Iodide of potassium, gr. v., every six hours, was now prescribed,—the scalp to be painted as often as could be borne.

21st.—No convulsive movements observed yesterday or to-day; but on several occasions on both days the eyes have become fixed, pupils dilated, and he has been apparently unconscious. This state lasts only a few minutes. No sleep last night; says his head is free from pain or uneasiness. Bleeding from the nose occurred twice to-day. Iod. pot., gr. v., 4tis hôris.

23rd.—Two or three slight fits of unconsciousness since; in other respects doing well.

25th.—A slight fit of unconsciousness yesterday; none to-day. Begins to feel appetite. Adde mist. liq. chincon., mxv.; ol. morrhuæ, ʒj., bis in die.

28th.—Going on well; no fits since; much reduced in flesh; discharge from nose, evidently the effect of iod. pot. Iod. pot. to be reduced to gr. ijss. pro dosi.

May 1.—No bad symptom remaining. Iod. pot. gr. ijss. 6tis hôris. The application of iodine to head to be continued as before.

The iodine treatment was continued some time. The patient gradually recovered strength, and is at the present time, December, 1863, in the enjoyment of excellent health. His intellectual faculties are perfect, and his proficiency at school is quite satisfactory.

Remarks.—Practical men will admit the diagnosis of tubercular meningitis to have been fully warranted by the symptoms and history of the case. Fortunately, the opportunity almost invariably afforded of confirming the diagnosis after the death of the patient was wanting. The patient's sister had been treated with mercury, and leeches to the shaven head, as has been said, with a fatal result. Having some time previously treated a case of hydrocephalous successfully with iodine, it seemed to me legitimate to give the same remedy a fair trial in the present case, and in this Mr. Wright concurred. We also took care to support the patient's strength by freshly prepared extract of beef and other concentrated nutriment, and wine was cautiously given when the vital powers were flagging. Recovery, from a condition that seemed hopeless, ensued, and it is a fair inference that the iodine was the efficient agent in effecting this. There are good reasons for believing that tubercular exudation is, in many cases, thrown out within a very short period of time, and that the absorbent action of iodine may, therefore, remove the deposit while yet in a semi-fluid or nascent condition. Tubercular disease of the meninges is very constantly, but not invariably, associated with tubercles in the lungs; and the present case appears an exception, as the boy is quite free from phthisical symptoms. The case is encouraging, as showing that we ought not to despair of recovery even when the evidence from vital symptoms of tubercular meningitis is very strong.

12, Old Burlington-street.

A SERVANT girl, aged 19, lately in service in Hyde-park-gardens, has died, after a four months' illness, occasioned by a fright; a nursery governess having thoughtlessly dressed herself up as a ghost, and sprung out upon her on the stairs.—*The Guardian*, January 27.

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REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

BIRMINGHAM GENERAL DISPENSARY.

CASES OF DIPHTHERICAL PARALYSIS.

(Under the care of, and reported by, Dr. WADE.)

Case 1.—Diphtheria—Imperfect Convalescence, interrupted by Kidney Disorder, followed by Paralysis—Cure.

C. P., aged 24, married, was sent to me, by a Surgeon, as a case of stricture of the œsophagus, on March 1, 1860. Has had four children; is still suckling the youngest, aged 9 months. Has had good health, and was as well as usual till twelve weeks ago. Was seized suddenly one Sunday night with shivering and a "feeling of weakness all over," and vomiting; the next morning found slight but distinct sore throat and pain in swallowing, with hot skin, much thirst, and headache. Had no advice till the following Friday, by which time the febrile symptoms had gone, but the throat was worse. On the third day of her illness the right side of the neck swelled much after friction with hartshorn and oil; the left side was also swelled, but not so much. In two weeks she got better, but still kept her bed; her voice was not nasal, nor did food return through her nose, and the urine was copious; the throat never got quite well. By the end of the third week from the time she first had advice, she was able to get about and do her washing, etc., but never felt strong. This went on for two weeks more, when she was again seized with fever, but less severe than at first, with great diminution in the quantity of urine, frequent and painful micturition, and pain across the loins; no dropsy; throat got no worse. The same Surgeon attended her again for a fortnight, and she was better in all respects for the following two weeks. She then began to be aware of a difficulty in swallowing, but without any soreness in the throat; her voice became nasal, and food used to return through her nose; a feeling of obstruction in the œsophagus at its top part, and indistinctness of vision. All these symptoms have been getting worse up to the time of her applying to me. She consulted another Surgeon, who sent her to me. She has all the symptoms above detailed, and cannot see to thread a darning-needle; has flashes of light, but no pain, in the eyeball; no photophobia; pupils very large; thinks she can see rather better towards night, but the quantity of light has no effect upon vision. She has also numbness in the hands, legs, and feet; arms and legs feeble, and gait tottering; all food returns through the nose, unless she "takes time" to swallow it; can manage solid food best; coughs a good deal, but there are no abnormal physical signs in the chest; never had any discharge from nose. Throat rather congested; tonsils not enlarged; velum palati and pharynx insensible. Urine: lithic acid cylinders, lithate of ammonia; bladder epithelium; quantity obtained not sufficient to take specific gravity; no albumen; quantity stated to be nearly average. Prolabia good colour; face dingy and pale. Her husband is a sweep, but she says that a brownish hue on the face has only been observable since she has "been so very ill." Bowels rather confined; had two blisters on the throat, three weeks ago, without benefit. No one else in the house has had sore throat; but one child had scarlatina a year ago, and his throat has been sore at times since. There seems to be a little tenderness on each side of the thyroid cartilage. ℞. Liq. hydr. bichlorid., ʒiv.; decoct. cinchon., ʒvijss.; ʒj. ter. die. Pil. colo. c. hyos. (āā p. æ.), gr. x., pro re nâta.

5th.—Scarcely speaks at all through her nose; swallows solids much better, fluids no better; eyesight a little stronger; fauces less congested; urine reported clearer; hands and feet no better.

8th.—Throat has felt a little sore; no increased difficulty in swallowing.

12th.—Sight much better; voice ditto; swallowing ditto; the numbness continues; feels rather more power in the hands; complains of constant pricking pains darting through her fingers and toes; a little, also, but much less in arms and legs; these latter were much cramped three days ago.

19th.—Much better in nearly all respects; eyesight quite well; pupils not so large as at first note; voice very nearly well; swallowing still imperfect; prickling no better, but has more use in hands, feet, etc.

26th.—Eyes keep well; swallowing much better.

April 2.—Pains in each wrist, especially right; fingers still weak; swallowing much better; occasional dimness of vision. ℞. Potass. iod., ϑij.; aquæ, ʒviij.; ʒj. ter. die.

9th.—Not so well with this medicine as with the former one, which repeat.

23rd.—Occasional numbness of hands and cramping of toes, but is better.

May 10.—"Is as well as ever she was in her life," except occasional cramps and numbness of toes. She ceased to attend the Dispensary. I saw her about a year ago, and found that the cure was permanent.

The history of this patient before she came under my notice and the symptoms which I myself observed, taken in conjunction with the ascertained phenomena of diphtherical paralysis, leave no reasonable ground for disputing that this is an example of that form of disease.

Case 2.—Diphtheria, untreated—Imperfect Convalescence—Recurrent Slight Exudation—Paralysis—Intercurrent Kidney Disorder, with Albuminous Urine—Cerebral Symptoms—Cure.

Elizabeth S., aged 11, admitted March 19, 1858. Six weeks ago began to complain of painful lumps on each side of the neck, and, after the first few days, some pain in swallowing. Her mother rubbed the lumps with goose oil, and they disappeared. The mother states that she had rigors two or three days after the neck began to swell, and there was fever from the first. On the second day after her neck began to swell, her breath stank horribly. No delirium was noticed. The illness commenced with vomiting, and she was then purged with senna tea. No eruption was ever noticed. In a week or nine days from commencement of illness, the fever disappeared after a perspiration, and her breath got sweet; the lumps also vanished, but she continued to look pale and ill, and did not gain strength. Her voice became nasal before the fever went away, but her mother does not exactly know the time. She continued to get feebler, and the voice to get worse. Dysphagia came on; no fever. I saw her on the 19th; she had not had any Medical advice previously. No eruption had ever been noticed. There was no exudation on the throat; it was not unnaturally red; the uvula seemed long and pendulous; the soft palate seemed to hang lower down than usual; countenance depressed, looks pale and feeble; voice very nasal; great difficulty, but not pain, in swallowing; appetite indifferent; functions generally pretty well performed. Urine boiled in a spoon did not appear to contain albumen; it was clear and pale. I ordered her to come to the Dispensary on the 22nd.

On the 20th her mother got frightened, and took her to Mr. Robins, who sent her to me. Throat a little redder than before; one spot of exudation on the right tonsil, apparently projecting from a follicle. ℞. Syr. ferri iodid., ʒiv.; acid. citric., gr. x.; inf. quassiæ, ʒvijss.; m. ft. mist., ʒj., ter. die sumend.

25th.—Not so well; is heavy, but not actually drowsy. Urine much less copious. I obtained only about two drachms for examination, and found it highly albuminous. Omit mist. ferri iodid. ℞. Potass. iod., ϑj.; potass. acetat., ʒij.; syrup., ʒss.; aquæ, ʒvijss.; m. ft. mist., ʒj., 4tis hôris sumend., and to take freely of fluids.

27th.—Had an attack of delirium about dinner-time yesterday, which lasted for half-an-hour. Is better to-day. Urine not albuminous in a spoon. I could not ascertain if it was more copious: it is pale and pretty clear. I learn to-day, for the first time, that her eyesight is hazy, indistinct, confused, and has been so for a month. No diplopia, photophobia, dilatation of pupils, or squinting. Bowels confined. Has taken pil. colo. et hyosc. since the 25th without result. To have some senna tea. Has taken the medicine three times a-day only.

29th.—Reported better. Has drunk more freely and taken the medicine more regularly, and made a larger quantity of water,—pale, pretty clear, specific gravity 1010; no tube casts or epithelium; a small quantity of albumen detected by boiling in a test-tube. No return of delirium; bowels regular; appetite improved.

April 1.—Better. Urine more copious; specific gravity, 1015. Swallows better; voice less nasal. Has not lain in bed any of the time. Pergat.

3rd.—Was drowsy yesterday, but to-day is better. Urine reported about Ojss. daily. This morning on each tonsil are

several spots, apparently of lymph exuded from follicles; they do not spread over adjacent mucous membrane. Voice and swallowing a little better.

5th.—Reported about the same.

7th.—Throat less red, and scarce any exudation; no more drowsiness.

8th.—Urine more copious, 1010; no albumen; slightly alkaline.

12th.—Reported better. A small quantity of urine brought down to the Dispensary was turbid, but appeared free from albumen.

14th.—Continues to improve; looks bright, and good colour; eyes and voice better; and can swallow pretty well.

15th.—Urine free from albumen.

May 10.—Sight, voice, appetite, and swallowing perfectly normal; complains of weakness, and looks pale. Urine copious, but none brought for examination. ℞. Tr. ferri mur., ʒj.; inf. quassiæ, ʒiv.; m. ft. haust., ʒss., ter. die. sumend. Tonsils still a little enlarged, but no exudation.

20th.—Voice appeared to me a little nasal, but she and her mother say that it is normal; and she says she is well in all respects, but does not feel very strong. She looks very well.

I saw her about twelve months after, and she had continued well; her voice was a little nasal, but this, I fancy, is natural to her.

Some other bad cases of diphtheria occurred in this house afterwards.

HOSPITAL FOR EPILEPSY AND PARALYSIS.

CLINICAL REMARKS ON HEMIPLEGIA, WITH LOSS OF SPEECH—ITS ASSOCIATION WITH VALVULAR DISEASE OF THE HEART.

(Cases under the care of Dr. HUGHLINGS JACKSON.)

At a recent visit to the Hospital for Epilepsy and Paralysis, Dr. Hughlings Jackson remarked that in nearly all the cases of loss of speech that he had seen at that Hospital there had been hemiplegia. At first he was inclined to adopt the theory brought forward by Schrœder van der Kolk, that such a defect depended on disease of the corpora olivaria. But then, as was frequently pointed out at this Hospital by Dr. Brown-Séquard, the defect is not one of talking, but rather of language. Besides, Mr. Lockhart Clarke differs altogether from Schrœder van der Kolk. He thinks that the corpora olivaria form a sort of internuncial nervous system to the various ganglia of the medulla oblongata.(a) In some extreme cases Dr. Brown-Séquard used to point out that the patient had lost altogether the power of expression, not by oral language only, but even by making signs. One patient who was admitted into the Hospital, during the whole of his stay could only say "no" and "yes," and these words at the wrong time. He said "no" when he meant "yes," and "yes" when he meant "no." He could write, and used to copy paragraphs from the newspapers, but he never answered a question in writing. This is the worst case Dr. Hughlings Jackson had seen; but there was every gradation, down to the simplest mistake in words which have some idea in common, as calling an "orange" an "onion," or "cough medicine" a "worm powder."

In most cases of hemiplegia, there is some defect of talking; but this is generally from defective power in moving the tongue and lips, and is as different from loss of speech as want of power to sing from disease of the vocal cords, is from want of what is conventionally called "ear for music." Loss of speech cannot be too carefully distinguished from loss of power of articulation. To say that a person speaks ill because he cannot articulate well, is correct conventionally, but scientifically it is as inexact as the excuse a person once gave for errors in spelling—viz., that the pen he wrote with was a bad one. But it must be remarked, that when a patient has once lost the faculty of speech, on recovery he talks like a child. Then his articulation is imperfect as well as his words erroneous. And, of course, in all the cases the subjects of these remarks, so long as the hemiplegia lasts, there is some defect of articulation superadded on the defect of speech. But the defect of articulation in ordinary cases of hemiplegia soon passes off.

Recently it occurred to him, that in all the cases of this kind that he had seen (seven), there was valvular disease of the heart; but he has since found three exceptions. Of course, there is no physiological connection betwixt disease of the aortic or mitral valves and paralysis on *one* side of the body. The clinical history of a disease is not its natural history. But the coincidence is, probably, to be explained in this way,—that, as is well known, vegetations may be detached from the diseased valves, and plug up the middle (and anterior?) cerebral arteries. The heart affection in two cases only has been the subject of previous treatment, as vegetations may cause a loud bruit, and but slight obstruction. It is, then, not so much a question as to the fitting of the valves as to the vegetations on them. Indeed, there may be vegetations and no bruit; and in this way, perhaps, some of the apparently exceptional cases may be explained. In short, the connexion is a mechanical one. The paralysis does not occur because the patient has heart disease, but because a vegetation is accidentally detached from one of its valves. This middle cerebral artery supplies the corpus striatum (the upper part of the motor tract, disease of which so often produces hemiplegia), and also part of the hemisphere. We have, then, paralysis of motion, as evidenced by the hemiplegia, and defect of mind, as shown by loss of speech. Many physiologists and Physicians have considered the anterior lobes to be the part of the brain in which resides the faculty of speech, and Dr. Kirkes long ago pointed out that in heart disease hemiplegia from plugging of the middle cerebral artery was not uncommon. The little novelty, then, in these remarks is merely the clinical illustration of the coincidence of the two defects from obstruction to the circulation to the hemisphere and the motor tract. Now, whether this explanation be correct or not, Dr. Hughlings Jackson insists on the coarse fact, that hemiplegia, with loss of the faculty of speech, often occurs in patients who have valvular disease of the heart. The fact that many of these patients are young, and, except for the diseased valves, in excellent health, or rather, having healthy tissues, is in favour of embolism; and the fact, too, that the hemiplegia is of the same kind as that so often found after apoplexy of the corpus striatum, seems to confirm the view that it depends on plugging of the middle cerebral artery, which, by branches near its origin, supplies this part of the brain, as well as part of the anterior and middle lobes by its continued trunk. But he draws attention to the fact that his cases are chronic, and that he has seen very little of recent cases, so that his experience may be one-sided.

It had been objected that the word "speech" did not accurately express the defect; but, perhaps, it might be allowed to pass, as the object Dr. Jackson had then in view was to discuss the clinical relationship of the symptoms, and not their psychological bearings. Indeed, neither the word "speech", nor the word "language" would do for all the cases. Talking may be divided into three things—articulation (larynx, voice, tongue, lips, etc.) for sounds, speech for words, language for the expression of ideas. The mind, then, forms the ideas, the memory furnishes the words, and the tongue, lips, etc., turn them out as certain recognised sounds. To illustrate, a man born deaf cannot talk, as he cannot learn to articulate sounds. A person who has lost memory talks badly, as he has forgotten the words with which he was wont to dress his ideas; and the person who lacks language talks badly, or does not talk at all, because he has not mind enough to form ideas to express. When the defect begins in language, it would imply, Dr. Jackson thinks, general loss of power of mind, so that a person cannot express himself either by talking, writing, or by signs. When in speech he forms ideas, but his memory cannot find the words for them, and he returns to the primeval language of signs; when his tongue, larynx, etc., are paralysed, he cannot talk well, as the apparatus is defective—in short, defect of ideas, defect of words, defect of sounds. In thus entering minutely into these differences, Dr. Jackson said he did not attempt to claim any great amount of precision. The subject was to him far too obscure to induce him to dogmatise.

(a) "I have never been able to trace any immediate connexion between the cells of the lamina and the roots of the nerves—not even of the hypoglossal nerves which pass through it."—Lockhart Clarke, *Phil. Trans.*, 1858.

HOSPITAL NOTES.

TREATMENT OF DYSENTERY BY LARGE DOSES OF IPECACUANHA.

This plan of treatment was introduced, or brought prominently forward, by Dr. Docker, of Mauritius. The use of ipecacuanha in dysentery is by no means novel; but the employment of such large doses, and in the method here described, is (Dr. Hillier said) of comparatively recent date.

The plan is to give a drachm of tincture of opium, to apply

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a mustard plaster over the epigastrium, and, in twenty minutes, to give a drachm or a drachm and a-half of powdered ipecacuanha in a very small quantity of peppermint water, or simple water. Sometimes half an ounce or an ounce of castor oil is given, with half a drachm of laudanum, before beginning the special treatment; this is, however, usually found to be unnecessary. Vomiting is not often induced, and the cure is often immediate. A patient may be passing every half hour or oftener, blood and mucus, or bloody serum with pus. They cease at once for about twenty-four hours; he then has a natural stool, and is well. The diet is farinaceous.

In May, 1862, Mr. Baylis, of Ceylon, wrote to Dr. Hillier that he had treated fifty or sixty cases in this way, and only lost three, who were in articulo mortis when they came under his care. He writes that he has continued the plan of treatment up to the present time, and expresses himself equally satisfied with it. He gives the following as an illustration of the results of this treatment:—

"A highly phthisical young gentleman, in whose lungs softening had commenced, came out here for his health. I told him the climate would not suit him. However, he disregarded my advice, and I was soon called to see him. I found him in bed, unable to speak above a whisper; pulse very weak, about 100; face flushed; tongue thickly coated with yellow fur; tenderness and pain in abdomen, especially in the left iliac region. He had been suffering from diarrhœa for four days. During that day and previous night he had passed upwards of sixty motions; they were at first copiously feculent, latterly, almost pure blood, with a little slime. He had been feeding most imprudently. I gave him at once a drachm of laudanum, and put a mustard plaster on his epigastrium. In twenty minutes I gave a drachm of ipecacuanha powder in a wineglass of water. He did not vomit. Those who saw him at this time thought he could not live twenty-four hours. Next morning he was much the same; had fainted once or twice on going to stool, but had only passed seven motions, composed of blood and stuff like the washings of meat. He now had much pain in the stomach and bowels. I ordered an opiate injection three times a-day, and at 6 p.m. put on a blister and repeated the laudanum, followed by the ipecacuanha, as on the previous day. Next day he passed only two motions; there was just a trace of blood, but they were largely feculent. The morning after, the motions were solid and natural, and he rapidly recovered without more medicine. His diet was sago and arrowroot."

Dr. Hillier has had the opportunity of trying this mode of treatment at the Children's Hospital. It was in the case of a child, aged 4 years, suffering from subacute dysentery contracted in Barbadoes. He gave five minims of laudanum, and, in half an hour, fifteen grains of powdered ipecacuanha. There was no nausea or any unpleasant symptom caused by the medicine; and although the patient had previously passed five or six motions, containing much blood and mucus, every twenty-four hours, there was no evacuation for thirty-six hours. He then passed an ordinary feculent motion, and from that time he continued quite well. It is stated that ipecacuanha has the effect of rapidly healing large dysenteric ulcers. Dr. Hillier suggested that it might be worth while to try it in the diarrhœa dependent on tubercular ulceration, or in typhoid fever. The opium is supposed to act mainly in preventing vomiting, but it may, with ipecacuanha, have a more specific action on the disease.

BROMIDE OF AMMONIUM IN WHOOPING-COUGH.

This new therapeutical agent, which was some little time ago found by Dr. Gibb to be an anæsthetic to the larynx, is now being turned to further practical account in the treatment of whooping-cough. Every one knows how very intractable this disease is in the great majority of cases, as well as how frequently it is fatal when it assumes a grave form. Any remedy, therefore, that offers even a moderate chance of success ought to be welcomed by the Profession, and receive a fair trial. Within the last nine or twelve months, Dr. Harley has been treating nearly all the cases of whooping-cough brought under his care at University College Hospital by means of the bromide of ammonium, and the results of the treatment seem to be highly satisfactory. As a rule, the dose of the remedy is a grain for every year of the age. This rule is, however, not always adhered to. In cases where the children are well-developed and strong, Dr. Harley occasionally gives as much as double that dose—namely, two grains for every year of the child's age. The bromide (Dr. Harley says) apparently acts by simply removing the whoop, which is by far the most troublesome symptom, and after that has disappeared the case is treated as one of simple bronchitic cough. The remedy was at first administered by Dr. Harley with the view of inducing partial insensibility of the glottis, and thereby reducing, or even, if possible, altogether counteracting the spasm, as it appears to be the chief source of the child's misery. Bromide of potassium, which has a similar anæsthetic power over the pharynx and larynx, has also been used in whooping-cough by Dr. Radcliffe. The dose is about the same as that of the bromide of ammonium.

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Medical Times and Gazette.

SATURDAY, JANUARY 30.

IS TOWNLEY MAD?

"Nulli vendemus, nulli negabimus, aut differemus rectum vel justiciam."—*Magna Charta.*

"Though men believe that their reason governs words, it also happens that words retort and reflect their force upon the understanding."—*Novum Organum*, Aph. 22.

"No word in the English language is so vague as the word 'insanity.'"—*Baron Martin's Charge in Townley's Trial.*

"An acquittal on the plea of insanity is, on some occasions, a mere matter of accident."—*Taylor's Medical Jurisprudence.*

Explain it how we will, the public conscience has received a severe shock. This is not the first time that a wide-spread feeling has arisen that justice has miscarried. Such shocks are dangerous. If punishment is to serve as an example—if the "*pœna ad paucos*" is to prove the "*metus ad multos*," it should be, if not swift, as sure as human fallibility can make it. It may, indeed, be too swift—so swift that the public which it is intended to awe cannot aquiesce in its justice. An instance of this kind has just happened: a quiet, hard-working bricklayer, Samuel Wright, cohabited with a woman of very violent temper, who appears to have woke him in the middle of the night with the threat of running a knife into him. We do not know all the circumstances of the disturbance, but the end of it was that Wright killed her with a razor. He was not insane, although, if suddenly woke up from sound sleep, he might possibly not have been altogether fully cognisant of the crime which he was committing. He confessed the deed, and made no attempt to escape. This was on Sunday. On Monday, December 14, he was brought before a magistrate, and on Tuesday was arraigned for murder at the Central Criminal Court. Conscious that he had taken life, and ignorant of the distinction which the law makes between murder and manslaughter, the poor man honestly pleaded guilty, and declined the services of a counsel. Nothing was, therefore, left for the jury to do than to convict, and for the judge than to pronounce the sentence for murder. Subsequently, it appears that the prisoner stated that "he did not know the distinction between the crimes of manslaughter and wilful murder, and that, knowing the woman had died by his hands, he could not do otherwise than plead guilty, but that he meant thereby no more than to admit that he killed the woman in a fit of passion." Had more time been given him, then, for con-

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sideration, it is clear that he would have pleaded otherwise, and no one can positively tell what influence the arguments of his counsel might have had upon the tribunal that was to determine the nature of his crime. Wright's case called for public sympathy, and he had it. Never before, perhaps, was the Home Secretary more urgently pressed to extend the royal sceptre entrusted to his keeping by the gentle lady who, "*a lege suæ dignitatio*" alone, can pardon the deepest crime committed within her realm. Sir George Grey has commuted the sentence of death after more heinous crimes than Wright's, and for worse reasons than the highly indecent haste with which conviction followed upon the murder. Yet Wright was hung.

Fortunately for George Victor Townley, no such error was committed in his case. The defence set up by his counsel, Mr. Macaulay, was *insanity*. It was admitted that up to the moment of the murder no one suspected mental unsoundness, although the disease had prevailed on the mother's side; no objection had been raised on this score to his contracting a matrimonial engagement, nor did there appear to be any facts which would have justified his confinement in an asylum, or the issue of a commission "*de lunatico inquirendo*" for the preservation and care of his property. The counsel simply urged that the murder was "a terrible development of this dreadful and hereditary insanity," and that "he had lost all sense of right and wrong by the influence which had acted upon and overturned his mind." The main evidence in support of this excuse was that of Dr. Forbes Winslow, Mr. Gisborne (the Surgeon of the gaol), and Mr. Sims (the governor). The two former were to prove his insanity during his residence in the prison, and Mr. Sims that he was in the same state when admitted as at any subsequent period. But, as an excuse for crime, it is not enough simply to prove insanity. All legal authorities unite in this—viz., that a person is responsible unless he is so insane as to be incapable of distinguishing right from wrong, or rather, that the act he is committing is wrong. Of this, every sane man has an innate sense, quite irrespective of his belief in God, or of a future state of reward and punishment—quite irrespective of any religious creed whatsoever. It is this innate sense which the law holds as sufficient to impart responsibility. Nothing but its absence will impart irresponsibility. Were it otherwise, all that would be necessary to excuse murder would be an obstinate or ignorant, but consistent, denial of the existence of God, and of the moral obligation of his commandments. Still, it was this disbelief and its alleged consequences that Townley's counsel endeavoured to confound with the innate sense of right and wrong. Dr. Forbes Winslow, when put into the witness-box, described two interviews which he had with Townley before the trial, and in which the prisoner had expressed to him that he felt no remorse for what he had done; that he considered he was perfectly justified in what he did; that he considered Miss Goodwin as his own property; and that he had a perfect right to kill or do what he liked with her, just as he had a right to dispose of any other description of property. He said "he was not responsible to God or man for his opinions or actions; he did not create himself, neither was he brought into existence by an effort of his own will; he was free to think and act as he pleased, recognising his perfect irresponsibility in the sight of God and man." He also said, "he would have killed the clergyman who had estranged her affections from him." He said he had no idea of God; that he did not view himself as an accountable agent; did not believe the Bible, and that he was a fatalist, together with a good deal more in the same strain, in all of which he had been forestalled by a host of infidel writers, of whose *sanity*, however, no one has ever hazarded a shadow of a doubt. Dr. Winslow's conclusions as to the responsibility of the prisoner at the time of his visits are as follows:—"Although, properly speaking, he cannot be viewed as in an acute state of insanity, I am nevertheless of opinion that his mind is in a disordered condition; such mental alienation exhibiting itself principally in an inability to realise in a sane manner that he has committed a crime at all, in his attempt to justify his murderous act, and in the absence of all the natural and healthy feelings of regret, contrition, and remorse observed in the generality of persons similarly situated. His conduct exhibits a condition of mental derangement, associated with an inability to distinguish between right and wrong. In making this analysis of his mental condition, I cannot entirely ignore his openly avowed infidelity and scepticism." We should think not. Will not his adherence to these views fully explain his justification of his conduct, without dragging in any hypothesis which involves the idea of an absence of moral sense of right and wrong? Could he, indeed, have justified his own conduct as *right* if he had not also recognised Miss Goodwin's as *wrong*, and thus as deserving retribution—such retribution as he considered he had a right to dispense? Our readers can judge for themselves of the value of Mr. Gisborne's evidence after reading his extraordinary letter published in the *Times*. On that letter we commented last week, and shall not again refer to it except to observe, that, besides the pitiable state of oscillation it displays, it is evident that Mr. Gisborne entirely mistook his place. He was not about to go into the jury box, nor to sit upon the bench. But after all, as Baron Martin explained to the jury, the question was, whether Townley knew that he was doing wrong when he committed the murder. That he did was shown by his own words when he gave himself up, and expressed his conviction that he should be hanged for it. On this view he was convicted. The jury did not believe he was insane when he committed the murder, nor did the judge, nor do we.

But Townley's case was not yet hopeless. The law of England is, that if after judgment a man becomes *non compos mentis* "he shall not be ordered for execution; for *furiosus solo furore punitur*, and the law knows not but he might have offered some reason, if in his senses, to have stayed execution. It is, therefore, an invariable rule, when any time intervene between the attainder and the award of execution, to demand of the prisoner what he hath to allege why execution should not be awarded against him; and if he appears to be insane, the judge at his discretion may and ought to reprieve him." (Stephen's "Blackstone," vol. iv., p. 554.) In this case the judge evidently did not consider that he did appear insane, or he would have reprieved him there and then; but in view of the evidence of Dr. Winslow and Mr. Gisborne, he wrote to Sir George Grey suggesting the propriety of a further inquiry. "I cannot say," he writes, "that I have formed any decided opinion upon the point." Townley was convicted on December 12, and *the question was whether he was insane on the 13th and subsequently*. For it is to be observed that the prior insanity—that is, between August 21 and December 12—if it existed, had nothing to do with the question. The jury decided he was not insane when the murder was committed, and insanity was not adduced by his counsel as a bar to the trial, as it would have been most assuredly, could the plea have been sustained before a jury. For, "by common law, if a man in his sound memory commits a capital offence, and before arraignment for it he becomes mad, he ought not to be arraigned for it, because he is not able to plead to it with that advice and caution that he ought. And if, after he has pleaded, the prisoner becomes mad, he shall not be tried; for how can he make his defence? If, after he be tried and found guilty, he loses his senses before judgment, judgment shall not be pronounced." (Stephen's "Blackstone," vol. iv., p. 110.) On receiving the letter of Baron Martin, Sir George Grey accordingly dispatched three Commissioners in Lunacy to Derby, charging them to report to him for information "whether or not the prisoner is at the present time of unsound mind." The report of these experienced gentlemen, which we noticed last week, concluded thus:—"Being of opinion, therefore, that the prisoner continues to be now in the same mental state as when he committed the murder and underwent his trial, we think that, applying the law as laid down by Mr. Baron Martin to

this case, the prisoner, George Victor Townley, was justly convicted."

Although this was not an opinion on the point on which Sir George Grey asked for information, it sufficiently decides the question of Townley's present insanity, so far as execution of his sentence is concerned, the jury having settled that his peculiar religious notions did not involve irresponsibility for the murder, and his own counsel having regarded him sane enough to plead at his trial and to receive judgment after conviction. If we put this argument syllogistically, the conclusion is self-evident.

Sir George Grey seems, from his last letter to the Derby magistrates, to have felt completely the force of this kind of reasoning. After telling them that he was not called upon to act upon the report of the Commissioners alone, he says that, "Had he been so, although the Commissioners say that, for reasons set forth in their report, they could not consider Townley to be of sound mind, Sir George Grey yet would not have felt justified, from the general tenor of the report, in assuming that his unsoundness of mind was such as to exempt him from the penal consequence of an act for which, according to the law as laid down by the learned judge, he was legally responsible." But, as matters turned out, Sir George Grey was not permitted to use his judgment upon the merits of the case, as he would have been by the common law, for the whole thing was taken out of his hands by the friends of the murderer, who routed up an Act of Parliament, passed in 1840, by which it is provided that it shall be lawful for the Secretary of State to remove any person who appears to be insane (even if under sentence of death) to Bethlehem Hospital, on his insanity being simply certified to him by two justices of the peace and two Medical men. The Secretary of State, indeed, is not bound to act thus, but we can very well understand that there are few men in his unenviable position who would not act upon the permission, rather than incur the odium of refusal. He says himself,—"Upon these certificates from four justices of the peace and two Medical Practitioners, the prisoner, in accordance with the construction which has been uniformly placed on the section of the Act before-mentioned, was ordered to be removed to Bethlehem Hospital, the capital sentence being respited, but not commuted." It is a hard thing to say that justice has been thus defrauded by a quibble; but that it has been defrauded by the means of the statute-book which is intended to maintain it, we ourselves have no doubt whatsoever. Again we ask—"Is Townley mad?" If he is, then let him be taken care of like other insane felons; but the public are not yet assured of it, nor are we. If he is not mad, the statute under which he has been removed to Bethlehem, and which we quote below,(a) indicates also the method of settling the question, as well as the duty of the Home Secretary. Capital punishment may not be the proper means of preventing the commission of murders, but no one can live in the anticipation of safety when the punishment which the law awards can so easily be avoided as it has been in the case of Townley.

(a) This Act is so short and so little known, that we may reprint it here in its entirety. "3 and 4 Vict., c. liv.—An Act for making further Provision for the Confinement and Maintenance of Insane Prisoners—That if any person, while imprisoned in any prison or other place of confinement, under sentence of death, transportation, or imprisonment, or under a charge of any offence, or for not finding bail for good behaviour, or to keep the peace, or to answer a criminal charge, or in consequence of any summary conviction or order by any Justice or Justices of the Peace, or under any other than civil process, shall appear to be insane, it shall be lawful for any two Justices of the Peace of the county, city, or borough, or place where such person is imprisoned, to inquire, with the aid of two Physicians or Surgeons, as to the insanity of such person; and if it shall be duly certified by such Justices and such Physicians and Surgeons that such person is insane, it shall be lawful for one of her Majesty's principal Secretaries of State, upon receipt of such certificate, to direct, by warrant under his hand, that such person shall be removed to such County Lunatic Asylum or other proper receptacle for insane persons as the said Secretary of State may judge proper and appoint; and every person so removed under this Act, or already removed, or in custody under any former Act relating to insane prisoners, shall remain under confinement in such County Asylum or other proper receptacle as aforesaid, or in any other County Lunatic Asylum or other proper receptacle to which such person may be removed, or may have been already removed, or in which he may have been in custody by virtue of any like order, until it shall be duly certified to one of her Majesty's principal Secretaries of State by two Physicians or Surgeons that such person has become of sound mind; whereupon the said Secretary of State is authorised, if such person shall still remain subject to be continued in custody, to issue his warrant to the keeper or other person having the care of any such asylum or receptacle as aforesaid, directing that such person shall be removed back from thence to the prison or other place of confinement from whence he or she shall have been taken, or, if the period of imprisonment or custody of such person shall have expired, that he or she shall be discharged."

HOW TO PRESCRIBE AND HOW TO WEIGH IN GRAINS.

Although the toils of practice have compelled us, as they have most of our readers, to look upon chemical manipulation as a thing only to be taken up on some rare occasions, yet, sitting with a good balance and set of accurate grain weights in our study, we cannot help wondering why so many who prescribe and dispense, and why the Medical Council which issues regulations for both processes, should prefer an intricate and obscure system of weights to one that is simple and obvious at first sight to every one.

In our present remarks we confine ourselves to dispensing and prescribing; as for manufacturing, that is no business of the Practitioner. The Medical Council have thought fit to give formulæ for the manufacture of drugs on the large scale, which manufacturers may laugh at or adopt as they please; and for processes such as these, the pound, with its even binary divisions of half, quarter, eighth, etc., and the ounce, with similar divisions, may be convenient and sufficient.

But we do not prescribe pounds or ounces for our patients. *The real unit* for this purpose *is the grain*. Every one who prescribes knows how many grains or fractions of grains he wishes the patient to take; and whether he direct one dose or many to be made up, the necessary calculation is trivial, and involves no difficulty whatever. And it is far easier to write down any given number of grains at once, than it is to first reduce them to drachms or fractions of drachms or scruples.

It will be more convenient under this new system to use Arabic numerals than Roman. Most of us now write in English the directions how medicines are to be taken. We have done so, since a chemist's lad once translated "cyath. vin. aquæ," as "a glass of wine and water." The substitution of the Arabic numeral will be but one step towards abolishing Latin altogether, a thing which, however regretted, is inevitable.

Prescriptions are already half English. When we see "grs. xx.," we are fain to advise the prescriber not to jumble Latin and English together in one phrase, but to choose whichever of the two tongues he understands best, and write wholly in that.

Suppose, then, we wish to write a prescription for eight doses, each containing eight grains of carbonate of ammonia, ten of bicarbonate of potass, and fifteen of nitrate of potass—

℞. Ammoniæ carb., gr. 64; potassæ bicarb., gr. 80; potassæ nitratis, gr. 120; aq. destillatæ, fl. oz. 8; m. ft. Mist.

Sig.—"One fluid ounce by measure to be taken every four hours, with half a fluid ounce of lemon-juice, and the same of water."

Such a mode of prescribing quantities would answer every purpose. There could be nothing gained by writing "gr. lxiv.," nor yet "ʒj. et gr. iv.," instead of "gr. 64," and so with the other quantities. To use scruples or drachms and Roman numerals would be to get into a calculation for no other purpose than to get out of it again.

Suppose a man has to perform a simple chemical determination—say the solid contents of a decigallon of water from some waterworks—first he weighs a capsule, which equals, say, 413·98 grains; (2) after evaporating the water therein, and drying at 250°, it weighs 416·4 grains; (3) after drying still further, 416·35 grains. This number is adopted, giving as the total solid impurity, viz., the difference between the first and third weighing, multiplied by ten, as per gallon, 23·7 grains.

These results are seen at a glance. But what chemist, except

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his head were stuffed with straw, would write down, instead of the above figures, "Weight of capsule, ʒvj., ℈ij., gr. xiij., et xcviij. partes grani e centum; after evaporation, ʒvj., ℈ij., gr. xvj., et xxxv. partes grani e centum; weight of solid residue per gallon, ℈j., gr. iij., et septem partes grani e decem?"

If chemists do not vex their souls with these antique intricacies, why should we? But if the manner of expressing quantities in grains be easy, infinitely more so is the actual weighing, if, instead of the odious Apothecaries' weights, we have a set of plain grain weights.

With the Apothecaries' weights they give ʒij., ʒj., ℈ij., ʒss., ℈j., ℈ss., besides grain weights stamped to represent 6, 5, 4, 3, 2, and 1 grain.

It is practically difficult to distinguish between ℈ij. and ʒss., and it takes up a good deal of calculation to make up odd numbers of grains.

A box of good chemical grain weights, on the contrary, has them in regular sets of four, out of which any combination can be made immediately by the simplest process of addition. The grain weights are made of wire, bent in such a way that each gives its value at a glance.

The highest set of weights, for hundreds of grains, is—600, 300, 200, 100. The next, for tens—60, 30, 20, 10. The third, for grains (of platinum wire)—6, 3, 2, 1. The fourth, for tenths (of platinum wire)—·6, ·3, ·2, ·1. Hundredths may be had in gold wire, but are not necessary, and tenths can seldom be wanted in dispensing.

It may be seen at a glance—First, that the series of "tens of grains" harmonises with ʒj., ʒss., ℈j., and ℈ss., if any one loves the old system and chooses to use it. Secondly, that out of the above numbers any intermediate number can be formed. And it may be added, thirdly, that the custom of putting weights into the scale-pan in regular order is useful, like all other chemical processes, as a means of teaching exactness and order.

THE WEEK.

THE NEW PHARMACOPŒIA.

Very great dissatisfaction is expressed at the fact, that the General Medical Council have issued a half-guinea edition of the Pharmacopœia, and, it is said, do not propose to issue a cheaper edition yet for a month. If such a device had been the work of a common publisher, it would have been called a shabby trick of the trade. The edition already published appears unnecessarily expensive.

SURGEON TURNBULL.

We are glad to hear it reported that Surgeon Turnbull is not to be put upon half-pay, but will be allowed to exchange into some other regiment. The Medical Profession will know how to appreciate this act of justice on the part of H.R.H. the Commander-in-Chief.

THE COUNCIL AND THE COURT OF EXAMINERS OF THE ROYAL COLLEGE OF SURGEONS.

Most of our readers are probably by this time aware that the Council of the College of Surgeons have elected Professor Partridge, of King's College, to the seat in the Court of Examiners, vacant by the death of Mr. Green, and have passed over the claims of Professor Gulliver, whose seniority in the Council to Mr. Partridge constituted him the candidate next eligible for election. By this course of proceeding, the Council have laid themselves open to the charge of combining to exclude all except metropolitan Hospital Surgeons from the examination of Surgical pupils. The injustice and short-sightedness of such a course are clear. It is contrary to the plainest dictates of right that a board of examiners should be composed alone of the teachers of the candidates examined. A board of examiners should comprise the best men, selected on the most eclectic principles, and should be, in the eyes of the Profession and the public, above suspicion. The Charter of the College, and the right vested in the Fellows to elect the Council, have done but little for the Profession, if the body who in reality wields all the influence, exercises all the power, and, we may add, receives all the emolument, is to be confined to the *coterie* of London teachers of Anatomy and Surgery. The Surgeons of the London Hospitals are, undoubtedly, a most able body of men; they have great opportunities of becoming most accomplished in their art, but we assert that the Surgeons of *town* do not represent British Surgery. They are not military or naval Surgeons; they have few of them time or opportunity for cultivating those more abstruse branches of science on which the whole healing art is founded. In many of the provinces, on foreign stations, and in the colonies, fields of practice are open, where cases present themselves which are rarely or never seen in London Hospitals. We take up this matter, not on personal, but on general grounds; and we maintain that, in overlooking the claims of such a man as Professor Gulliver, the Council have set a precedent which will militate against the best interests of the Medical Profession.

But it may be said, that the course pursued by the Council on the present occasion has not been the one always followed, and the instance of the election of Mr. Kiernan may be cited. But the readers of this Journal will recollect that his election was carried by a narrow majority of one only, and in spite of strong opposition. Never was a man more fitted for an anatomical examiner than Mr. Kiernan, as his long service in that capacity at the University of London had proved; and yet, on the sole ground that he was neither a London teacher nor Hospital Surgeon, the services of that most accomplished anatomist were only secured to the College by the casting vote of the then president. On the same narrow principle Messrs. Swan and Copeland were passed over.

In the case of Mr. Gulliver, there were the strongest reasons why he should have been welcomed into the examining body of the College. His scientific researches have secured him the highest reputation, and have enlarged the bounds of physiological and anatomical knowledge. He has stood forward in the theatre of the College as the champion and defender of those claims of the British school of physiology which have met with but scant appreciation even from Englishmen. His long experience in the army, and his opportunities of practical study of the diseases and injuries met with in the public services at Fort Pitt, have given him a variety of pathological information which is scarcely to be obtained in a more restricted school. Since the death of Mr. Guthrie, the Army Medical Department has had no representative in the Court of Examiners. The election of Mr. Gulliver would only have been a fitting tribute to his distinguished scientific acquirements and to the military branch of our calling. The Profession will not be surprised to hear that, in disgust at the slight thrown on his labours and Professional and public services, this gentleman has resigned his seat in the Council.

But, as we before said, we notice this matter on general, and not on any narrow or personal considerations. If the Court of Examiners is to be a body composed of the very best men of all Surgical schools—if the patent mistake of confiding solely to the London teachers the examination of their own pupils, is to be amended—and if something more is to be expected from the English Surgeon than a superficial knowledge of descriptive anatomy, and a mere acquaintance with the class of cases to be met with in town Hospitals, the Fellows of the College must let their influence be felt within the walls of the Council. The members of the Council are their nominees. Indirectly, the members of the Court of Examiners must be the same.

ETHNOLOGICAL TRANSACTIONS.

It is seldom one meets with a pleasanter and more satisfactory work than the second volume of "Transactions of the Ethnological Society," recently published. From the variety of

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subjects, and the mass of interesting matter, it is hardly possible to do justice to it within the brief compass at our disposal. Thirty communications fill 468 pages; and though their contents are various, the unity of idea which pervades all would have surprised any scientific man some years back, before the form and features of ethnology as a distinct science had been carved out of the inert body of general history and research. Mr. John Crawford, the President, communicates no less than six memoirs, which, from the breadth of their treatment, and the importance of their topics, might well be separately published as essays. The first in the book is on the "Connection between Ethnology and Physical Geography." A second, on the "Numerals as Evidence of the Progress of Civilisation," takes these advanced abstractions as a measure of social condition. The "Antiquity of Man, from the Evidence of Language," argues in favour of a remote period for our species, on the ground of the adventitious character of speech, and its necessarily gradual formation. The "Memoir on the Commixture of the Races of Man as Affecting the Progress of Civilisation," starting with the supposition that man, on his first appearance on earth, consisted of many distinct and independent races, examines the breeding and cross-breeding which have occurred in several of the principal European nations. A paper on "Colour as a Test of the Races of Man," shows the great persistency of any particular pigmentary tint, and, like its predecessor, inclining towards original diversity of the human type, examines Albinos, individuals with excessive growth of hair, and other abnormalities. At the end of the volume is a collection of "Enquiries as to the Relation of the Domesticated Animals to Civilisation," which, although read by their author on different occasions at the meetings of the Ethnological Society and British Association, form, in fact, so many consecutive chapters on one general subject. At the head of "Domesticated Animals" is placed, somewhat quaintly, man himself; and after him follow, in a space of above eighty pages, many interesting facts respecting the various mammalia, birds, and insects which acknowledge his mastery, or contribute to his wants. Dr. James Hunt, Hon. Secretary of the Society, contributes, besides a "Report of Papers," a *resumé* of "Ethno-Climatology," or the acclimatisation of man. He leans to the opinion of Sir Ranald Martin, that acclimatisation is impossible, and endeavours ably "to suggest to ethnologists and geographers the necessity of a further investigation of the important question." Here we may notice one of the most valuable features of the work—namely, the synopsis of the consequent discussion at the meeting. The President's papers seem specially directed to encourage this laudable object of a society; and after the Hon. Secretary we find the names of Mr. Layard, Mr. Monckton Milnes, Sir Erskine Perry, Dr. Hodgkin, Sir Alexander Tulloch, Mr. H. Sandwith, and Dr. Ward.

The Bishop of Labuan gives a forcible and characteristic "Account of the Wild Tribes on the North-West Coast of Borneo. Professor Owen explains the "Osteology and Dentition of the Aborigines of the Andaman Islands, and the Relations thereby indicated to other Races." G. M. Tagore, Esq., very appositely furnishes a notice on "Buddhism," and another on the "Caste System." Professor Huxley sends a letter on the "Human Remains Found in Shell Mounds." Mr. Robert Clarke brings a singularly interesting series of "Sketches of the Colony of Sierra Leone and its Inhabitants." This is illustrated by numerous portraits of the various tribes, lithographed from his drawings. Some apology is made for these in the preface, perhaps not quite undeservedly, though an entire and faithful copy of all is promised at a future period. The "Ethnology of Egypt," "Vocabularies of Native Words," "Description of Human Remains and Disinterred Ornaments," "Information as to the Tribes of Northern Kurdistan," by Mr. W. Spottiswoode, and many other valuable materials, give the highest value to the publication, and indicate its scope. If such volumes can be obtained separately, they might form excellent additions to libraries and book societies, for they gather up the heads of great subjects *citó, tutó, ot jucundé.*

FROM ABROAD.—THE SURGEON-GENERAL OF THE UNITED STATES ARMY—DREAMS AND REALITIES—SPONTANEOUS ORIGIN OF MALIGNANT PUSTULE.

Some time since (*Medical Times and Gazette*, October 17) we noticed the remarkable circumstance, that Dr. Hammond, the Surgeon-General of the United States Army, in the very midst of a most successful career of enlightened administration, which was obtaining for him the highest public and professional approbation, had been removed from his scene of usefulness, and despatched to a distant region upon a comparatively unimportant mission. This seemed at the time quite unintelligible; and, although a motive has since been assigned, we are still unable to understand how, in a country professing a love for justice and fair play, it has been allowed to operate so mischievous a procedure. It appears that, in the course of the reforms he has had to institute, Dr. Hammond has found it necessary to rout out more than one nest of jobbers in public calamity, and has had the courage to execute his duties in face of great difficulties. Those whose interests he has thus interfered with seem to have possessed power enough to obtain his relegation from the proper field of his duties, and the appointment of a secret commission to investigate in his absence charges made against his management of his department. This inquisitorial procedure has naturally aroused the indignation of the Profession, especially as this is only one of many acts exhibiting a disposition to interfere with, and trammel, the legitimate action of the Medical Department, to which the army owes so much. A circular is now in the process of distribution, calling for united action in this matter, in order to press upon the authorities the necessity of a full and fair inquiry.

"If Dr. Hammond," says the circular, "has not forfeited his right to fill the position for which he was selected, he should be reinstated immediately. If, on the other hand, his honesty or competency is questioned, it is due to the President, the Senate, and the people, that this should be made known by the results of a formal procedure, and not from an investigation conducted by a secret, *ex parte*, and anonymous commission. Let the accused have the same hearing as his accusers. Let the examination be as severe and searching as you please, so that it be but fair and open."

The United States Sanitary Commission (a body which has done such immense service in seconding and supplementing the Medical Department during some of its most direful emergencies) has also addressed a strong remonstrance to the President upon the subject. After testifying, from ample opportunity of observation, to the great services and efficiency of the Surgeon-General, it protests against his removal from his post, by the agency of any secret cabal, as a step fraught with the grossest injustice, and one likely to lead to the most mischievous consequences.

Our contemporary, the *British Medical Journal*, fell into a somewhat droll error last week. It held up for the admiration and imitation of the Deans of our Medical Schools the wonderful doings in Paris for the accommodation of students. A magnificent edifice, designated "Grand Hôtel des Ecoles," was represented as existing in the Boulevard de Sebastopol, provided with a spacious garden, fountains, billiard and reading rooms, and a grand *salle à manger*. In an upper storey, nicely furnished and well warmed bed-rooms open into light and airy corridors, while for those who have the misfortune to fall sick a Hospital ward exists. This luxurious and charming abode is exclusively devoted to the reception of students, who are here lodged, fed at a well-appointed *table d'hôte*, and provided with fuel and amusements for the small sum of £4 a month per head. On perusing this statement, those who have recently visited Paris must have rubbed their eyes and lamented their stupidity in having neglected to notice this model of economy in the midst of the costly magnificence of that capital. They may spare their regrets, however, for search where they might they would still have come to the same result, *non est inventus*. Alas! this splendid erection, which our contemporary calls upon us to admire and imitate, exists

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but in the fairy dream of that vivacious *feuilletoniste*, Amedée Latour, who presents it as the *beau-ideal* of what is to be desired. Awaiting its realisation, we shrewdly suspect that the Medical students of Paris would only be too well contented with the superior comfort and material advantages enjoyed by those of London.

The discussion on the vaccine virus at the Academy of Medicine being in abeyance, M. Gallard has taken the opportunity of reading a paper upon malignant pustule. Hitherto this has universally been considered a contagious disease, communicated from animals to man; and when such communication has not been demonstrable, it has been assumed as a matter of course. This view it is the object of M. Gallard's paper to dispute, believing, as he does, that the disease not unfrequently arises spontaneously in man. He refers to nine cases treated by M. Devers since 1857, in the small commune of Bénote, in the Department of Charente-Inférieure, in none of which the origin of the affection could possibly be traced. M. Gallard extended the investigation throughout the whole of the department, as well as the adjoining departments, interrogating more than one hundred Medical Practitioners; and nowhere else could he find traces of malignant pustule in man or beast. From this investigation, as well as from a consideration of various cases reported by authors, M. Gallard comes to the conclusion, that while in the bulk of instances this disease is a result of contagion, there are many cases which cannot be so accounted for.

REVIEWS.

Notes on Hospitals. By Florence Nightingale. Third Edition, Enlarged, and for the most part Re-written. London: Longmans. 1863.

It is sad to see a work of so much value—full of such useful information—disfigured by a few serious and elementary mistakes. Much as all Medical men must appreciate the philanthropic labours of its authoress, it is a false kindness to pass erroneous views without a protest. This becomes the more incumbent on us, as the third edition sins more notably than its predecessors. While we do not withdraw one word of the commendation which was bestowed on former editions, we feel bound not to become tacit accomplices in the spread of opinions which are not accounted sound by competent authorities.

In the very first section it is laid down as an axiom, that the "sanitary condition" of Hospitals modifies the ultimate issue of cases which pass through the wards. The assertion, that there is no such striking difference in the mortality of different Hospitals, as one would be led to infer from their great apparent difference in sanitary condition, is then commented on; and it is judiciously granted that different diseases, ages, and states on admission may considerably affect the results of treatment. "But," continues the authoress, "the fact has sometimes been made use of in a way no one could have anticipated. A high and increasing death-rate has been actually put forward, not as the result of these causes, but as the result of increasing celebrity, which can have no other practical meaning than this: that a greater number of people go there to die next year, because so many have died there this year,—a principle equally applicable in private practice, and according to which the Physician or Surgeon who loses the largest percentage of cases is the man most worthy of confidence."

In all courtesy we must affirm that this extract is incorrect, illogical, and impulsive. It is incorrect because it misrepresents the statements of those who deny the accuracy of mere numerical comparisons as a test of Hospital efficiency; it is illogical, because the "practical meaning" is unfairly deduced; and it is impulsive, because, by a hasty *argumentum ad hominem*, covert sarcasm is made to do duty for argument.

Space forbids our recurring here to the question of Hospital death-rates. Dr. Peacock showed most conclusively some years ago, that their amount depended on causes almost wholly independent of "sanitary condition," and the same view has been established at large in the pages of this Journal. Although it is obviously unnecessary to deny that sanitary condition *may* influence disease and death, no more distinct refutation of the quotation just made is needed than is supplied by page 5 of the same chapter. When speaking of the duration of cases it is remarked that "Hospital mortality statistics have hitherto given little information on the efficiency of the Hospital, *i.e.*, as to the extent to which it fulfils the purpose it was established for, because there are elements in existence of which such statistics have hitherto taken no cognisance. In one set of Hospitals in the table I find the mortality from 12⅛ to 15½ per cent. upon the cases treated, while in other Hospitals the deaths reach from 83 to 90¼ per cent. To judge by the mortality only in these cases would be most fallacious; because, in the first class of Hospitals, ailments not of a dangerous nature constitute a title to admission; while in the latter class of Hospitals, dangerous and special diseases, at all times accompanied by a high rate of mortality, are largely admitted."

As a specimen of the way in which it is proposed to employ the numerical data thus gained, we will next call attention to a table of mortality mentioned in our last extract, and which does not appear in the first edition of the work. It is one of a set of occasional tables from the Registrar-General's last annual report, and, therefore, perhaps Miss Nightingale can hardly be held responsible for it. In 1861, returns were obtained from 106 Hospitals, giving the number of inmates in each on April 8. The number of deaths registered in each Hospital during the year 1861 is also given. Our readers will hardly believe that on these two bases a percentage of mortality is struck. The inmates of a single day are balanced with the deaths of a whole year, and no wonder the results are "striking enough." It is to be hoped there are valid reasons for giving to the world what seems to us a simple piece of arithmetical legerdemain. Surely it is the very essence of percentages and of averages (both, we believe, fruitful sources of error), that the figures dealt with should stand on one and the same bottom, and that deaths for one year should be compared with admissions or discharges for that period, and no other. There is something audacious in the last column of this table, where twenty-four London Hospitals are accredited with a "mortality per cent. on inmates" of 90·84. No doubt it will be said this is the quotient of the figures employed; but we entirely deny their validity and the accuracy of the impression thus conveyed. The problem as here put is exactly that so often asked of forward schoolboys—What is the quotient of a hundred apples divided by fifteen red herrings. We can but compliment our mathematical friend, Lord Dundreary, on his appearance in a new and unexpected situation.

It is refreshing after this to find the authoress appealing to her own instinct and experience, instead of figures which we cannot endorse as "reliable." Careful observers, she says, "are now generally convinced, that the origin and spread of fever in a Hospital, or the appearance and spread of Hospital gangrene, erysipelas, and pyæmia, generally are much better tests of the defective sanitary state of a Hospital than its mortality returns. One insensibly allies together restlessness, languor, feverishness, and general *malaise* with closeness of wards, defective ventilation, defective structure, bad architectural and administrative arrangements, until it is impossible to resist the conviction that the sick are suffering from something quite other than the disease inscribed on their bed-ticket." Undoubtedly, a work directed to the remedy of such evils deserves praise, and has the good of the sick for its purpose, in spite of the slight uneasiness which springs up involuntarily in the mind on reading the last quotation, and the suspicion of a second diagnosis overruling that of the responsible Practitioner. This feeling is somewhat increased by the wholesale denunciation of "contagion and infection" which follows, and which, if not promulgated by a lady, would require rough treatment. It is proposed summarily "to lay these spectres, which have terrified almost all ages and nations." The subject is too large for discussion here; we can only express our surprise at the celebrated Black Hole of Calcutta figuring as an example of infection. It is represented in most accounts as an instance of simple suffocation and excessive heat, without a word as to any infectious disorder; but on this point we are open to correction.

A series of plans of existing Hospitals, with their defects, is illustrated by two excellent maps of London and Paris respectively, in which the various Hospitals stand in bold relief. Such a chart is interesting and valuable; we have long used one roughly made for our own convenience, and we heartily recommend this more elaborate specimen to all our readers.

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In the third section, the principle of separate pavilions in Hospital construction is strongly urged; two floors, and no more, are recommended, with 80 to 100 square feet of superficial area to each bed in the wards. It concludes with many important details on minor points.

Chapter IV. gives improved Hospital plans, abundantly illustrated by drawings of English and foreign examples. In the fifth chapter, Convalescent Hospitals furnish very interesting matter, and a design for a convalescent Hospital arranged as cottages, which is a real gem, and is fortunately in progress as the Herbert memorial for the county of Wiltshire. A note on the Convalescent Hospital recently established by the Emperor of the French at Vincennes, contains full particulars as to this noble foundation.

The remarks upon Children's Hospitals are what a woman only could frame, and for this, among many reasons, are of the most sterling worth. The same commendation applies to Miss Nightingale's appreciation of Sisterhoods, both in and out of their place.

Indian Military Hospitals, Forms for statistical returns, and notes on systems of Hospital nursing, bring the volume to a close: some of these have already been noticed at length in our pages; others we hope to recur to hereafter. The remarks which have been made on limited points do not in any way preclude our heartily congratulating Miss Nightingale on the public appreciation which has given rise to a third, and all but rewritten, edition of her work. That it is calculated to be of great service to our Profession is past denial; and such a hope receives promise of speedy fulfilment from the temperate and judicious views expressed as to the removal of St. Thomas's Hospital. It is to be desired that the principles here enunciated may carry due weight with the governors of that important institution.

GENERAL CORRESPONDENCE.

MEDICAL SERVICE IN THE FEDERAL ARMY.

LETTER FROM MR. CHARLES MAYO.

[To the Editor of the Medical Times and Gazette.]

SIR,—Perhaps the enclosed extracts from a letter which has just reached me from a comrade in the Medical service of the Federal army may be interesting to some of your readers. I should explain that Dr. Hammond, who had fallen into disfavour with the Secretary of War (Mr. Stanton), had been kept for some months on a tour of inspection of the Military Hospitals in all parts of the States, while a substitute was installed in his place in Washington. The person referred to as "S——" was a subordinate in the Surgeon-General's office, who was, as may be inferred, no favourite in the service. His punishment is one to which penal servitude would be leniency. A journey of four or five thousand miles, including the passage of the Rocky Mountains in mid-winter, and ending in the wilds of a scarcely inhabited territory, is a task from which the boldest pioneer of civilisation might shrink. The concluding lines of the extract illustrate the hospitable character of my American friends. I am, &c.

CHARLES MAYO.

New College, Oxford, January 26.

"Philadelphia, January 8, 1864.

". . . Hammond (the Surgeon-General), after going through the region of the Gulf and Lower Mississippi, arrived, two weeks since, at Nashville, where, in coming down the steps of one of the Hospitals, he fell and so injured his head and back, that he has complete paralysis of the lower half of his trunk, and, of course, of both lower extremities. He will never stand upon his feet again.

"Acting Surgeon-General Barnes has been in his place in Washington nearly ever since Hammond left for New Orleans, and will probably be made Surgeon-General. That monkey, S——, has received at last a part of his dues. His history is a short and instructive one. After Hammond left Washington, S—— assumed the purple, and held sway for just twenty-four hours, during which brief period he issued two impertinent orders, after his usual manner, to Assistant-Surgeon-General Wood, at St. Louis. On the following morning, Stanton ordered S—— to report for immediate duty to Wood. On arriving at St. Louis, he was kept in Wood's ante-room for a few hours, and then ordered forthwith to report for duty in the department of Santa Fé, New Mexico, where, I am very credibly informed, he was ordered to report in person for immediate duty at an outpost in Oregon. No doubt he is now wandering or plunging through the frozen snows of the Rocky Mountains. In his worse than Siberian exile he will enjoy ample leisure to reflect upon his many heartless acts.

"The 13th Army Corps is rejoicing in Texas, near the Rio Grande, I believe. I have left the army, and now again rejoice in a manly freedom. And now about yourself. I hope you have lost the complaint which your visit to Vicksburg inflicted on you. I ask with interest, because Dr. W—— (the Sanitary Commission Agent, you remember, at Vicksburg) told me a few days since that he was troubled still. I thank you for calling at my house. Had I been at home you would have found the latch on the outside of the door. I hope, on some future occasion, to see you lifting it up and walking in; you will be heartily greeted, I assure you.

"Believe me, &c."

RAILWAY SURGEONS.

LETTER FROM MR. T. M. KENDALL.

[To the Editor of the Medical Times and Gazette.]

SIR,—I trust to your straightforward and truthful way of dealing with all cases, for insertion in your next of my letter relating to your article—"Railway Surgeons"—of the 16th instant.

No one who knows it can doubt it relates to the late sad accident on the Lynn and Hunstanton line. I am Surgeon to the Company, and therefore feel aggrieved. In the first place, every sufferer was attended by their own Medical man where they wished, and the company paid every charge sent in. I only saw casual patients where they wished it, or by the request of the company, and then only in the presence, or by permission, of the Medical man attending, and in his presence. Referring to the case you particularly allude to, I beg to say, I never saw her as a Professional man until some weeks after the accident, and that after the action for increased damages had commenced, and then in the presence of her private Medical attendant and the two gentlemen who examined her as to her state; and I unhesitatingly gave a certificate that she was suffering from aneurism of the aorta. I never, directly or indirectly, attempted to settle any case on behalf of the company.

I feel these statements are due to myself, and request their early and full appearance in your Journal.

I am, &c., T. M. KENDALL, F.R.C.S., &c.

King's Lynn, January 20.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, JANUARY 19.

MR. PRESCOTT HEWETT, President.

DR. WILKS showed the

SUPRA-RENAL CAPSULES FROM A PATIENT WHO DIED OF MORBUS ADDISONII.

These organs presented the usual appearances seen in morbus Addisonii, and came from a girl who was under Dr. Wilks' care in Guy's Hospital, and who presented a model case of the disease. She was 23 years of age, and for two years had suffered from discoloration of the skin, debility, some wasting, and occasional sickness, the sickness being at times worse. She sought the assistance of Medical men. She had seen several, and they all considered the case as one of liver disease. This mistake (Dr. Wilks says) should not have been made, seeing that her eye was not yellow, nor her urine jaundiced. When she came to the Hospital her skin was of a greenish-brown colour, like that of a native of the south of Europe; she did not appear very ill, judging from her expression, but was so weak that she was obliged to be carried to bed; she also had sickness. The latter abated, and she felt much better, so that indeed she was the merriest person in the ward. She was, however, at this time so weak, that she could not sit up in bed, and her pulse was like a thread. Wishing to leave the Hospital

at Christmas time, she went home, Dr. Wilks requesting that he should be informed when she became worse. Only a few days elapsed when he was sent for and found her in a dying state. She was quite sensible, and able to speak, but was utterly powerless, and her pulse could not be felt. She had been lying in this state for twenty-four hours, and in the course of the night she died. Dr. Wilks said the case was so marked that he invited several Medical men to see it, and took one of her Medical attendants with him, to perform the post-mortem examination. No disease was found in any part of the body, except in the supra-renal capsules, which were converted into a yellow, amorphous material, with some cretaceous deposit. Dr. Wilks remarked that several attempts had been made to investigate the subject of Addison's disease, by an examination of the supra-renal capsules in all bodies. He had done this for many years himself, and like Professor Mattei, of Siena, but his observations had been unattended with success. The reason seemed to be, that, if affected by any other disease than the special one, they were only partially or rapidly involved in some disease which infected the whole body, as cancer or tubercle; whereas, in morbus Addisonii, the change was a primary one, and altogether independent, pursuing its course for several years, and, probably, totally destroying the organ a long time before death. It was for this reason that the author of the discovery did not look upon the supra-renal capsules as vital organs, but which, when diseased, produced the remarkable asthenia by implication of the centres of the ganglionic system, which were closely contiguous.

THREE CASES OF MORBUS ADDISONII.

Dr. Wilks also exhibited some supra-renal capsules affected in a similar manner, and which had been sent to him by Dr. Hardwick, of Leeds since deceased. The patient was a man, 29 years of age. For some months he had pain in the back and leg, and, about nine months before his death, his companions noticed his skin becoming yellow, and they thought he was going to have jaundice. He got weaker, and the skin became darker, and the urine was always pale. He got a little better under treatment, when he had an epileptic fit, and subsequently he had vomiting and slight convulsive movements. He was then so feeble that he was obliged to be carried to the Infirmary. His body was of a dirty, olive-brown tint, giving him a close resemblance to a mulatto. He also had a psoas and lumbar abscess. His depression gradually increased until death. There was found disease of the lumbar vertebræ, and the supra-renal capsules were converted into a dense, tough, fibrous mass, with some cheesy, tuberculous matter. Dr. Hardwick stated in his communication, that since he had been connected with the Leeds Infirmary he had seen four other cases of morbus Addisonii besides the one just related. In two of them, although the symptoms were well-marked, the cases were not followed to their termination. In the other two—one was a man, 52 years of age, who had long suffered from great prostration and discoloration of the skin—death occurred by gradual sinking. No disease was found except in the capsules, which were converted into a grey, lardaceous material. The other was that of a woman, aged 69, who had great prostration, frequent vomiting, and her skin was of a dark brown colour throughout. No disease existed except in the capsules, which were filled with a mass of grey and yellow, soft, cheesy deposit. She was a patient of Dr. Hall.

Dr. Harley, in reply, stated, that although he had no wish to reopen the question which had given rise to so many animated discussions at their meetings a year or two ago, he could not allow some of the remarks which had fallen from the last speaker to pass unanswered. Dr. Wilks appeared to be both surprised and annoyed that pathologists of standing in Edinburgh and elsewhere still doubted the existence of the so-called Addison's disease, which he seemed to regard as a settled question. He (Dr. Harley), like Dr. Wilks, also thought that it was a settled question, but differed from him in thinking that it was settled in the affirmative; for, on the contrary, the highest authorities on pathology abroad, and nearly all at home (only one or two being exceptions to the rule), had either given a distinct negative or left the question as very doubtful; and no one who had carefully watched the progress of the discussion could be in the least surprised at such a result. Even the most staunch supporters of the theory of bronzed skin and supra-renal capsular disease had shifted their ground so often, and altered their views so frequently, that he for one must confess that at the present moment he had not the most distant idea of what Addison's disease consisted in. First, we were told it consisted in bronzing of the skin, and destruction of the supra-renal capsules: next, we were told that the bronzing must be universal, not in patches; then informed that the bronzing of the skin only occurred in the most advanced stages of the disease; and, lastly, there came a time when we were informed that the bronzing of the skin was in no way essential to the affection, its presence or absence being a point of minor importance. And now the disease seemed to have entered upon an entirely new phase of existence; for we were just informed by the last speaker that there is only one form of diseased capsules which constitutes Addison's disease,—viz., a peculiar scrofulous affection. It seems, then, that the supra-renal capsules may be totally destroyed by tubercle, or any other disease except that just mentioned, and their functions utterly obliterated, without giving rise to Addison's disease. The supra-renal capsules may be one mass of cancer, and yet the disease which is said to spring from the absence of their functions not exist. It further appears, from what the gentleman has just stated, that even the highest authorities on the subject have no very clear notions as to what the affections consist in; for, be it observed, that in the present case, which has been brought before the Society as an unmistakable example of the affection, its contributor acknowledges, that not only the resident assistants mistook it, but that even two of his colleagues failed to detect it; and further, that it was not until he himself had subjected the patient to the closest scrutiny, that he was able to detect this well-marked example of the disease. How, then, it may be asked, can he be surprised that persons like himself (Dr. Harley) fail to recognise the so-called Addison's affection? In truth, he believed with the German authors, some of whom had named it the "ephemeral epidemic," that it would gradually die away; and if the supporters of the theory wished to preserve its name a little longer from utter oblivion, they must be much more careful in the selection of their data, and at once abandon the system of publishing cases as examples of the disease, which have not only not been seen by competent observers, but in which the capsules have not been examined at all; for several cases have actually been published while the patients were still alive. It is further necessary for them to state positively in what Addison's disease consists; for, looking at the thing as it now stood, it appeared to him that the supporters of the doctrine were themselves doubtful if either bronzing of the skin or disease of the supra-renal capsules were at all essential to the supposed malady. And if they abandoned the bronzing, and abandoned the disease of the capsules, there could be no longer an Addison's disease.

Dr. Wilks said, in reply, that although there might be a difficulty in explaining the symptoms, yet the fact of the disease being foretold in so many instances, left the truth of Addison's statements incontrovertible.

Dr. Bristowe was surprised to hear that Dr. Harley considered that the question as to the existence of Addison's disease had been decided in the negative. He (Dr. Bristowe) had no doubt whatever about it. He had seen patients die with the symptoms described by Dr. Addison, and had found, after death, no disease except of the supra-renal capsules.

Dr. Harley again asked if bronzing was an essential symptom or not?

Dr. Wilks replied that it was not absolutely essential.

Dr. Harley then asked if it was essential that there should be no disease of any other organ?

Dr. Wilks said, that in all the cases which he had seen, the only other disease found had been a little tubercle; but he knew of no reason why it should not be found associated with other morbid conditions.

Dr. Risdon Bennett then related a case of Hydatid Disease of one Capsule. The other was healthy. There had been no bronzing of the skin, and no other symptoms of Addison's disease. But in two other cases, Addison's disease was diagnosed during life, and, after death, the capsules were found to be diseased.

[The remainder of the report of this meeting is in type, and will appear next week.]

New Prize Question.—The Paris Hospital Medical Society proposed the following subject for the Phillips prize of 1000 francs:—"Establish by means of positive facts the prophylaxis and curability of the form of meningitis termed 'tubercular.'" Essays, written in French, to be delivered to M. le Dr. Lailler, Secretaire de la Société, 22, Rue Caumartin, before April 12, 1866.

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LEGAL INTELLIGENCE.

COURT OF QUEEN'S BENCH, WESTMINSTER, JAN. 25.

(*Sittings in Banco, before the* LORD CHIEF JUSTICE, *Mr. Justice* CROMPTON, *Mr. Justice* BLACKBURN, *and Mr. Justice* MELLOR.)

EX PARTE SERGEANT v. THE GENERAL COUNCIL OF MEDICAL REGISTRATION.

THIS case raised an important question, under the Medical Act, 1858, affecting the Medical Profession. Under this Act a registry is to be kept of Medical Practitioners; and it is declared to be the duty of the registrars to keep it correct, and to erase the names of all registered persons who shall have died, and from time to time to make the necessary alterations in the addresses or qualifications of the persons registered, every person legally qualified according to the Act at the time of the passing being entitled to claim registration; and to enable the respective registrars duly to fulfil the duties imposed upon them, the registrar is to write a letter to any registered person, addressed to him according to his address on the register, to inquire whether he has ceased to practise or has changed his residence, and if no answer shall be returned to such letter within the period of six months from the sending of the letter, his name may be erased; provided also that the same may be restored on the direction of the General Council, should they think fit to make an order to that effect. And by another section the Council have power to strike off the names of Practitioners whom they shall, after due inquiry, judge to have been guilty of infamous conduct in any Professional respect. And only those who are registered are to be deemed duly and legally qualified Practitioners. In this case the applicant was qualified and registered at the time of the passing of the Act; but the usual annual letter having been since sent to him addressed to his last place of residence, it had received no answer within the six months (owing to a change of address), and the Council proceeded to strike out his name. In Trinity Term last he applied for a *mandamus* to the Council to restore his name under their general power to do so, "if they should think fit;" but the Court doubted if this raised a legal duty to do so, so as to render them liable to a *mandamus*. They, however, granted a rule *nisi* under another section of the statute, to hear and determine on his application to be registered *de novo* on due proof of his possession of the requisite legal qualification.

Mr. M. Smith, Q.C. (with him Mr. Horace Lloyd), appeared on the part of the Council to show cause, urging that, if the application were acceded to, the result would be that Practitioners who had been struck off for misconduct would be able to insist on reinstatement.

The Court, however, pointed out that by the Act the registrar is only to insert the names of Practitioners if satisfied by proper evidence that he is entitled to registration, which he would scarcely be in the case supposed; and,

The Lord Chief Justice put the case of a Practitioner whose name was struck off through mere *laches* or neglect on his part in not answering the usual letter. Surely, he was not to be excluded for ever from the practice of his Profession?

Mr. M. Smith said the Legislature had entrusted these eminent persons who constituted the Council with such powers, and it was not to be presumed that they would improperly exercise them.

Mr. Henry James appeared in support of the rule; and after some discussion,

The Court said the question was one of far too much doubt and too great importance to be decided summarily either way, and the *mandamus*, therefore, had better issue, with a view to raise the question regularly upon the record, so as to admit of its due argument and deliberate determination. The Court, without calling on Mr. James to support the rule *nisi*, made it absolute for a *mandamus*.

VICE-CHANCELLORS' COURTS, JAN. 22.

(*Before Vice-Chancellor Sir* J. STUART.)

GOODWIN v. BRAINE.

This suit, which was instituted for carrying into effect the trusts of the will of the late Mr. Atkinson Morley, formerly the proprietor of the Burlington Hotel, in Cork-street, came before the Court upon further consideration. The testator by his will gave £50,000 to trustees, upon trust, to purchase therewith a piece of land within seven miles of St. George's Hospital, for the purpose of erecting thereon a Convalescent Hospital in connexion with St. George's Hospital, and to which poor convalescent patients were to be sent for a period not exceeding six months. St. George's Hospital was empowered by Act of Parliament to take by will land, or money to be laid out in land, provided all the lands held by the Hospital did not exceed in annual value £20,000.

Mr. Greene, Q.C., and Mr. J. W. De L. Giffard were for the plaintiff; and Mr. Bacon, Q.C., Mr. Malins, Q.C., Mr. E. Hawkins, and Mr. C. T. Simpson, for the other parties interested.

The Vice-Chancellor directed proposals to be laid before him at chambers for a scheme for carrying into effect the trusts of the testator's will as to the sum of £50,000 bequeathed by him for founding a Convalescent Hospital in connexion with St. George's Hospital.

OBITUARY.

JONATHAN OSBORNE, M.D., M.R.I.A.,

PROFESSOR OF MATERIA MEDICA AND PHARMACY IN THE SCHOOL OF PHYSIC IN IRELAND.

IN our last impression it was our melancholy duty to chronicle the death of the esteemed Vice-President of the Royal College of Surgeons in Ireland; before the week closed, another member, likewise holding a public position of some importance, was removed from the ranks of the Profession, in the metropolis of the sister isle. Dr. Osborne, for many years King's Professor of Materia Medica and Pharmacy, and Physician to Mercer's Hospital, died on Saturday, the 23rd instant, at his residence at Blackrock, near Dublin. He was a member of the Royal Irish Academy, and of the Royal Society of Quebec. He graduated in the University of Dublin as M.B. in 1818, and as M.D. in 1837. His writings, which are not voluminous, consisting chiefly of contributions to the *Dublin Journal of Medical Science*, are characterised by originality of thought, and by classical learning. In proof of our statement we would refer more particularly to his paper on "Albuminous Urine," published in 1851, and to those on "Some Actions Performed by Voluntary Muscles, which by Habit become Involuntary," which appeared in 1859. According to Act of Parliament, the Professorship rendered vacant by Dr. Osborne's death cannot be filled up until after the expiration of three months.

Dr. Osborne's funeral took place on the 26th inst. The following members of the Medical Profession attended:—Professors Law, Smith, M'Dowel; Doctors Croker, Kennedy, Duncan, Wilme, Bevan, Stokes, Corrigan, Banks, Jacob.

DR. ROBERT GEORGE HARDWICK.

There will be but one feeling of deep regret in the town at the announcement of this event. Dr. Hardwick was a native of Leeds, had studied at the Leeds Medical School, had subsequently taken distinguished honours in the Medical examinations of the London University, had held the office of House-Surgeon to the Leeds General Infirmary during four years, and had settled for the last four years in Leeds as a Physician. His high attainments and testimonials secured him the appointment, against a formidable competition, to the post of Junior Physician at the Leeds Infirmary. Dr. Hardwick was also Physician to the Leeds Dispensary and to the House of Recovery, and Lecturer on Medicine at the Medical School. Though only just turned thirty years of age, and not long established, he was beginning to gain a good practice, and was generally looked upon as a rising man in his Profession. On Thursday last he was seized with inflammation of the bowels, which became so violent that, though attended by several of the ablest Medical men in the town, his case was regarded yesterday morning as almost hopeless. During the day he continued to grow weaker, and died at seven minutes past twelve o'clock this morning. His loss will be felt in the town by a considerable body of patients, and by the Medical School and Infirmary, with which he had been in different capacities for many years honourably connected, as well as deeply lamented by a large number of private friends. He was married about three years ago to Miss Cook, Richmond, Yorkshire, and leaves, besides his widow, two infant children. —*Leeds Mercury*, January 19.

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THE LATE MR. SMYLY.

MEMORIAL ADDRESS BY DR. STOKES,

DELIVERED AT THE MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

On Tuesday, January 26, instead of the usual clinical lecture, Dr. Stokes, the Senior Physician to the Meath Hospital, delivered, in the Lecture Theatre, an address in memory of the late lamented Mr. Smyly, who had been for so many years connected with the Hospital, and latterly as the Senior Surgeon. Amongst those present were:—Mr. Porter, Mr. Maurice Collis, Mr. Wharton, Dr. Philip Crampton Smyly and Mr. Macnamara, Surgeons to the Hospital; Rev. William Greene, Dr. Collins, Dr. Quinan, Rev. Dr. Marks, Dr. Alexander Marks, Mr. F. Lowe, Mr. Sweetman, Dr. Churchill, Mr. Robert Wilson.

Dr. Stokes said—Gentlemen,—We meet here to-day to do honour to the memory of him whose remains we followed so lately to the grave, whose death we all feel to have been a misfortune to society, to the interests of Irish Surgery, and to ourselves individually, whether as friends, colleagues, or pupils. Yet let us not mourn as men without consolation. In this life it is wisely ordained that few things can happen to us which, when they are made the subjects of an earnest reflection, fail to show that in God's dealings with us he can make good to come out from apparent evil, and hope for the future happiness of man on earth from all his judgments, dark and inscrutable though they be. For now we have to interrupt our daily work, and pause to study the best and brightest object of all things earthly—the life of a good man, one of ourselves, whose labours we can sympathise with, whose difficulties we can understand, whose command of his Professional knowledge we have so long admired, whose charities to all, and whose delicate sense of the right, were so large and so manifest. When I look back on my Professional life, nothing seems so strange as the havoc which death has made among the Physicians and Surgeons of Dublin who flourished when I was a young man. If we take this Hospital merely from the year 1826, when I was elected to the post of Junior Physician, the death-roll is appalling. We have lost Roney, Hewson, Colles, Macnamara, Graves, Crampton, Porter, Ledwich, Rynd, Lees, and now Smyly; and, adding the deaths of Dr. Harkan and my father, we have thirteen deaths of officers of the Meath Hospital since 1826—that is to say, one death in somewhat less than every three years. But let us look at the mortality of the Profession in Dublin during the same time—Cheyne, Carmichael, Colles, Wilmot, Cusack, John Crampton, Peile, Marsh, Kirby, Greene, Harrison, Houston, O'Beirne, Curran, MacDermot, Power, Williams, Neligan, Robert Shekleton, Douglass, Orpen, Brooke, Litton, Jackson, Lebatt, Leahy, Keran, Hunt, Barker, O'Brien, Sargeant, Nunn, Stoker, Romley, Lynch, Tagart, Stack, Peebles, Bellingham, Montgomery, and Osborne. Now, I have to say that this list of names does not embrace the half of those members of our Profession who have died since 1826, and by whose deathbeds it was my misfortune, or my privilege, to have stood. Excluding those who have not been distinguished by their contributions to Medicine, we have this result, that during the last thirty-eight years we have lost one distinguished man for about every year. This is a startling result. We are now to turn to the loss of nearly the last of these true soldiers of Medicine. I say nearly the last, for, while I am now speaking, the remains of Professor Osborne are being carried to their last resting-place. Let me here observe, that many of those whom I have now mentioned attained to a good age, and died as full of honours as of years, and in the schools of Ireland their names are as household words. But, on the other hand, the wear and tear of Medical life is not to be overlooked. The chances of death from pestilential disease which our brethren have to meet as devoted, and, I grieve to say it, too often sacrificed, soldiers, are terrible, and are as yet unrecognised by their country. Let us look back to the epidemics of 1847 and 1848, when it was proved by the most careful statistical researches that, during the epidemic, 500 Medical men throughout the country suffered from fever, for the most part contracted in the discharge of their Medical duties among the poor; and again, that during one year death struck down nearly one-fifteenth of the entire Medical community of Ireland. You will pardon me for this digression. It has a close relation to the business of this day. Many circumstances concurred to place Mr. Smyly in the highest rank in our Profession. He was the child of parents in the middle class of society—that class which, when it is rightly viewed, must be admitted to be the highest, the source of the greatest virtue, happiness, talent, and power. He obtained the degree of Bachelor of Arts in the University of Dublin; and this I beg you to take note of, for all experience shows that University education is one of the circumstances which help men to rise in Medicine—first, from the effect of proper mental training; and next, from the social position that is thereby attained. In this place I have already spoken of the status which the Profession in Ireland, and especially in Dublin, has long enjoyed; a result which is in a great measure to be attributed to the wise determination of the University of Dublin to confer no degree of Medicine without the full education in arts. And you will remember that at the opening address which Mr. Smyly delivered only three months ago in this theatre, he advocated the great importance of University education to the Medical student. After having studied Surgery in the schools of Dublin, under the auspices of Sir Philip Crampton, his maternal uncle, he spent a session in Edinburgh, and then proceeded to pursue his studies in the Hospitals of Paris. He was soon after elected as Surgeon to this Hospital, being then 27 years of age. Like most of those of our brethren who have built up the reputation of the Irish School of Medicine and Surgery, Mr. Smyly, notwithstanding the pressure of a large and increasing practice, added largely to the literature of his Profession, by a succession of papers which appeared in the *Dublin Quarterly Journal of Medicine and Surgery* and in the *Dublin Hospital Gazette*. In the 3rd and 4th volumes of the first of these serials we have his "Memoirs on Lithotrity;" in the 11th volume, a paper on "Erysipelatous Laryngitis;" in the 18th volume, a case of the rare accident of the dislocation of the metatarsal bones downwards and backwards; in the 26th volume, two papers, "On the Median Operation of Lithotomy;" in the 27th, a most important communication, "On the Compound Fracture of the Patella;" in the 28th, an important report "On the Operation of Thoracentesis;" and in the 34th, a memoir "On Stricture of the Urethra;" and in the following volume, so late as May, 1863, we have the record of his large experience of the operation for strangulated hernia. Turning now to the *Dublin-Hospital Gazette* we find the following contributions:—1. "On Amputation in Popliteal Aneurism, when Compression Failed." 2. "On Benign Osteo-Sarcoma." 3. "On Diseased Stump." 4. "On Strumous." 5. "On Pelvic Tumour." 6. "On the Condition of the Arteries in Potts' Gangrene." 7. "On Dislocation of the Forearm outwards." The enumeration of these papers is sufficient to show the bent of his mind, and his desire to add to the stores of Surgical knowledge; they are not to be dismissed, however, with a bare enumeration. If we refer to his case of the dislocation of the metatarsal bones, we find that it occurred in his practice eleven years before the record of Mr. Tufnell of a similar accident, differing from it, however, in this, that the whole range of metatarsal bones was dislocated, causing a more extensive laceration of the ligaments, and again, permitting a more efficient use of the extending powers than could be applied in Mr. Tufnell's case, in which only three bones were displaced, the two which remained *in situ* impeding and resisting extension. In this paper, while he gives Mr. Tufnell the credit of priority in the description of this accident, he takes blame to himself for not at the time putting his own case on record. An important paper is on the operation for lithotomy, as advocated by Mr. Allerton. To this the name of the median, as distinguished from the lateral operation, has been given. He is strongly in favour of this method, and successfully shows that the immediate dilatation of the prostatic portion of the urethra, especially in children, is feasible and safe, the operation being thereby comparatively easy and harmless. By this method, he says, we escape,—1st. The danger of hæmorrhage. 2nd. The wound is not likely to bring on peritonitis. 3rd. Urinary infiltration cannot occur. 4th. The operation being not so severe, there is much less shock to the system. 5th. Therefore less likelihood of hectic fever. 6th. The wound does not become fistulous. 7th. There is no possibility of rectal fistula. Turning to his memoir on paracentesis of the thorax, I may observe that of this operation he had a large experience, and in it a singular success. I believe that he was the first Surgeon in this country who followed the method of Dupuytren, getting rid of the painful, tedious, and often dangerous, process of the division of the intercostal muscles. The instru-

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ment consisted of a semi-cylindrical canula, a lancet of the same form, together with the exhausting apparatus, so adjusted as to prevent the entrance of a bubble of air into the chest. His three most important papers are those on compound fracture of the patella, on stricture of the urethra, and on strangulated hernia. These are all of the highest value, and are, like those which precede them, models of that style in which the truths of Medicine and Surgery should be conveyed. They remind us of the papers in the Old Dublin Hospital Reports, from such masters as Cheyne and Colles, Wilmot and Cusack, Graves and Porter, M'Dowell and Adams. They are distinguished by clearness and moderation, without the approach to self-laudation, or a word of inflated language. This admirable style of writing was long characteristic of the Irish School of Medicine and Surgery. Let us never cease to uphold it, and in so doing follow in the footsteps of those great men who have won for their Profession and their country such lasting honour. I have shown you that Mr. Smyly did not neglect to add to the record of Medicine and Surgery. As an Hospital officer, we all know how conscientiously he performed his duties. Diligent in his visiting, gentle, charitable and painstaking; distinct in his diagnosis; calm, collected, and humane in the hour of operation; teaching as much, or even more, by example than by precept, he moved year after year in the circle of his duties among us, "clear in his great office." His presence repressed whatever was coarse or bad; he encouraged the good by example, while, without ostentation, he laboured for all who were entrusted to his care. Before we leave the contemplation of his Medical character, it is right to notice his advocacy of the principle of total abstinence from alcoholic drinks in the case of the healthy man. For many years he was a total abstainer; but this course he took solely as a means of discouraging the vice of drunkenness in others. I am anxious to say a few words on this matter, because some have believed that he carried his views on this question to the verge of fanaticism. Thus his character as a Physician has been, by a few, impugned as that of one who withheld stimulants even when they were called for in disease. That such was not the fact I can aver. No man knew better when, as in fever and other cases of debility, stimulants were called for. I never knew him object to them in consultation, or withhold them when required. To do so would have been quite opposite to the nature of his Medical mind, which was always practical and right judging. Now, while all must admire the motive which actuated him in the adoption of the total abstinence system in his own person—a matter, as I have shown, quite distinct from his use of stimulants in the treatment of disease—it is right to inquire whether the advocates of total abstinence do not occasionally fall into error. I have long come to the conclusion that the most common cause of the disease of old age, or at least the most common and important complication with them, is an enfeebled state of the heart. And I believe that when a man arrives at the age of sixty or upwards without local or organic disease, he should, if he wishes to live to the natural period of human existence, take his generous glass of wine. How many cases of slow decay of the nervous powers, whether of mind or of muscular motion, we do not see associated with this condition! A large number, too, of cases of the so-called determination of blood to the head, causing paralysis and apoplexy, are in reality the result of the very opposite condition—a deficient and enfeebled circulation in the brain. Venous congestion, hepatic enlargement, cardiac asthma, some forms of dropsy, mortification of the extremities, and other evils, may be traced to this cause, or are associated with it. And there is nothing wonderful in this. Look at the living heart, that from its period of microscopic formation in intra-uterine life, to its last throb when the old man dies, is the only organ that never sleeps—that never rests. Look at the gigantic amount of force thus produced. Take 70 beats in the minute, multiply that by 60, and you have one hour's work; multiply that by 24; that result by 365; that even again by 70—the threescore years and ten—and you have the total pulsations of the heart in a man's life amounting to 2,575,440,000. Yet, if we seek to estimate the amount of work done by the human heart during this same period of threescore years and ten, the results are more wonderful. Professor Haughton, in his recent "Researches on Muscular Force," has calculated that the force exercised by the heart during twenty-four hours equals that which would lift 124 tons one foot vertically. If me multiply this by 365, and again by 70, we get this result, that, in the life of a man of seventy years, the work done by his heart is equivalent to that which would raise upwards three millions of tons a foot. What wonder that this little organ should be the first to show exhaustion! What wonder that this exhaustion may go to a great length, even though the rest of the body be in apparent health! In the life of Cornaro we see that, as he approached the age of 100 years, he greatly diminished the use of animal food, but he always took his wine. Now, to apply this to ourselves as members of the Medical Profession. We are to remember that of all walks of life there is, perhaps, none in which mind and body suffer such wear and tear. None but those who are in full practice as Consulting Surgeons and Physicians in a metropolis, or, again, as the overworked and harassed country Surgeon, harassed and driven under a cruel law, by rich as well as poor, can know how often nature fails under the pressure of the day's work. Therefore, I wish you not to let the candle be burned at both ends. Avoid intemperance, for that is debilitating more than abstinence; but remember, that for mental and physical effort there must be a right proportion between the expenditure and the supply. No one knew this better than Mr. Smyly; but he was a rare instance of constancy in whatever course he thought calculated to further God's work upon earth, and so he made his life a continued and a willing sacrifice. Gentlemen, as we have profited by the life of him so lately taken from us, let us try to make his death also fructify to good. We cannot better bring our minds into a fit state for looking rightly at this matter than by reading from that Holy Book which was the study and the guide of his life, and thus we may read:—

"Blessed is the man that feareth the Lord, he hath great delight in his commandments."

"Unto the godly there ariseth up light in the darkness; he is merciful, loving, and righteous."

"For he shall never be moved, and the righteous shall be had in everlasting remembrance."

"He will not be afraid of any evil tidings, for his heart standeth fast, and believeth in the Lord."

"He has dispersed abroad, and given to the poor, and his righteousness remaineth for ever. His horn shall be exalted with honour."

In the Profession of Medicine, we may observe various and distinct classes of men: some seem to pursue it solely as a means to obtain wealth and worldly position, self being their object and guiding star; others, of a nobler order, adopt it as a liberal and honourable Profession, and if they rise to eminence, it is with the concurrence and good wishes of their brethren, and of all good men. It is in this class that we find the greatest number of the good, the useful, and the deservedly eminent members of our Profession. Another class adopt it as a necessity—as a means of earning a narrow and painful subsistence—and in this class we may find some of the noblest, bravest, and best of men. Another class cultivate Medicine, as well as its accessories, as matters of purely scientific investigation; and look on the patient as a specimen of pathology, rather than as a suffering brother. Now, though such men do great good in advancing Medicine and its collateral sciences, yet they are not Physicians. But there is a class or order of men in which it would be a privilege to be enrolled. Here we find men who either devote a large portion of their income to charity, or, if they accumulate wealth, determine to bequeath it for some noble purpose. With them, money has value only as a means of doing either immediate or posthumous good. Dublin can boast of men of this class. Let me name Sir Patrick Dun; Dr. Mosse, the founder, and we may say the endower, of the Lying-in Hospital; and Dr. Steevens. Each of these Physicians have left behind them the monuments on which their names must always exist: Sir Patrick Dun, as the endower of chairs for the teaching of Medicine and its accessory sciences; Mosse, for the foundation of our noble Lying-in Hospital; and Steevens, for that great establishment which bears his name, and that of the pious sister who carried out his last wishes—

Ricardus Steevens, dotavit,
Griselda Steevens, soror ejus,
Ædificavit.

Yet, much as we may admire that wish to leave our earned wealth for philanthropic purposes, we may ask, is it not perhaps a nobler, because a more self-denying course, to contribute day by day to the immediate necessities of our kind, than the securing the privilege and *prestige* of a lasting monument to our personal character and name? I believe that it is so. At least, those who adopt such a course cannot be accused of the longing to have their names honoured in this world—an

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instinctive feeling, no doubt, but one which, without offence to the memory of the illustrious men and Physicians I have named, has been for them satisfied. But there is a charity of another kind, preached by our Redeemer—that in which the right hand is not to know what the left hand doeth—taught by Him who has said that a cup of cold water given in His name shall in no wise lose its reward. What say you to a life, and that not a short one, thus earnestly and unfailingly spent? What are we to think of one who made all his powers, all his knowledge, all his disciplined patience and labour, to serve the cause of his and our Father, of his and our Christ, and to enlarge by his life and his labour the boundaries of the kingdom of love? Gentlemen, in this country of Ireland, where true history reads like a romance—the nursing mother of religion and of letters in the dark ages—the centre from which the light of the Gospel irradiated over Western Europe, torn by kingcraft and religious wars for a thousand years—vanquished, but never conquered—still divided by political strife and religious animosities—it was his fate to be born, and to have come to his manhood just at the time when Ireland was awakening from the state of torpor and collapse which followed on the events of 1800. He believed that there was one thing needful for all—the knowledge of Christ crucified, in whose fold there can be nothing but peace. It was his longing—and I speak that which I know—to labour for the end, remote though it might be, to make of his country "the city that had no need of the sun, neither of the moon, to shine on it—but the glory of God did lighten it, and the Lamb is the light thereof." It was natural that, with such deep convictions, with such unswerving constancy, with such a power and mastery over the inclinations of our nature, with such activity in the cause believed by him to be the right one, and occupying a high position in his Profession in a country so circumstanced as this is, he should be considered by many as one of those—unhappily so plenty in Ireland—who are influenced by sectarian feelings and old political animosities—feelings from which, God be thanked, our Profession at least is singularly free. Yet nothing can be more remote from the truth than this view of his character. I have often heard him speak on these matters, and I tell you that he was no bigot. He was a true Catholic, and sought to serve his kind, no matter to what denomination of religious belief any of them might adhere. I have heard him say that the cause for which he so laboured was often imperilled and influenced by indiscretions in controversy, by want of charity, by want of humbleness of mind, by ignorance of human nature, by want of respect for those feelings which old traditions engrave on the heart so deeply that they become, as it were, a part of our mental and almost physical nature, and pass from father to son. All this is true; and whatever the world may think of the wisdom of the course he elected to adopt—whatever it may hold as to whether we are yet in a position to argue, as from incontrovertible evidence, on many points of religious doctrine, it must award him the exalted merit of devotion to what he believed to be the truth, and admire the example of a life of pure love of his country and of his kind—a love only second to that for Him whose life he strove to imitate, so far as it was possible for erring and sinful man to do. Gentlemen, in the rolls of the departed Physicians and Surgeons of our Hospital, there are many names that our country and our Profession must remember with pride, as having been enabled, when called by their Master, to return the talents entrusted to them with interest. With sorrow and with pride, we may now inscribe another name in that long roll of honours.

REPORT ON SARRACENIA PURPUREA IN SMALL-POX.—A committee appointed by the New York Medical Society to report upon the recorded experience as to the merits of the sarracenia, arrives at the following conclusions:—1. That the analyses already made of the plant do not give any active principle or element which would indicate any Medical potency. 2. That the discoverers and advocates of its specific remedial power have apparently given too great credit to the *post hoc* circumstances as being *propter hoc* influences; one reason for this latter inference being suggested by the loose, unscientific, and eulogistic style of the communications. 3. That the reliable recorded experience appears to preponderate against the remedial efficacy of this plant in those forms of the disease which do not generally recover under the administration of ordinary remedies.—*American Medical Times.*

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary Examinations for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 26th inst.:—

Charles Durrant Pearless, East Grinstead; William Henry Power, Queen-square, Bloomsbury; Jean Baptiste Blanchet, M.D., and Master in Surgery, Univ. Montreal, Quebec; Thomas Hewlett Worger, Chiswell-street, Finsbury; Charles Thomas Dalley, Markfield, Leicestershire; Thomas Graham Bennett, Brighton; and Alexander James Low, Jersey, students of St. Bartholomew's Hospital; George Eastes, Folkestone; Samuel Forest Leach, Mile-end; William Cubitt Lucey, Bermondsey; John Jones Phillips, Towyn, N. Wales, of Guy's Hospital; John George Waters, Cheshunt; and Edward Colden, Wandsworth-road, of St. George's Hospital; William Wigmore, Oswestry, of the London Hospital; Richard Hughes, Llanddeniolen, Carmarthen, of King's College; George Henry Watson, Jersey, of St. Thomas's Hospital; John Gordon Coulter, M.D. Queen's Univ. Ireland, Belfast; George Shannon, M.D. Queen's Univ. Ireland, Magherafelt, Co. Derry; John Edwin Eddison, Leeds; David Palmer Ross, M.D. Edin., Penang, East Indies; John Roaf Ireland, Kingswinford; and Charles Carr, Newcastle.

And on the 27th inst.:—

William Cheetham, Rochdale; James Skackleton, Whitworth, Lancashire; and Charles John Denny, Aston, Warwickshire, students of the Manchester School. James Joseph Rablah, Walsall, Staffordshire; Frederick Powell, St. John's Wood; and Eugene St. Paul Hadwen, Waterloo-road, of the Westminster Hospital. Albert Egerton Hale, Nantwich, Cheshire; John Lloyd, Birmingham; and William Daniel Dunn, Devonport, of the Birmingham School. Samuel Morris, Preston, and Thomas Griffiths, Merthyr Tydfil, of St. Thomas's Hospital. Samuel Roath, M.D. Queen's University Ireland, Chesterfield, and Richard Thomas Freeman, Hatcham, of Guy's Hospital. George Henry Cresswell Cooper, Woburn-place, of University College. John Swinburn Anthony Dickinson, Norfolk-street, Middlesex Hospital. Hermann Boerhaave Holman, Crediton, Devon, London Hospital. William Battye, Plymouth, of St. Bartholomew's Hospital. Robert George Gammage, Sunderland; William Frederick Watts, Dewsbury; William Wallace Somerville, Wakefield, and George William Harrison, Whitchurch.

At the same meeting of the Court, Mr. Henry Ashlin Close, of H.M.S. *Royal Albert*, Plymouth, passed his examination for Naval Surgeon; this Gentleman had previously been admitted a Member of the College, his Diploma bearing date April 11, 1859.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, January 21, 1864:—

Warner Atkinson, 22, Harrington-square, N.W.; Frederick McNair, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ALDRIDGE, CHARLES J., M.R.C.S. Eng., has been appointed Surgeon to the St. Pancras and Northern Dispensary.

BAYLIS, CHARLES O., M.D. Aberd., has been appointed Medical Officer of Health for Birkenhead.

CARTER, R., M.R.C.S. Eng., has been appointed Resident Medical Officer to the Eastern Dispensary, Bath.

CAVANAGH, JAMES W., M.R.C.S. Eng., has been elected Honorary Medical Officer to the North Dispensary, Liverpool.

CONNOR, WILLIAM, M.B., has been appointed Medical Officer to the Royal Victoria Patriotic Asylum and Boys' Temporary Home, Wandsworth-common.

LANGDON, THOMAS C., M.R.C.S. Eng., has been elected Surgeon to the Hants County Hospital, Winchester.

OXLEY, WILLIAM, M.R.C.S. Eng., has been elected a Medical Officer of the Rotherham Dispensary, Yorkshire.

ROBINSON, EDWARD, M.R.C.S. Eng., has been elected a Medical Officer of the Rotherham Dispensary, Yorkshire.

SIMS, F., has been elected an additional Dental Surgeon to the Birmingham Dental Dispensary.

WATTS, F. H., M.R.C.S. Eng., has been appointed Resident Apothecary to Middlesex Hospital.

WILSON, J. C., M.D., has been appointed House-Surgeon to Chalmers' Hospital, Edinburgh.

DEATHS.

FEARNLEY, GEORGE, M.D., at Grove-house, Dewsbury, Yorkshire, on January 8.

HOBART, S. HENRY, M.B. Dub., at Marlborough-street, Cork, on January 16.

HONEYWOOD, JAMES, M.R.C.S. Eng., at Blackfriars-road, London, S, on January 20, aged 45.

LYE, J. BLACK, M.D. Aberd., at Castle-street, Hereford, on January 17, aged 76.

OSBORNE, JONATHAN, M.D. Dub., at Clermont, Blackrock, Dublin, on January 22.

PALK, WILLIAM, M.D., at Union, Missouri, United States, on January 1, aged 68.

REES, DAVID, M.D., at New-cross, Deptford, on January 20, aged 88.

RIND, M. MCNEILL, Deputy Inspector-General of Hospitals, Saugor-circle, at Saugor, Central India, on December 17.

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THE ELECTION TO THE COURT OF EXAMINERS AT THE COLLEGE OF SURGEONS.—The friends of Mr. Gulliver complain that, before the late election, every means was adopted which could prejudice his chance of success. They state that an active canvass was set on foot by certain supporters in the Council of Professor Partridge, and that unfounded statements were inserted in some of the Medical journals to the effect that Mr. Gulliver, not being a Surgeon to any Hospital, would probably not present himself for election, and that the contest would be between Messrs. Partridge and Hilton. We need scarcely state that this assertion did not emanate from Professor Gulliver, and had no foundation in truth. Mr. Gulliver abstained from everything like a solicitation of votes; he never opened any communication with any member of the Council on the subject, and was content that his claims should stand on their own merits. That our readers may judge what these claims were, we append a list of some of Mr. Gulliver's services and contributions to Surgical and pathological knowledge. We omit in the list his larger labours in the higher branches of animal and vegetable physiology, which are universally known, and to which our own pages have in the last two years borne ample evidence. Mr. Gulliver was a long time in charge of the General Military Hospital at Fort Pitt, performing all the Surgical operations there. For upwards of twenty years since he was never without charge, in the regular course of duty, of other Military Hospitals. He made great part of the museum at Fort Pitt and of the catalogue thereof. He had there the superintendence of numerous junior Medical officers, with whom he always maintained the most friendly relations. When he left the army, and ever since up to this date, he was engaged in a small, but active Professional practice amongst his old military connection, never seeking to extend it, because he possesses independently ample means, and is attached rather to the scientific pursuits of his Profession than to its more lucrative department. Amongst his published papers on Surgery and Surgical pathology are—"Experimental Inquiries concerning Necrosis," *Med.-Chir. Trans.*, 1836; "Discovery of the Softening of Coagulated Fibrin as a Pathological Element Distinct from Pus," *Med.-Chir. Trans.*, 1839; "Discovery of the Fatty Degeneration of Arteries, Testes, Lungs, etc., and that this Disease is the Proximate Cause of Aneurism, Sanguineous Apoplexy, and Decay of the Tissues," *Med.-Chir. Trans.*, 1843; "On the Reparation of Fractured Bones," *Edin. Med. and Surg. Journal*, 1835; "On Shortening of the Neck of the Femur in Young as well as Old People," papers in different numbers of the *Edin. Med. and Surg. Journ.*, 1836; "On Fracture of the Femur, with Inversion of the Limb," *Ibid.*, 1836; "Experimental Inquiries concerning Fracture of the Patella, showing under what Conditions Union by Bone will or will not occur," *Edin. Med. and Surg. Journal*, 1837; "On Diseased Joints in the Army Medical Museum," *Edin. Med. and Surg. Journal*, 1837; "Experimental Inquiry concerning Buffy Blood," *Ibid.*, 1845.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a General Meeting of the Fellows, held on Tuesday, January 26, James Alderson, M.D., F.R.S., Treasurer of the College, was duly elected Representative of the College in the General Council of Medical Education and Registration of the United Kingdom.

COLLEGIATE ELECTION. — At a special meeting of the Council of the Royal College of Surgeons on Friday last, Professor Partridge, F.R.S., was elected a member of the Court of Examiners in the vacancy occasioned by the decease of the lamented Joseph Henry Green.

THE UNIVERSITY OF DUBLIN v. THE KING AND QUEEN'S COLLEGE OF PHYSICIANS. — The arguments in this case in the Rolls Court have concluded, but the Master has reserved judgment. It is not likely that the decision of the Court will be pronounced for a week or ten days.

THE LATE MR. SMYLY.—The funeral of the late distinguished Surgeon took place on January 23. The remains were conveyed at nine o'clock, from the residence of the deceased in Merrion-square, to Mount Jerome Cemetery. A very large number of carriages followed the hearse. The chief mourners were Mr. Philip Crampton Smyly, Mr. Smyly, Q.C., brother of the deceased, and Mr. Thomas Franks. A large number of the most eminent members of the Medical Profession and of Medical students were present. The latter walked in procession, followed by the children of the Ragged Schools, in which Surgeon Smyly took a lively interest. The funeral service was read by the Rev. C. F. M'Carthy, and an address was delivered by the Rev. M. Day.

RETIREMENT OF SIR JOHN LIDDELL.—Sir John Liddell, the distinguished Director-General of the Medical Department of the Navy, has been compelled by advancing age and impaired health to resign the position which for many years he has worthily filled. He is succeeded by Dr. Bryson, Inspector-General at Somerset House, an officer who is well known for his contributions to the Medical statistics of the navy, and for his labours in the field of epidemiological science.

CHANGES IN THE STAFFS OF THE METROPOLITAN HOSPITALS.—Dr. Kirkes has succeeded to the vacant Physiciancy, and Mr. Holmes Coote to the vacant Surgeoncy, at St. Bartholomew's. The latter gentleman has resigned the Assistant-Surgeoncy at the Orthopædic Hospital. The offices of Assistant Physician and Assistant Surgeon to St. Bartholomew's are vacant. There is also a vacancy for an Assistant Physician at the Hospital for Sick Children, Great Ormond-street.

SCHOOL OF PHYSIC IN IRELAND.—At a meeting held on Tuesday, January 26, in the University of Dublin—present, the Rev. the Provost of Trinity College, the Regius Professor of Physic, and the three electors chosen by the King and Queen's College of Physicians in Ireland (the President, Drs. Croker and Mollan)—Dr. John T. Banks was again elected King's Professor of the Practice of Physic.

PROFESSOR HUXLEY, F.R.S. — This gentleman will resume his course of twenty-four lectures on "The Structure and Classification of the Mammalia," in the theatre of the Royal College of Surgeons, on Tuesday next, commencing with the Zoological Anatomy of Man, with especial reference to the bony skeleton and the muscles; the resemblance and difference of the pectoral and pelvic limbs; the characters and the nomenclature of the teeth; the brain and the organs of sense and voice; the organs of reproduction, and the process of development; variations of structure.—The Comparative Anatomy of the Apes and Lemurs—The Insectivora, Cheiroptera, and Rodentia—Remarks upon the Classification of the preceding groups—The Carnivora—The Ungulate Mammals—The Sirenia, Cetacea, and Edentata—The Proboscidea and the genus Hyrax—Remarks upon the Classification of the preceding groups—The Marsupialia—The Monotremata—Remarks upon the Classification of the Mammalia generally.

THE FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY.—Dr. Frederick Cock has resigned the office of Physician to this Dispensary. At a meeting of the Committee of the Dispensary, held on Thursday, January 7, Mr. Harvey in the chair, it was moved by Mr. J. L. Shuter, seconded by Mr. S. Green, and resolved unanimously, "That, in recognition of the long, valuable, and efficient services rendered to this Institution by Frederick Cock, Esq., M.D., he be elected Consulting Physician thereof."

ODONTOLOGICAL SOCIETY. — At the annual general meeting held on the 4th inst., the following gentlemen were duly elected officers for the year 1864:—*President*—Edwin Saunders, Esq. *Vice-Presidents* (Resident)—T. A. Rogers, Esq., W. A. N. Cattlin, Esq., W. Imrie, Esq., W. Perkins, Esq., G. A. Ibbetson, Esq. (Non-Resident)—C. S. Bate, Esq., Plymouth; W. K. Bridgman, Esq., Norwich; S. Tibbs, Esq., Cheltenham; Dr. Roberts, Edinburgh. *Treasurer*—Arnold Rogers, Esq. *Librarian*—J. B. Fletcher, Esq. *Honorary Secretaries* (Ordinary)—Alfred Coleman, Esq., Charles Vasey, Esq. (For Foreign Correspondence)—Thomas Underwood, Esq. *Councillors* (Resident)—W. D. Saunder, Esq., J. Sheffield, Esq., W. A. Harrison, Esq., C. J. Fox, Esq., H. T. Kempton, Esq., R. T. Hulme, Esq., J. Tomes, Esq., W. M. Bigg, Esq., F. W. Rogers, Esq., G. Owen, Esq., A. Hill, Esq. (Non-Resident) — D. Hepburn, Esq., Edinburgh; C. D. Rogers, Esq., Newbury; S. L. Rymer, Esq., Croydon; G. Buchanan, Esq., Glasgow; E. P. Parkinson, Esq., Brighton; W. Hunt, Esq., Yeovil. The President, in his address, congratulated the members on the present satisfactory condition of the Society, evinced by its numerical strength of 319 members, and the balance of £546 8s. 8d. in the hands of the treasurer at the end of the last session.

CIDER IMPREGNATED WITH LEAD.—A case of death from drinking cider which had been allowed to stand in a cider-mill that had been lately repaired with lead, is reported from Powick, in Worcestershire. Four or five persons who drank the cider were taken ill with symptoms of lead poisoning.

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At a late meeting of the Metropolitan Association of Medical Officers of Health, the following correspondence was laid before the members. There are not many persons aware that the Board of Trade has a control over the water companies:—

Offices, Maltby-street, Bermondsey, January 5th, 1864.

Sir,—By direction of the Vestry, I beg to forward you the copy of a letter which has been received from the Board of Trade, in reply to the memorial addressed to that Board in November last by yourself and other householders of the parish, respecting the quality and quantity of the water supplied by the Southwark and Vauxhall Water Company to this district. I am, Sir, your obedient servant,

J. J. Riches, Assistant Clerk.

Copy.] Office of Committee of Privy Council for Trade, Whitehall, December 26th, 1863.

Sir,—I am directed by the Lords of the Committee of Privy Council for Trade to transmit to you, for the information of the Vestry, and of the householders who signed the memorial dated 11th November last, respecting the quality and quantity of the water supplied by the Southwark and Vauxhall Water Company, the accompanying copy of a letter which my Lords have addressed to that Company on this subject.

I am, Sir, your obedient servant,

Louis Mallet, Pro Sec.

The Assistant Clerk, Bermondsey Vestry
Offices, Maltby-street, E.C.

Copy.] Office of Committee of Privy Council for Trade, Whitehall, December 26, 1863.

Sir,—I am directed by the Lords of the Committee of Privy Council for Trade, to inform you that on the 13th November last their Lordships received from certain inhabitant Householders of the Parish of St. Mary, Bermondsey, in the County of Surrey, a Memorial (copy of which is enclosed), complaining of the impure quality and insufficient quantity of the water supplied in that district, by the Southwark and Vauxhall Water Company.

In pursuance of the 9th Section of the Metropolis Water Act (15 and 16 Victoria, c. 84), My Lords appointed Captain Tyler, R.E., to inquire into the grounds of that complaint, and to report to their Lordships thereupon; and my Lords have now received from Captain Tyler his report upon the matter so referred to him, a copy of which is herewith enclosed.

Upon a consideration of that report it appears to their Lordships that the complaint of the Memorialists is well founded; and I am therefore directed, in pursuance of the 12th section of the Metropolis Water Act, 1852, hereby to give notice thereof to the Southwark and Vauxhall Water Company, and to point out to you that after the receipt of this notice the Company are, by the 13th section of the same Act, required, within a reasonable time, to remove the grounds of such complaint.

I am to request that the receipt of this notice may be acknowledged, and to state that my Lords will be glad to be informed of the steps which the Company propose to take in the matter.

I am, Sir, your obedient servant,

(Signed) T. H. Farrer.

The Secretary, Southwark and Vauxhall Water Company, Battersea.

The Wear and Tear of Medical Life.—For the most part, young Medical men commit a great mistake on first starting. They overhouse themselves. Their establishment eats them up. They have not the courage to live in a small way. Then they marry too early. It is a virtue on their part, and speaks volumes in their favour; but house expenses are certain, and Professional returns uncertain. Children must be fed: servants must be paid. The wife likes the habits of a lady, decorates her rooms, and receives her friends; while her husband lives in the streets, that he may sleep in a mansion. For a mansion it is to him, that vast pile of bricks and mortar, for which he pays an enormous rental, and which he has furnished beyond his need. For the sweets of life are unknown to him. He toils only for his daily bread. He has no time for visiting. He never can receive properly. His occupations unfit him for doing so. His real post, and the one in which he shines, are the sick chambers of the wealthy and the hovels of the poor. Add to these eccentricities and burdens an equipage—a shining, well-turned-out equipage. This is the climax of folly, that has brought many a general Practitioner to the ground.—*Hingeston's Topics of the Day.*

Juvenile Suicides.—During the past week, two lads, one aged 12, the other 15, have been charged before the police magistrates with attempts to commit suicide. The younger was found suspended by the neck; the elder tried to poison himself with white precipitate. In neither case was any cause or provocation assigned for the act. The lad of 12 had made a former attempt on his life, and for this reason was sentenced by the magistrate to a week's imprisonment. The most probable theory to account for such cases is, that they are the result of the too general publication of cases of similar crime by the cheap press. Fill the imagination and stimulate the imitative faculty in the young, weak-minded, and morally uneducated, with recitals of crimes, and they will be in as much danger of reproducing them as sheep are of following each other over a precipice. We believe this to be the true explanation of many so-called cases of suicidal and homicidal monomania.

Worse than London.—New Yorkers were tormented yesterday by one of those terrible dust-storms that make winter dreadful. Whether the election for Mayor has anything to do with it, we cannot say; but the fact that dirt has of late rapidly accumulated in the streets is manifest. Made thoroughly dry by the frost, and pulverised by hoof and wheel, it is ready for a rise at the first puff of windy provocation. Yesterday we had a crazy young tornado lying around loose, and about ten thousand tons of dirt were hoisted into the air, and tossed hither and thither all day and night, filling the town with a cloud of the consistency of a shoddy blanket, obscuring the sun, and making gaslight needful at mid-afternoon. Going abroad was like wading a slough; blinded and choked by dust, one stumbled along at risk of his neck, until the wild sweep of the hurricane around some exposed corner for a moment tore the veil, and let the sickly daylight upon his weeping eyes; and then he saw a close likeness to the sea in a great storm, as the billows of dirt swashed against the brick shores, and fell back in foul spray upon the imbedded walks. But why attempt to describe the indescribable? At night the storm was still worse; but the blessed darkness made us oblivious, in some degree, to the affliction. If the sweep of wind has been across the city, Boole is relieved of a heavy job, although the harbour commissioners may have to dredge the East river, to remove the enormous deposit. The only storm at all comparable with this was the storm of hard words over blinded eyes, sneezing noses, coughing throats, and spoiled clothes, got up by a million wrathful sufferers.—*N. Y. Tribune*, Dec. 10.

Earthquakes.—"Amongst the many natural gifts referable to geographical position and geological structure with which Great Britain has been so lavishly endowed by Providence, none has been more important (though little recognised) in permitting our national development, than our immunity from frequent or severe earthquakes. We may in this respect, but in a different sense from him of old, 'thank God that we are not as other men are.' A single shock, no greater in violence than those which occur almost monthly within less than 2000 miles of us (in the Mediterranean Seismic Bands)—one, namely, the velocity of whose wave particle should be no more than twelve to fifteen feet per second (not so fast as we sometimes move in a carriage), would not only split and prostrate minster, spire, and column, but would leave Manchester, Liverpool, or London, mountainous heaps of brickdust and rubbish. Terrible as are the consequences of such utter overthrows in the cities of other lands, our artificial conditions would add new horrors to the overturning of our own; for, besides the conflagration that almost always succeeds the downfall, ignited by the buried fires or lights, we should have superadded, the falling in of great sewers, with the overflow of their polluted streams amidst the ruins; the damming, more or less, of great tidal rivers like the Thames, by falling bridges; burst and spouting water mains; gas escaping and exploding in all sorts of cavities amidst these overground 'goafs;' viaducts and iron bridges brought to the ground by their own inertia; tunnels collapsed; coal and saltpits and mines ruined; roof and floor in a moment brought together;—complications of horrors such as can be even but inadequately imagined. Happily there is little chance of such a catastrophe. Enough has already been ascertained as to the distribution in space over the earth's surface of Seismic or earthquake energy, to admit of our affirming the extreme improbability of the occurrence of any *great* earthquake in the British Islands; but there is no physical reason why such an event might not occur to-morrow."—Mallet on "Earthquakes;" *Quarterly Journal of Science*, No. 1, January, 1864.

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NOTES, QUERIES, AND REPLIES

He that questioneth much shall learn much.—*Bacon.*

The termination of Dr. Simpson's Lecture on Acupressure is unavoidably postponed until next week.

The Medical History of Lynn will appear in one complete notice next week.

We can only publish the letter of "Justitina" on the condition that he will append his name.

A Subscriber.—The small edition of the new British Pharmacopœia will not be published until next month. The contents will be the same in both; the price of the large edition is 10s. 6d.; of the small, 6s.

Mode of Heating Turkish Baths.—A correspondent of the *Northern Daily Express* writes:—

"I have often heard the fear of fire in Turkish baths expressed, and, from the faulty manner in which they are constructed, I do not wonder at it. Many such fires have occurred in different parts of the country, and it will be recollected that about three years ago a fire occurred in the bath of your Infirmary. Since then that bath has been reconstructed on a new, safe, and economical principle, which I shall presently refer to. The plan adopted in most of our Turkish baths is the 'Hypocaustum' of the Romans, that is, a series of flues ramifying about under the floors, by which a baker's oven sort of bath is obtained. These flues cause everything in their neighbourhood to get red hot; hence great danger is necessarily engendered from fire, and not only so, but danger to life and limb of the bather likewise. Many accidents of the latter description have occurred. One case occurs to my mind as having taken place in the Infirmary, in which a bather slipped and fell down, and so severely burnt himself as for a time to put his life in danger. But this is not all, for the ventilation in all these hypocaust baths is most wretched, and frightfully injurious to bathers, and the poisons generated on the hot floors are of the most noxious description. There ought to be in all these baths a constant stream of hot fresh air flowing in, and proper provision made to ensure the constant flow out of the foul air into the furnace below, and, as far as may be, cool floors, and a good but subdued light. All these are now available in the method of heating and ventilating, patented by Dr. Bolton, and which is fully set forth in a small pamphlet published by Ward and Lock, of London. Many baths have been altered or built on such a reasonable and logical method, among which I may mention your Infirmary bath, and the bath recently completed at Colonel Perkins', Birtley Hall. I append a quotation from the specification of Dr. Bolton's patent, in the Patent Office, so that your readers may see that it is possible to get in a hot-air bath something very different from fire and foul air:—'The fresh respirable air travels in an opposite direction to the fire heat and smoke in separate and distinct flues, in the manner of the arterial and venous circulation of the blood. The air is heated by being made to travel throughout its course in an opposite direction to the smoke current, the closest contiguity being maintained between the two currents. The effect of this is, the abstraction of caloric from the smoke throughout its course, and the prevention of smoke escaping into the fresh air duct; so that, in the event of leakage, air will always enter the chimney, instead of smoke escaping into the air duct.'"

Atropine Gelatine Paper.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the *Lancet* of the 16th instant there appeared a notice of a new mode of applying some external agents to the eye which I have lately brought before the Profession, in which my claim to its introduction was not in any way recognised. I then addressed a letter to that journal, which was not allowed to appear, and therefore I shall be much obliged if you will permit me to publish it in the *Medical Times and Gazette.*

The receipt of my letter was briefly acknowledged among the notices to correspondents in the *Lancet* of the 23rd instant. The editors remark that Mr. Hart and I have "followed a pretty parallel course," but they acknowledge my priority "of publication," which certainly is indisputable.

I am, &c. J. F. STREATFEILD, F.R.C.S.

15, Upper Brook-street, W., January 25.

"TO THE EDITOR OF THE LANCET.

"Sir,—My attention has just been called to an article in the last number of your periodical (Jan. 16th). In it the reporter of Mr. Hart's cases at St. Mary's Hospital has made an error which may be easily explained, and which calls for some notice from me. He has evidently reported some remarks made by Mr. Hart in reference to an article recently published by me, as if they referred to Mr. Hart's own investigations. The communication to which I am alluding is in the *British and Foreign Medico-Chirurgical Review*, page 281, published on the 1st of January in the present year.

"I am glad to learn from Mr. Hart's remarks that he has found the gelatine so great an improvement upon the paper, that my 'new mode of applying some external agents to the eye' was quoted by him in almost the same words, and at any rate in the sense, in which I had recommended it in the *Review*. In the following paragraphs, for instance, I have said, 'It has occurred to me that an improvement might be made if we could secure, along with the convenience and efficacy pertaining to the paper, some vehicle which would not need to be removed from the eye after it had been applied and the desired result had been gained. I may allude to the alarm felt by some patients at any investigation of their eyes, even if only to remove the scrap of paper that has been introduced, and to the trouble sometimes found in removing it when it has got up beneath the upper lid. In order to obtain what I wanted, I first tried what is called "wafer paper," but this is brittle when dry, and loses all consistence when wet, so that it becomes unmanageable as soon as it is moistened, and, moreover, the pulpy substance in the eye, if not washed out, might irritate. I am now employing gelatine, rolled out in sheets of the thickness of thin writing-paper, and imbued with a definite proportion of sulphate of atropine or any other salt required. This retains the advantages of, and only requires the same mode of application as atropine paper, but *it need not be removed from the eye.* It is soon dissolved in the tears, and acts in every way well,' etc.

"Other errors on the part of the reporter could be pointed out; for instance, Mr. Hart cannot have represented the matter as if I had expected to find the 'wafer paper' soluble.—I remain, etc.

"J. F. STREATFEILD.

"P.S.—I must claim for Mr. Squire the merit of having first prepared the gelatine imbued with atropine. It was suggested by me to him about two months ago—I cannot exactly fix the date; but an invoice which he has sent to me, dated December 7, shows that it was then delivered and supplied to me as I now use it, and have since supplied several of my friends who were willing to try it experimentally.

"January 16, 1864."

Ice to the Spine.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In Swinhoe's "Narrative of the North China Campaign of 1860" occurs the following passage:—

"Among the Chinese themselves, it [ice] is much used to lie upon during the heat of the day. The ice for this purpose is crushed and scattered over the stove-couch, whereon it is then covered with a mat, on which the native casts his body as soon as he has divested himself of superfluous integuments; and thus released, refreshes himself with a cool siesta until the sun partially withdraws his mid-day heat, and enables man again to renew his energy."—Pp. 188, 189.

In a paper published in the *Boys' Own Magazine*, on "Alpine Ascents," it is stated that, "to refresh themselves, the guides thrust snow-balls down their backs—a means of refrigeration which does not appear to have any ill effect upon them." This practice is said to be resorted to when the climbers are at great heights.

A gentleman with whom I am acquainted, the son of a London Physician now deceased, informed me that, having suffered from acute rheumatism and pericarditis, he has been since peculiarly liable to palpitation of the heart and easy excitement of the vascular system; that when in Switzerland some time ago, he attempted the ascent of one of the mountains, and was seized with a violent palpitation, with great general excitement of the circulatory system and extreme distress, and that in this condition he was stripped of his coat by his guides, and made to sit with his back towards a large fire, which speedily and completely relieved him.

These facts are very curious instances of long-established customs which are in harmony with Dr. Chapman's theory and practice of applying ice and heat to the spine, which are proved thereby to have a sound empirical basis. I hope you will think them worth registering in the *Medical Times and Gazette.* I am, &c.

January 11. M.

Alcohol and its Compounds in Typhus Fever.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As this subject has been brought somewhat prominently before the Profession of late in the *Medical Times and Gazette*, and as the facts relative to it are of great importance to the Profession, we have to regret, even at the beginning of the inquiry, that some abler penman had not taken up the subject, in order that justice might have been done to it. Be this as it may, we think we have seen enough to convince the most sceptical that there can be no mid-way with so powerful an agent as alcohol; it must either be beneficial to our patients or hurtful, and, if hurtful, we must all acknowledge that it is still abused to an enormous extent by our Profession; for, as one of the writers in a late number of the *Medical Times and Gazette* somewhat sarcastically remarked, "some Practitioners give alcohol almost in every disease, from a fever to a broken leg." As we are not among those who believe that alcohol is useful in all diseases or under all states of those diseases, perhaps space will be granted us to give our opinion and experience; and, in doing so, we will not strive at fine writing, as we have a more important object in view; nor will we enter into the chemical labyrinth of the discussion as to whether alcohol is food to the system or caloric—whether it passes out of the system unchanged—or whether, in its ethereal permeation of the organism, it have a preservative effect on the tissues, retarding waste—preserving nerve force. These are knotty points, and we are not far from the truth when we say that, were we so baffled with the inquiry as to ask for authority, we could get many great names to support each and all of these opinions; and truly, when this is the case, there is little use in quoting authority. We, therefore, choose to take common observation for our guide, and would ask our Professional friends if they have not all observed that, when a very abstemious man, say up to twenty-five or thirty years of age, begins to indulge moderately in alcoholic liquors, he begins, not long thereafter, to become more bulky in appearance, and to weigh heavier; but though this be a part of common observation, we do not mean to say, or even to think, that this extra amount of fat or flesh is worth much, or, in fact, worth anything in keeping up the vital powers in a healthy person—in all probability it is of a vitiated kind, and is more likely to clog those powers than assist them. Still it is evident that, whether alcohol pass out of the system unchanged or changed, it has the power of making a change on it, for there is no gainsaying the fact, that people do get fatter under the influence of alcoholic compounds. With regard to typhus fever, we think the Profession are agreed that, when once fairly established, it will run a definite course despite of remedies.

In treating a case of typhus fever, then, our principal aim seems to be to put our patient in such favourable circumstances with regard to quietude, food, air, cleanliness, and medicaments, as will assist in averting the tendencies to death. These tendencies are a changed and alkaline state of the blood, with unhealthy secretions and excretions, congestions, inflammations, putrescences, exhaustion of the vital powers, and failure of the heart's action; hence the propriety of administering emetics, mild laxatives, diuretics, acids, and alcohol. But we do not give alcohol to support the patient's strength in the common acceptation of the term, because we have far better substances for doing that in beef-tea, chicken-soup, etc.

We give alcohol to support and assist the action of the weakened heart. We give it as a cardiac stimulant to support that quick ebbing of the vital stimuli so characteristic of typhus fever of an adynamic type; and this is the rock on which our Profession still split. Many among us still persist in giving large quantities of alcohol nearly all along in typhus fever by way of keeping up the patient's strength;—an old fallacy, which the sooner the Profession discard from their minds, the better it will be for their patients. We insist that alcoholic compounds should only be given to support the failure of the heart's action; thus given they may, like faithful sailors at the force-pump, keep the shattered bark afloat till it has reached its safety haven—till a crisis has taken place. But does alcohol really support the failure of the heart's action?—for I am afraid we have as yet been begging the question. All of us, then, must concede the fact, that the beat of the weakened heart becomes stronger, and the rhythm more regular or natural, under the influence of alcohol. And we also know that more warmth is diffused over the whole body, and that the capillary vessels of the skin assume a more healthy and natural appearance. We have seen the livid or pink-like capillaries of the skin in a case of scarlet fever assume a bright scarlet colour in a few hours under the use of alcohol. We to a certainty know, then, that under the influence of alcohol the heart becomes more powerful in propelling the arterial current to all parts of the system, which must of necessity tend to prevent congestion or stagnation of blood in those parts, and must, at the same time, tend to keep up their nutrition, and must, consequently, assist in warding off the beginnings of death. We may rest assured, then, that alcohol given in disease at the proper time is no myth; and it is, therefore, of great importance to watch carefully for that time, that we may not be too long in beginning to give stimulants, for if we allow our patient to sink very low before we begin to give them, ten to one if the vital powers of the system will react under their influence. Our practice has been to begin to give stimulants in typhus fever when the pulse has begun to get weak at the wrist, lifting quickly under the finger, and, along with this, when the first sound of the heart has begun to get weakened in force and shorter in sound. We are only reiterating the observation of others, then, when we say, that whenever the pulse becomes small at the wrist, lifting quickly under the finger, and, along with this, the first sound of the heart begins to fail, is shorter than natural, less audible to the ear, the two sounds, as it were, nearly combined, but the second louder and more distinct than the first, we will do well to give stimulants, whatever our preconceived opinion of them be.

I am, &c.

THOS. DOWNIE, M.D., L.R.C.P. Edin. by Exam., L.S.P.S. Glasg.

Blantyre, January 14.

Alcoholic Stimulants in Fevers.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Mr. Harding's further insinuations upon the treatment of my case of typhus fever, and upon the principles involved in that mode of treatment, demand additional reply.

First, with regard to the case itself. I have submitted his own report of it to Mr. Higginbottom, F.R.S., of Nottingham, who, in a letter to me, says:—"Were I to express an opinion upon your case, I should state that your patient died from exhaustion from the administration of wine and brandy, and this from my experience of half a century." This opinion was unsolicited; I did not ask for it.

Secondly, with regard to the principles upon which I have acted. It is rather amusing to see the cool way in which Mr. Harding ignores the views of Mr. Higginbottom, supported as they are by his experience of half a century, and corroborated by many intelligent members of the Profession. If every new truth is to be set aside because "it is contrary to the received opinions," we shall soon do away with all improvements in our art, and there will be an end of all further progress. Is the condition of Medicine so perfect as to need no improvement? Is the treatment of typhus fever by port wine (with an average mortality of about 20 per cent.) so satisfactory that a plan which promises more success is not needed? There is as great a truth in the non-alcoholic treatment as there is in the discoveries of Harvey and Jenner; and let me remind Mr. Harding that they, in their day, were contrary to the "received opinions." They had the whole mass of the Profession against them. Medicine abounds with such instances. A very considerable portion of our progress has been made by the unteaching (so to speak) of established error. The history of Medicine for hundreds of years proves my assertion. The truth is no less true, although Mr. Harding may not see it.

The non-alcoholic treatment of typhus has now been an established fact for years. It has been practised by many members of the Profession with marked success, notwithstanding his assertion of only one; and it is a remarkable fact, that the only cases of exhaustion that have occurred under this system have been those in which wine has been administered surreptitiously. Mr. Harding is evidently not in a position to judge of this plan, since he has never tried it. The great mass of the Profession have been educated in the opposite school, and they are naturally slow in changing their opinions. Some of our best discoveries have been made by obscure individuals, with the whole mass of men against them. And that orthodox systems in Medicine are not always to be implicitly relied upon there is ample evidence to prove in the history of the last century. Any one advocating the advanced views of Dr. Bennett, of Edinburgh, a few years ago, would have been looked upon with equal "horror and astonishment" to the non-alcoholic Practitioner of the present day.

Mr. Harding very correctly traces the course of alcohol into the stomach, where it is absorbed without digestion, and into the blood-vessels, where, presently coming into contact with the heart, it excites it to increased action. But its operation does not stop here. Did it never occur to him that this increased action was followed by a corresponding depression very speedily,—a peculiar state of alcoholic exhaustion? What is the essence of delirium tremens but a state of nervous exhaustion from the use of alcohol? Besides, in fever, alcohol poisons the already-polluted stream of life. This is only increasing the mischief; to poison and depression it is adding poison and depression. I suppose this is acting upon the mistaken homœopathic law of "similia similibus curantur." Well may Mr. Higginbottom call port wine an "exhausting stimulant." It is highly probable that the port wine is the real exhausting influence in many cases, and not altogether the disease. Vitalised blood is the true stimulant of the heart; and, in typhus, our chief object should be to promote its renewal by the ingestion of true nutriment, which forms blood. All the brandy in existence will never, under any circumstances, make one drop of blood. The true vital stimuli are, fresh air abounding with oxygen, and nutritious food; and there is a remarkable difference between the action of these and alcohol, insomuch as they do not produce exhaustion or narcotism. Quinine is an infinitely better medicine in fever than alcohol, for it acts as a true tonic, whose effect is lasting, while the effect of the latter is transitory and exhausting.

That alcohol is a narcotic in very small doses is shown by the fact, that a glass of ale will often make a person sleepy (especially if the sensibility of the nerves has not been deadened by its frequent use). It is often used for this purpose, as a common expression is—"I could not sleep without my glass of ale." In the case of opium, which is a type of the narcotic class to which it belongs, a stimulant operation precedes the sedative; so it is with alcohol, but the stimulant property is very transitory; exhaustion and narcotism soon follow. The term "stimulant," in its true sense, is not applicable to alcohol, seeing that its action is widely different to the true stimuli.

There is a fearful amount of moral and physical ruin resulting to mankind from this Medical use of alcohol. Too many cases of drink-produced woe, both within and without the pale of the Profession, are traceable to Medical advice in the use of alcoholics. This is perfectly unjustifiable, since ample experience has shown the use of them to be unnecessary. The diseases are exceptional, and very few in the whole nosology, in which "drink" is not the almost universal prescription both of the most eminent of the Faculty and of the public. One would almost think that it was only necessary to drink so much brandy to be free from every disease. Dr. Carpenter, in his "Human Physiology," says that "this indiscriminate use of alcoholics by the great mass of the Profession is one of the greatest pieces of quackery of the day."

Mr. Harding lays much stress upon the dose of alcohol, and insinuates that small doses must produce an altogether different effect to large ones. I beg to inform him that the effect varies only in degree, not in direction. A large piece of beef or bread is just as much a nutriment as a small piece. The difference is only in quantity. A small dose of alcohol is just as much a poison as a large one. The difference is in quantity, not in quality. Thus, Dr. Edward Smith, F.R.S., in 1859, said: "I venture to affirm that, for all medicinal and dietetic purposes, the dose (alcohol) only affects the degree, and not the direction of the force. Poisoning may differ widely in degree, according to the quantity of the poisonous agent. In the case of the pestilential poisons, it may pass from an almost imperceptible effect, up through the various degrees of intensity, until it culminates in the highest degree, the disorganisation of death." What unprejudiced man will say the smaller quantity is any less a poison?

Independently of the exhaustion of the nervous system which must speedily follow the administration of alcohol, it carbonises the blood, and thus renders the system liable to the action of this additional narcotic influence.

Mr. Harding has entirely misinterpreted M. Baudot's experiments. They amount to no proof at all. His inferences, as Dr. F. R. Lee says, are "mere assumptions from a negation." Lallemond, Perrin, and Duroy never professed to collect the whole quantity of alcohol ingested. No instrument in existence will collect the whole quantity, after being mixed up with the blood and tissues. Besides, M. Baudot is bound to collect the products of the decomposition of alcohol, aldehyde, acetic acid, and water; and this he has entirely failed to do. Any person may prove the elimination of alcohol from his person after drinking, by the sulphuric acid and bichromate of potash test. The truths of abstinence have not been in the least injured by these experiments. Can Mr. Harding not smell the alcoholic-tainted breath of one who has been drinking? Here is another plain proof of the elimination of alcohol. Nature is not so inconsistent as to eliminate one portion of a poison, and then to turn round upon itself and appropriate the remainder as food.

I admit the primary action of alcohol as an exciter of the nervous system, a so-called "stimulant," but this action is so speedily followed by exhaustion, as to render alcohol a most undesirable medicine in cases of nervous prostration from disease. This exhaustive action of alcohol has been too little thought of. In the treatment of fever, let the stimuli of a more permanent character be used, such as are not followed by exhaustion or narcotism. Herein we differ.

The facts—the experiments that I quoted in my last letter have an important bearing upon the subject, since it is by the action of substances in health that we have to a great extent ascertained their *modus operandi* in disease. No one can satisfactorily use medicines without knowing their action in health. As a general rule, a poison will poison more readily in a case of nervous prostration from disease than in robust health; and I think that 5ss. of Scheele's prussic acid would more readily extinguish life in a state of nervous prostration than in health, and the same with many other poisons. The inference that Mr. Harding has chosen to draw from my statement, belongs entirely to himself. I am not responsible for his inferences. I may here remark that there is not the least analogy between the cases of alcohol, strychnia, and opium. These two latter are useful medicines, whose value no one disputes. Many dispute the utility of alcohol. Besides, strychnine and opium are never used both as food and medicine for every conceivable complaint as alcohol is.

There are many Medical men, to my own knowledge, who are practising upon abstinent principles, and who have not appeared in this discussion. As much as ten years ago a London Surgeon of fifty years' standing in the Profession strongly advised me to make trial of these principles.

Mr. Harding seeks information about the treatment of parturients exhausted by hæmorrhage. He will find much information upon this subject (probably new to him) in the writings of Mr. Higginbottom, F.R.S., to which I refer him.

Mr. Harding seems to have modified his views since his last letter from a condition "of perfect horror and astonishment at any Practitioner treating disease, and especially fevers, without alcoholics." He now endeavours to set aside the experience of Mr. Higginbottom upon the gratuitous assumption, "that the cases were of an inflammatory type, not requiring stimulants." Surely the cases have not been all alike happening, as they have done, over a period of fifty years? Mr. Harding again asserts that "the experience of one man ought not to be set against the whole Profession." It is not a case of one man; there are many. And, perhaps, they belong to the reflecting few upon this alcoholic subject. Here is another discrepancy in Mr. Harding's assertions. It is a very short time ago that he denied the opinion of the Profession was divided upon this matter.

I fear that there are few, very few cases in the records of Medicine in which alcohol has cured *per se*. It is highly probable that there are none if the truth could be known.

From the new volume of "Braithwaite's Retrospect," just out, I make the following extracts from a paper, by Dr. J. Henderson, as bearing upon this matter:—

"*Typhoid Dysentery.*—Typhoid symptoms commence within a few days, along with great prostration and brown tongue. *Wine, brandy*, ammonia, camphor, and opium seemed, in many cases, useless. Quinine, when retained, appeared to do good. As there is increased alkalinity of the

blood, with alkaline urine, Dr. Henderson gave hydrochloric acid, along with bitter tonics and laudanum, with great success. The use of same acid in all cases of fever, attended with low typhoid state, will be found an admirable adjuvant to other modes of treatment."

I will conclude this letter with one or two extracts from Mr. Higginbottom's writings, which I may equally commend to Mr. Harding's serious consideration:—

"Alcohol in every form may be dispensed with in Medical and Surgical practice, and is not required in a single disorder or disease."

"I should consider myself criminal if, in any case, I again recommended alcohol, either as food or as medicine."

The following extract is particularly applicable to Mr. Harding. Let me especially call his attention to it:—

"When a patient is in a sinking state from disease, and when a Medical man has thought an 'alcoholic stimulant' absolutely necessary to snatch the patient from death. In this case the great danger is that such a stimulant will extinguish the small spark of life remaining, and that the patient will be destroyed,—it was truly said of the Brownonian system, that Dr. Brown had made no provision in his system for the recovery of exhaustion arising from the effects of taking alcoholic stimulants."

I am, &c.

Stourbridge, January 12. R. L. Bayley.

NEW COLLEGE, OXFORD, CHORAL SCHOLARSHIPS.

An examination for the purpose of electing two Choral Scholars will be held on Tuesday, February 16 next.

The duty of the Choral Scholars is to take part daily in the Chapel Service, which is Choral, as in Cathedrals.

The Scholarships are of the annual value of £100, inclusive of rooms and tuition, and are tenable for five years, a power being reserved to extend the term.

The Choral Scholars are on the same footing, and enjoy the same privileges, as the other Scholars of the College.

It is particularly requested that no one will offer himself as a candidate who does not possess a good Alto or Tenor voice, and a facility of reading Church music at sight.

A candidate must also be qualified by a classical education to proceed with the regular studies of the University.

Candidates should be not less than eighteen, nor more than twenty-two years of age.

Certificates of birth and baptism, and testimonials of character, must be sent before the day of examination to the Warden, from whom also may be obtained a form to be filled up by the candidates.

New College, Oxford, January 22, 1864.

COMMUNICATIONS have been received from—

Mr. W. Colles; Dr. H. M. Tuckwell; Professor Rolleston; Mr. Thomas Orton; Dr. R. Dundas Thomson; Dr. Charles Kidd; The Western Medical and Surgical Society of London; Mr. R. J. Rogers; Epidemiological Society; Anthropological Society of London; Apothecaries' Hall; Justitia; Mr. Robert Reed; Mr. Brittlebank; Mr. Charles Keele; Mr. D. W. Parsons; Dr. J. Whitehead; Mr. F. Manisty; Mr. Robert Frith; Mr. Beynon; Mr. J. Pritchard; Dr. Henry Roome; Mr. J. Hadden; Dr. R. P. Walsh; Mr. W. Barber; Dr. Ritchie; Mr. John Higginbottom; Harveian Society of London; Royal College of Physicians, London; Medical Society of London; Dr. T. Downie.

BOOKS RECEIVED.

The Teeth in Health and Disease: with Practical Remarks on their Management and Preservation. By Robert T. Hulme, M.R.C.S., F.L.S., etc., etc. London: H. Baillière. 1864. Pp. 236.

*** The author of this little work is already favourably known to the Dental Profession by several original papers and lectures which have appeared in the *Dental Review*, and to the Medical as the translator of Moquin-Tandon's work on "Medical Zoology." The present treatise, although written in a popular manner, is, in reality, a very fair epitome of the chief facts relating to the anatomy and physiology of the teeth, and a sensible digest of present opinions as to the nature and treatment of their diseases and deformities. The section on the treatment of caries contains some good hints on the preparation of the cavity of the decayed tooth for stopping. In many unpromising cases, Mr. Hulme believes that, by adjusting a temporary stopping, *e.g.*, one made of cotton, with a solution of mastich in spirits of wine, and renewing it from time to time for a longer or shorter period, thus arresting the progress of the disease by preventing the access of the fluids of the mouth, sufficient time is given for nature to repair to a certain extent the injury by the formation under the decayed layer of new dentine, which will ultimately bear a permanent stopping. By this process the operation of opening the pulp cavity, and destroying the pulp before stopping, is avoided. "There can be no question," the author writes, "if it is possible to preserve the pulp and then stop the tooth, that such a tooth is in a far healthier condition than one in which the interior of the crown and the fang is filled with gold or any other foreign material. I am satisfied that many of the teeth which have been treated by destroying the pulp might, under another plan, have been preserved without sacrificing this essential portion of the organ. So long as there is a layer of dentine existing over the pulp, as a general rule it should never be removed." The author also has some good remarks on the treatment of caries of the milk teeth. He insists on the propriety of extraction in advanced cases, and on the error of allowing the tooth to remain a constant source of pain, gum-boil, and ill-health. On the whole, we think Mr. Hulme has performed well the difficult task of producing a book sufficiently popular in style to enlist the favour of the general reader, whilst its contents are quite worthy the attention of members of his own Profession.

The Medical and Surgical Reporter. Philadelphia. October and November, 1863.

*** Besides the information contained in this publication, several inducements are offered to subscribers. The London *Lancet* is given at a reduced price, and vaccine virus gratis. Any one obtaining fifteen new subscribers, "with the money for a year in advance, will secure to the subscriber obtaining them a splendid pocket case of Surgical instruments, or add half a dozen volumes of standard Medical works to his library, with no expense for transportation." "In brief," says the Publisher, "send money; send United States money if you can, but send money."

Observations on Defects of Sight in Brain Disease, and Ophthalmoscopic Examination during Sleep. By J. Hughlings Jackson, M.D., etc., etc. Pp. 15.

*** A reprint of some excellent cases from the Royal London Ophthalmic Hospital Reports. Some of them have already appeared in our columns. Dr. Jackson does not approach the subject in a specialist spirit, but "as a help to the study of diseases of the nervous system."

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 23, 1864.

BIRTHS.

Births of Boys, 1063; Girls, 1013; Total, 2076.
Average of 10 corresponding weeks, 1854-63, 1794·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	1007	1173	2180
Average of the ten years 1854-63	690·3	699·3	1389·6
Average corrected to increased population..	..	..	1529
Deaths of people above 90	..	..	18

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	5	4	5	1	19	15	5
North ..	618,210	..	6	17	2	11	26	4
Central ..	378,058	1	5	5	..	15	9	1
East ..	571,158	1	5	14	..	15	16	2
South ..	773,175	5	14	32	4	17	22	7
Total ..	2,803,989	12	34	73	7	77	88	19

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·876 in.
Mean temperature	44·5
Highest point of thermometer	53·2
Lowest point of thermometer	32·5
Mean dew-point temperature	41·7
General direction of wind	S.W.
Whole amount of rain in the week	0·47 in.

APPOINTMENTS FOR THE WEEK.

January 30. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m. Royal Free Hospital, 1½ p.m.

February 1. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital 1½ p.m.; Samaritan Hospital, 2½ p.m.

Epidemiological Society, 8 p.m. Dr. Camps, "On the Hygiene and Epidemiology of the Indian Army, based on the Report of the Royal Commission."

Medical Society of London, 8½ p.m. Clinical Discussion.

Odontological Society, 8 p.m. Meeting.

Royal Institution, 2 p.m. General Monthly Meeting.

2. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Anthropological Society of London, 8 p.m. "On the Construction of the Upper Jaw in the Skull of a Greenlander." By Professor C. G. Carus, with Notes by C. Carter Blake, Esq., F.G.S. James Reddie, Esq., F.A.S.L., "On Anthropological Desiderata, with Reference to the Origin of Man."

Pathological Society, 8 p.m. Meeting.

Royal Institution, 3 p.m. Professor Tyndall, F.R.S., "On Experimental Optics."

3. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Middlesex, 1 p.m.; London, 2 p.m.

4. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.

Harveian Society of London, 8 p.m. Mr. W. Adams, "On the Pathology and Treatment of Fracture of the Patella."

Royal Institution, 3 p.m. Professor Tyndall, F.R.S., "On Experimental Optics."

5. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Meeting of the Council.

Royal Institution, 8 p.m. J. A. Froude, Esq., "On the Science of History."

Western Medical and Surgical Society, 8 p.m. Mr. J. R. Lane, "Sequel of a Case of Vesico-Uterine Fistula, in which Pregnancy occurred after Closure of the Os Uteri by Operation."

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ORIGINAL LECTURES.

CLINICAL LECTURES
ON
THE DISEASES OF WOMEN,

By J. Y. SIMPSON, M.D., F.R.S.E.,
Professor of Medicine and Midwifery in the University of Edinburgh.

ON ACUPRESSURE.

(Concluded from page 85.)

THE HIGH MORTALITY FROM SURGICAL OPERATIONS — IS IT IN ANY WAY THE EFFECT OF THE LIGATURE OF ARTERIES?

The mortality attendant upon all the larger and severer varieties of Surgical operations is something quite striking and startling.

Out of 512 amputations of the limbs, that is to say, of the thigh, leg, arm, and forearm, performed in the Parisian Hospitals, from 1836 to 1841, and collected by M. Malgaigne, 281 proved fatal. In other words, 55 out of every 100 thus operated upon died; or more than 1 in 2. (*Archives Générales de Médicine*, tome 58, p. 389.)

Out of 2046 similar amputations of the limbs occurring in British Hospitals and private practice, collected by Dr. Fenwick, 524 proved fatal. In other words, about 26 in every 100 thus operated upon died; or 1 in 3·9. (*Monthly Journal of Medical Science*, for October, 1847, p. 238.)

Dr. Fenwick has collected together from civil and military practice in Great Britain, America, and France, a list of 4937 amputations of the limbs. Of these patients 1565 died; or 32 in 100; or 1 in 3·15. "The assertion," adds Dr. Fenwick, "that one person out of every three who suffers an amputation perishes, would have been repudiated a few years ago as a libel upon our Professional value; and yet such is the rate of mortality observed in nearly 5000 cases."

The latest and largest individual collection of the statistics of amputations of the limbs which I am acquainted with, does not display any great difference in the general result. Out of 291 amputations of the thigh, leg, arm, and forearm performed at Guy's Hospital, London, and published in 1859 by Mr. Bryant, 76 proved fatal, making a mortality of 26 in 100; or 1 in 3·8.

Far less severe and extensive operations than the dismemberment of a limb are followed by no small mortality when they include the ligature of a large artery. The Hunterian ligature of the femoral artery involves a clean incised wound about three inches only in length, and, perhaps, an inch in depth. Yet out of 204 cases, collected and published by Dr. Norris, in which the femoral artery had been ligatured by the Hunterian method, 50 died, or nearly 25 in 100, or 1 in 4. In 188 of these cases the operation was performed for the cure of aneurism, and 46 of these died, or 24 in 100, or nearly 1 in 4. (*American Journal of Medical Science*, October, 1849, p. 324.) Perhaps some of my Surgical brethren would be inclined to argue stoutly in reference to these statistics of the fatality attendant upon such a small operation as the ligature of the femoral artery, that the mode in which the operation was performed greatly influenced the result; that it would be much less fatal if greater care were taken not to disturb the ligatured vessel from its connexions to any degree above what was absolutely necessary to put a small round silk thread around it. But if this argumentation be true—as I believe it is—then it also follows, that if in this operation the vessel be much isolated or detached from its sheath—if a large or broadish ligature be used—or if a double ligature be adopted, as has been sometimes practised, the danger of the operation is greatly increased by such measures. These measures, however, amount to nothing more than an increase and exaggeration of the evil effects and dangers of the use of the ligature, by involving and producing a larger amount of ulceration, suppuration, and sloughing in the ligatured part of the vessel. The danger in the operation is, in other words, not so much the danger of the mere simple incision, as it is the danger of the deligation of the vessel, or rather of the mode and extent to which the vessel is disturbed and disordered by the mode of deligation adopted. At all events, in this instance it is the ligature of such a large supplying vessel as the femoral which is the source of peril and death in the operation.

The Special Source of Danger and Fatality in Surgical Operations.

In relation to these amputations and ligatures, and all other severe operations in Surgery, it is most undoubtedly true that the pathological state or disease which leads to a Surgical operation, is often much more the cause of the fatal result than the mere Surgical operation itself. The operation rather fails to save life than produces death. But still all large Surgical wounds and dismemberments of the body are sufficiently dire and disastrous in their consequences. We have already seen how greatly the presence and effects of the arterial sloughs produced by the ligature of vessels necessarily interfere with the local healing and primary union of wounds. But perhaps these ligatures and the strangulated pieces of tissue by which they are retained and affixed in the depths of the wounds, produce still more serious and grave results, by leading on in many cases to the excitement of formidable and too often of fatal constitutional fever, in consequence of the introduction into the general system of septic and ichorous matter placed by these ligatures in contact with the raw, absorbing surface of the wound.

Of patients dying after Surgical operations, some sink collapsed and exhausted before reaction supervenes, but the great mass of them do not perish under any purely Surgical complications, as gangrene, tetanus, hæmorrhage, etc. Out of 153 patients who died after Surgical operations or injuries at Guy's Hospital, and whose cases were ably analysed and published by Dr. Chevers, 18 or 19 only sank under purely Surgical complications such as the above; while in 134 of the 153, post-mortem examination found, as the more immediate cause of death, acute inflammatory and other morbid changes in different and distant internal organs or structures of the body, as the lungs, liver, pleura, peritoneum, joints, etc. These diffuse internal inflammations and lesions are the acknowledged results of that very frequent and fatal constitutional morbid state which Surgeons have latterly come to speak of under the various names of pyæmia, pyæmic fever, septicæmia, septic fever, traumatic fever, Surgical fever, etc. In one of the most deservedly-popular manuals of Surgery of the present day, Dr. Druitt defines this very common and very dangerous sequence of Surgical operations as "a diseased state of the blood, caused by the introduction of *decomposing animal matter*, often producing rapid effusions of fibrin or of puriform fluid into several internal organs." "The train of morbid phenomena constituting the disease are developed," says an eminent London pathologist, Dr. Kirkes, "by the introduction into the blood of the elements of pus, or other like disintegrating and *decomposing animal matter*." M. Berard briefly defines and names the malady by speaking of it as "Fievre par *resorption putride*." Dr. Tanner, again, tells us that this affection "is a morbid state of the blood, caused by the introduction into it of *ichorous or putrid matters*."

That in Surgical wounds treated by the process of deligation of arteries, there exists "decomposing animal matter," thus liable to be absorbed from the raw surface of the wound, and introduced into the blood and body of the patient, is a proposition not difficult to prove. Both (1) the ligatures themselves, and (2) the sloughing portions of the arteries which they strangulate and sphacelate, are foci from which such "decomposing animal matter" is most obviously derivable.

1st. *The Ligature Threads.*—In various experiments which I made some years ago upon the relative tolerance of the tissues of the living body for metallic and for organic suture threads, I found that threads of iron and silver, of silk and hemp, produced, as a general rule, nearly the same amount of irritation during the first two or three days of their insertion. After that time, however, had elapsed, there arose, as a general rule, around the tracks of the organic threads, more or less inflammation and suppuration, whilst the metallic threads did not excite such irritation by their continued presence. If either kind of thread, whether metallic or organic, happened to be so overdrawn as to compress the side of its track too tightly, that side always ulcerated, as I have already stated, as the result of the pressure. Making the experiments upon pigs, I further found, that when one of these organic or silk threads, which had been allowed to remain three, four, or more days in the lips of a wound, was taken out and inserted into the bottom of a new wound made upon the back of one of these animals, inflammation, sometimes of a furunculoid or carbuncular form, generally sprang up rapidly around the enclosed thread. Similar pieces of new silk thread inserted to similar depths in similar wounds on the opposite side of the body of the same animal, did not excite the same speedy and

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unhealthy morbid reaction in the lips and sides of the wound. I believed at the time—and believe still—that the old suture threads were thus proved to be capable of being frequent sources of irritation and poisoning to the surrounding tissues, because, after being inserted in living structures for three or four days, they do what metallic threads do not,—namely, they swell from the imbibition of animal fluids in contact with them; and these dead, imbibed fluids speedily decompose and irritate the surrounding living tissues onwards to suppuration. The decomposing animal matters and pus thus retained in the thread rendered it, in the experiments I have spoken of, a nidus of irritation and poisoning to the surrounding tissues when it was buried in the centre of a recent wound.

But in the preceding respects, a silken thread applied to the deligation of an artery does not differ from a silken thread applied to the stitching together of the sides of a wound. A silken suture-thread is as good as an iron or silver suture-thread in cases where it can be safely removed within sixty or eighty hours of its insertion; but whilst the metallic thread for almost an indefinite time remains innocuous,—as far as regards the tolerance of the living tissues for it,—the retained silken thread or ligature, containing within its meshes imbibed decomposing animal matter, is always liable and ready to be a source of greater or less irritation to the textures with which it is in contact. Silken ligature threads, when tied around arteries, do not usually ulcerate through the texture which they strangulate till from four or five to twenty or even more days after they are applied. During that long period they necessarily contain dead animal fluids, and speedily imbibe the pus which is inevitably poured out along their tracks,—for they inevitably produce suppuration,—and they are thus amply provided, within their own meshes, with the materials of mischief, if these materials are, as we believe them (in the language of Drs. Druitt and Kirkes) to be, "decomposing animal matter."

2nd. *The Arterial Sloughs.*—In wounds where arterial ligatures are used, another, and perhaps far more serious, source of such "decomposing animal matter"—of such "ichorous or putrid matters," to use the words of Dr. Tanner—as are capable of exciting pyæmic fever, is to be found in the small sphacelating masses or sloughs made by the ligatures in the ends and stumps of the tied arteries. The ichorous putrid matter oozing from all soft tissues in a state of moist mortification or sloughing, is usually believed to be of an irritating and acrid nature. "Mortification," observes Sir Robert Carswell, "of a portion of a limb succeeding to inflammation, to a mechanical injury, to an operation, is often followed by mortification of some internal organ. . . . The septic principle," he adds, "is carried into the blood, and appears to give rise to a state of gangrene or sphacelus."—("Cyclopædia of Practical Medicine," v. iii., p. 144.) "Putrid animal substances," observes Dr. Robert Fergusson, "are amongst the most noxious poisons to the blood."—("Essays on the Most Important Diseases of Women," part i., p. 75.) Dr. Fergusson makes this observation in regard to the cause and production of puerperal fever, a disease which I have elsewhere tried to show is analogous with Surgical fever. In reference to the same malady (puerperal fever), Dr. Rigby maintains that it essentially consists of "the introduction into the circulation of an animal poison generated by *putrefaction*."—("System of Midwifery," p. 267.) "We have long," he observes, "been convinced that one of the causes of puerperal fever is the absorption of putrid matters furnished by the coagula and discharges which are apt to be retained in the uterus and passages after parturition," (p. 260). In reference to the small sloughs and ulcers which are liable to occur in the intestinal canal in continued or typhoid fever, the late Dr. Todd makes a remark perhaps still more pertinent to our case. In that disease, "the sloughing and ulcerative process," as he observes, "furnishes a source of formation of a poisonous matter, which we know, by experience of analogous cases, when taken into the system, creates symptoms of the same character as those of the fatal instances of typhoid fever."—("Clinical Lectures on Acute Diseases," p. 115.) There is certainly no reason to believe that the dead, septic, sloughing material of an artery differs in this respect from any other dead, septic, sloughing structure. And in Surgical wounds these arterial sloughs, more or fewer in number, are placed in the conditions and situations best adapted for the absorption of their gangrenous discharges; because they are lodged in the depths and centre of the raw wound, and almost closely in contact with the gaping orifices of the veins that run alongside of the tied and gangrenous artery. One Surgeon, Mr. Henry Lee, has ingeniously suggested the possibility of preventing the absorption of morbid matter, and consequent blood-poisoning, in cases of inflamed external veins, by applying acupressure higher up in the tube of the affected superficial vein. He has published two or three instances where this practice seemed to be followed by the happiest results. But, in passing, may we not venture to ask whether a similar application of acupressure to the deep veins of a wounded or amputated limb would not sometimes, under similar circumstances, be followed by similar success? At all events, Mr. Lee's and other cases show sufficiently the danger of sphacelating and decomposing tissues being placed in contact or contiguity with the open orifices of veins.

Possibly, in some exceptional cases, the sanious ichor from the arterial slough may be more deleterious and poisonous than in others. At all events, we see sometimes that the dead bodies of those that die—particularly of puerperal and Surgical fever—have all their tissues and fluids of such a poisonous nature that they dangerously and fatally affect the body of the dissector when introduced into his system in the smallest quantity by the smallest wound. What happens in the way of septic decomposition to the dead body as a whole, may possibly happen now and again to dead portions of a body, however small, in the form of local sloughs. Besides, there is one form of slough—viz., hospital gangrene—where contact of the ichor or, to use the expression of Professor Gross, "of the secretions of a gangrenous sore with a sore of a healthy character," excites a dangerous gangrenous tendency in the latter.

Surfaces of Wounds capable of Absorbing Morbific Materials placed in Contact with them.

That mineral and organic poisons can be absorbed from the surfaces of wounds is testified to by ample experiment and observation. "In recent times," observes Dr. Christison, "Professor Orfila has proved that various poisons, such as arsenic, tartar emetic, and acetate of lead, disappear in part or wholly from wounds into which they had been introduced."—("Treatise on Poisons," fourth edition, p. 12.) "Any ulcer or wound," remarks Dr. Taylor, "is a ready medium for the absorption of poison."—("On Poisons," second edition, p. 23.) "The observation," writes Liebig, "of Magendie, that putrid blood, brain, bile, or pus, when laid on fresh wounds, produces in animals vomiting, languor, and death, after a longer or shorter interval, has not yet been contradicted."—("Letters on Chemistry," p. 229.) I have seen an animal poisoned by materials introduced into an old seton wound. Ulcers and wounds have absorbed poisonous doses of arsenic. We affect the body systematically by dusting strychnine and morphia upon the open surfaces or wounds left by blisters. Further, we have abundance of proofs of the absorption of *animal* poisonous material from wounds in the human body, in the inoculability of small-pox, cow-pox, syphilis, glanders, pustule maligne, etc., and in the fact, that bodies in dissecting-rooms sometimes pass into a certain state of decomposition which is communicable, by punctures and scratches, to the living subject.

Nature of the Poison in Surgical Fever.

Pathologists, up to the present time, are by no means agreed as to what actually constitutes the morbific matter which, when absorbed or imbibed into the blood from wounds, produces the disasters of pyæmic or Surgical fever. Some hold that the matter consists of entire pus-globules; others that it is the putrid, thin or serous portion of the pus; or septic matter not necessarily connected with suppuration; or, in its initial genesis, forms, as I believe more probable, of organic poisons arising from animal decomposition, more like alkaloids in their chemical type and poisonous effects than aught we can otherwise well compare them to. It is of no moment, in reference to our present inquiry, which of these doctrines be true; or whether there be not different species or varieties of septic or Surgical fever due to different species and varieties of the poisonous matter introduced. Allow me, however, to remark that the morbid materials existing on the raw surface of the wound would probably be absorbed or imbibed even more frequently than they are, and hence the devastations of pyæmic or Surgical fever would be greater than they are at present acknowledged to be, were it not, that in a certain proportion of cases the granulating walls of the wound with which the ligatures are in contact, and the ovoid mass of new fibrin or lymph, which surrounds the strangulated and sphacelated end of the artery, form, against the evil influences of absorption, guards which too often give way when the reparative process in the wound in any way fails. Besides, frequent though the disease is, its greater frequency is perhaps still more prevented by the happy absence from the blood of

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an adequate and fit pabulum of organic materials, upon which the poison from the wound—when once absorbed and introduced into the circulating system—could produce the necessary organic changes or ferment which the commonly received theory of puerperal and Surgical fever involves.

What Acupressure Avoids.

The interior of a wound treated by acupressure is in principle so different from the interior of a wound treated by the ligature of its arteries, that there is every reason to believe that, when more generally adopted, the occurrence of pyæmic or Surgical fever will become lessened at least and diminished. A long series of careful observations, however, can alone definitely determine this most important matter. But, hypothetically, we would expect such a favourable result to follow, if the present ideas of the best Surgical pathologists regarding the origin of this fever in the introduction of decomposing animal matters into the blood, be founded in truth. For (1) the inevitable presence, in cases of deligation, of as many dead mortified sloughs as there are vessels tied, and the total absence in acupressure of any such irritating decomposing bodies, form, as we have already seen, one of the principal distinctions between the use of the thread and of the needle as a hæmostatic. (2.) It is scarcely to be doubted that pieces, however small, of dead, devitalised tissue, deeply lodged and embedded in raw wounds for days or even for weeks, could have any other than a dangerous and contaminating influence, both upon the wound and upon the invalid—both upon the rapidity of the patient's recovery and upon the chances of his recovery at all. (3.) The processes of elimination, ulceration, and suppuration which, in deligation, each individual arterial slough, however minute, necessarily and inevitably excites in the living tissues around it—a process that is totally wanting in acupressure—constitutes another great difference against the use of the ligature, and in favour of the use of the needle. Besides (4), the body or limbs of the ligature, with its imbibed, decomposing, putrid, and purulent materials, may, in cases of deligation, form, as we have seen, a source of irritation of both a local and a constitutional character. Surgeons have generally, as I am inclined to think, totally overlooked these various deleterious effects of the ligature, not only in relation to their local morbific action upon the wound, but also in relation to their morbific action upon the system at large.

In the largest and last work on Surgery published in Great Britain ("Holmes' System of Surgery"), Mr. Callender, the author of the article on pyæmic or Surgical fever, states that, "although no satisfactory explanation can be offered of the fact, it must be assumed that wounds may themselves engender septic matter;" and he observes, a few sentences onwards, that, should suppurating wounds "become infected, their treatment must be as simple as possible. All sources of irritation (he adds), as foreign bodies or accumulations of pus, should be removed," etc. But, no doubt, the ligatures and the sloughs to which the ligatures are affixed frequently themselves engender septic matter; and there would be little use in removing foreign bodies or accumulations of pus if we were obliged to leave, as deligation necessitates, such foreign bodies and formers of septic and purulent matter. To prevent pyæmic or Surgical fever, Mr. Callender correctly advises us, in regard to Surgical wounds, that "care be taken to promote their *early* closure, for when this is attained exhausting suppuration is avoided, and the disposition to pyæmia is lessened. They should also be kept clean, and free from irritation." Now, all these preventive measures are so far aimed at, and in part attained, by acupressure; and all of them are so far boldlyset at defiance when the ligature is employed. Nor is it necessary to insist upon the high importance of such indications as these are in a prophylactic point of view; for here, as elsewhere in all practical science—and particularly in Medical science—prevention will ever be found safer, and surer, and simpler than cure.

Local Hygiene of Wounds.

In the modern history of Medicine no subject has made greater or more solid and successful advances than the study of the prevention of disease—hygiene or sanitary measures. All unprejudiced minds in our own and in other professions, who have attended to the subject, are convinced that the introduction into the body by inhalation or otherwise of decomposing animal matters form—and particularly under some special conditions of decomposition—a frequent source of debility, disease and death, and constitute especially the origin and promoter of various forms of fever. Even in instances where they do not actually produce diseases they aggravate greatly and dangerously maladies that are excited by other causes. The removal and avoidance of these morbific causes—resulting from organic decompositions—form the acknowledged media by which much human life has been already saved, and much human disease and misery already prevented. But in the Surgical patient there are, if I may so speak, *local* as well as general sanitary arrangements to be attended to; for besides the general hygiene of the body of the patient there is the local hygiene of the wounded or diseased part. Nay more, the sanitary laws that are of the utmost moment for the patient's body, are the same that apply to the patient's wound.

The most perfect hygienic state for insuring the health of the general body is simply the most perfect attainable state of general cleanliness as regards abundance of air, abundance of water, freedom from decomposing materials and effluvia, etc.; and the most perfect hygienic state for the local wound is there also the most perfect attainable state of local cleanliness in the best and fullest sense of that term.

In the case of a man who is the subject of a large and dangerous Surgical wound, to keep spontaneously locked up and deliberately imbedded within the depths of the wound a series of dirty, decomposing dead sloughs, is surely not more irrational than it would be,—with deliberate intent and forethought,—to submit the body of that man to the morbific influence of a set of uncleanly decomposing organic materials placed immediately around him. "A poison (wisely remarks Mr. Travers) admitted by a wound or raw surface, and a poison admitted by the lungs, are equally excitants of a specific constitutional irritation."—("Inquiry concerning Constitutional Irritation," page 527.) Nothing, in the whole round of professional practices and customs, seems to me to be a more curious anomaly and paradox than to watch Surgeons sew up with the greatest artistic accuracy and nicety the lips of an amputation or other wound with metallic sutures, while they have left buried in the interior of the wound a series of silken ligatures, each of which will inevitably produce ulceration and sloughing at the ligatured points. The finished wound is apparently all tidiness and neatness without; but within there are strangulated, sloughy portions of tissue, the sphacelation of which must inevitably be attended by ulceration and suppuration. It is like enforcing cleanliness, as it were, and the best hygienic measures outside a house, whilst within doors there were retained and locked up filth and decomposition and the explosive elements of destruction and disease. It is, in short, the old story of the "whited sepulchre," "beautiful outwardly," but within "full of all uncleanness."

Application of Acupressure to other Matters than the Closing of Arteries in Surgical Wounds.

Our limits are not sufficient to allow of the discussion of all the many and various points of interest connected with acupressure. Hence, I have neither time nor space to speak of, at length, its application to other conditions besides common wounds.

A needle, more or less of the form of the acupressure needle, Fig. 1, has now been extensively employed by Wutzer, Bonnet, Rothmund, Wells, and others, in the operation for the radical cure of hernia.

Perhaps acupressure will yet be found in some cases an easy and effectual means of compressing arterial trunks for hæmorrhage, and other practical purposes, as, for example, the artery leading to an aneurism, such as the femoral artery in popliteal aneurism, thus changing the operation for that disease into a simple process of acupuncture, instead of a process of delicate dissection and deligation when, in any instances of this disease, the milder methods of external compression, of manipulation, and of continuous flexion of the limb, fail.

It has been hitherto a difficult problem to obstruct the vessels of the ovarian ligament in ovariotomy without leaving a foreign body upon the stalk of the tumour, either to ulcerate or to slough through it. The stump of the ovarian pedicle—in cases where the pedicle is ligatured *en masse*—forms necessarily a dangerous element against the success of the operation; for it is allowed to pass backwards into the cavity of the peritoneum so strangulated as inevitably to produce ulceration or mortification in the ligatured part. Again, when the clamp is used, the straining and drag upon a shortened pedicle is sometimes so great as to endanger the life of the patient, on the same principle as a piece of stretched omentum in a strangulated hernia does so. Besides, the pedicle when clamped and dragged out externally prevents the lower part of the wound from healing until the clamp

is removed and the pedicle retracts. It sometimes is long in sloughing through the strangulated pedicle. In a case of ovariotomy which I performed last year, the clamp was twelve or thirteen days before it separated. The patient made a perfect recovery, but there was an umbilical-like wound in the abdominal walls from this effect of the clamp, which was long of healing. I left the clamp on in this case thus long in order to see the length of time it would take to ulcerate through the pedicle, particularly as there were no symptoms urging its removal. When removed early, that is, on the second or third day, the pedicle is apt to become retracted with a piece of dead and compressed tissue attached to it. In the *Medical Times* for March, 1860, page 285, I ventured to suggest a mode of applying acupressure to the ovarian stalk in cases where ovarian disease was removed by extirpation, but I am not aware that that method has yet been tried. In the following case of ovariotomy I lately applied acupressure successfully in another and a different way.

Case 21.—*Ovariotomy — Acupressure applied to the Stalk, and removed in Forty-six Hours.*—The patient was married, the mother of one child, and had been three times tapped. The multilocular ovarian tumour weighed upwards of 30 lbs. The largest cyst contained 23 lbs. of pure pus. The tumour was universally adherent, in front, to the abdominal walls. After detaching it, and having drawn it out externally, I applied a clamp to the ovarian stalk so near the tumour as to include a portion of it. After the tumour was removed, the uterus and attached parts showed a strong tendency to pull the clamp downwards to the pelvic brim. It was evident that it could not be left on without great and inevitable dragging upon the pedicle. I then passed a glass-headed needle, two and a-half inches long, twice through the ovarian stalk, immediately below the clamp. In passing it thus twice, I left out at either side a portion of tissue, to which no compression was to be applied, with the hope that it would supply with blood and vitality the strangulated stump of the ovarian stalk. The needle was thus placed under nearly the same conditions as in the method of acupressure which I have previously described and delineated as No. 3, and which, let me add, I believe Practitioners will find the simplest and most serviceable of all the forms described for common wounds. To compress the stalk sufficiently, I threw over the point-end of the needle a loop of strong tinned iron wire, of the size described by iron-workers as No. 22, twisted it half round the headed end of the acupressure needle, and then drew it with sufficient tightness to prevent any discharge of blood from the included vessels. A slender cylindrical iron hood, three-quarters of an inch in length, was placed over the sharp end of the needle to prevent injury and lesions from it; and this hood was fixed to the head-end of the acupressure needle by a duplicature of slender suture wire of the size No. 32. The clamp was then removed; the small remaining portion of the tumour which it embraced was excised; and the acupressure needle was carefully placed across the brim of the pelvis. A string attached to the beaded head of the needle and the wires used in compressing the stalk were left out at the lower edge of the abdominal wound. The wound itself was united by stitches of iron thread, passed so as to embrace the peritoneum, except in one instance, where the stitch was only superficial. The wire threads were carefully moulded to the exact shape of the parts in which they were each respectively placed, by pressing each in succession with two fingers, one applied inside and one out. The acupressure apparatus was removed in forty-six hours by merely pulling at the head of the acupressure pin. The two sets of wires, one of them carrying the hood, came out with it. Four days after the operation, all the deep iron stitches, without a drop of pus following any of them, were removed, and the wound was found healed from end to end by the first intention. The superficial iron stitch was left in a few days longer, and two or three drops of purulent matter followed its withdrawal. Thirteen days after the operation, the cicatrix at its uppermost end opened under a fit of coughing, and a quantity of pus which had been forming a small swelling there for a few days escaped. In this instance there existed before the operation the purulent diathesis in the most marked form; the patient's pulse was never for weeks under 100, and usually considerably higher, and there was a purulent collection of 23 lbs. of matter within her body. Since the small abscess in the abdominal walls has given way, the pulse has sunk towards the natural standard, and she is rapidly regaining health and strength.

Probably it will turn out, that allowing the tied ovarian pedicle to pass back into its normal situation under the compression of an acupressure needle, and removing that needle in a day or two after its application, will diminish the risks and mortality attendant upon ovariotomy. I am the more inclined to take this view, from seeing it stated, in the last edition of Dr. Churchill's very able work on the Diseases of Women, that my friend, Dr. Tyler Smith, of London, has only lost three out of eighteen cases of ovariotomy; and the principal peculiarity, I believe, in Dr. Smith's mode of operating consists in allowing the stalk of the tumour, tied with an organic ligature of silk or cord cut off short, to slip back at once into the cavity of the abdomen. In this method we encounter the dangers occurring from a foreign body, such as a ligature being left permanently within the cavity of the abdomen, and from the tied end of the stalk being ulcerated and sphacelated by that ligature. In acupressure we avoid both of these dangers.

Contrast between Ligature and Acupressure.

Lastly, allow me to present to you, in a brief tabular form, a summary, as it were, of the leading differences and distinctions between the ligature and acupressure, and their respective consequences and effects. The comparison might, if it were desirable, be made much longer. It refers, as I have said, to the leading differences only.

Comparison between the Ligature and Acupressure.

The Ligature.	*Acupressure.*
1. Requires isolation, and consequently some detachment, of the end of the vessel.	Requires none.
2. Produces laceration of the two internal coats of the artery.	Produces none.
3. Produces strangulation of the external coat.	Produces none.
4. Leads on to ulceration or molecular destruction of the external coat at the constricted part.	Produces none.
5. Causes mortification of the artery at the tied point, and usually also below it.	Produces none.
6. Produces consequently a dead, decomposing slough of each part ligatured.	Produces none.
7. If organic, it imbibes animal fluids, which speedily decompose and irritate.	Requires only metallic needles or threads, which are incapable of imbibing animal fluids.
8. Requires to produce the highest stages of inflammation at each ligatured end, viz., ulceration, suppuration, and mortification.	Requires to produce inflammation up to the stage of adhesion only.
9. Is not removable except by the slow ulceration and sloughing of the ligatured vessel, which requires a period of from four or five to twenty days and more.	Is removable in an hour, a day, etc., at the will of the operator.
10. Generally requires two persons for its application.	Requires only one person.
11. Is sometimes followed by secondary hæmorrhage, as an effect of ulceration and sloughing.	Is seldom followed by this form of secondary hæmorrhage, as there is no ulceration or sloughing.
12. Sometimes fails altogether in cases of recurring secondary hæmorrhage.	Has succeeded under such circumstances where the ligature has failed. (See Case 17.)
13. Sometimes cannot be applied till the Surgeon first exposes the bleeding vessel by the knife.	Does not necessarily require the exposure of the vessel, and, therefore, has sometimes prevented the necessity of using the knife. (See Cases 12—16.)
14. Prevents, as a foreign body, adhesion by first intention along its tract as long as it remains.	Is early withdrawn, and is hence far less opposed to primary union.
15. Stops only the artery tied.	Stops generally both artery and vein.
16. Stops only one artery.	May close two or more smaller arteries by means of a single needle. (See Cases 1 and 11.)

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The Ligature.	*Acupressure.*
17. Is not unfrequently followed by Surgical fever from leading to the formation and allowing absorption of septic matters.	Is much less likely to be followed by Surgical fever, because it does not lead to the formation of septic matter, and closes the veins as well as arteries.
18. For these various reasons, primary union rare, healing slow, and septic or Surgical fever not uncommon.	Primary union more frequent, healing quicker, and septic or Surgical fever less common.

I will delay you no further by offering to make any observations on this contrast. Such a table requires no comments. It speaks sufficiently for itself.

LECTURES ON
THE BRITISH PHARMACOPŒIA:
ITS CONSTRUCTION, ITS COMPARISON WITH THE LONDON PHARMACOPŒIA,
AND THE
VALUE OF ITS NEW REMEDIES IN THE TREATMENT OF DISEASE.

DELIVERED AT

The Royal College of Physicians,

By A. B. GARROD, M.D., F.R.S.,

Fellow of the Royal College of Physicians; Physician to King's College Hospital.

Lecture II.—Friday, January 29.

Mr. President,—At the conclusion of my Lecture on Wednesday, I had commenced discussing the value of some of the new introductions in the Materia Medica of the British Pharmacopœia; I propose to continue this investigation to-day; but, prior to so doing, it may, perhaps, be desirable that I should occupy a short time in speaking of the changes of nomenclature which will be found in the work. On turning over its pages, one cannot help being struck with some of the alterations, from the apparent strangeness of the names newly introduced; and no small surprise will be expressed, and, probably, censure thrown on the Committee, for making such deviations from a nomenclature to which all Practitioners have become accustomed. However, these changes, although scarcely approved of by all the members of the Committee, have not been made without due consideration and after much discussion. Several of the alterations I allude to have been effected only in the scientific, or Latin, name of the medicine; others, in the very essence of the name itself.

Let us first turn to one or two of the elementary bodies—Chlorine, for example. The Latin name has been changed from Chlorinium, of the London Pharmacopœia, to Chlorum; and hence a solution of the gas in water is now termed Liquor chlori, instead of Liquor chlorinii; and its combinations with lime and soda are named Calx chlorata and Soda chlorata, in lieu of Calx chlorinata and Soda chlorinata. In the same way, the old Latin name for Iodine, Iodinium, has been changed into Iodum; and amongst the tinctures, liniments, and ointments will be found Tinctura Iodi, Linimentum Iodi, and Unguentum Iodi compositum. It will naturally be asked, why was this change made; what advantages do the new names possess over the old? Let us examine the construction of the word Iodinium. It will be seen that it is simply the adopted English name Iodine with a Latin termination. The same applies to Chlorinium. It was the opinion of some of the Committee, that such a construction of Latin words was incorrect, and that their roots, rather, should be appealed to. If this principle be adopted, the Greek word ἰωδης would become Iodum, and χλωρος, in like manner, Chlorum. Had the element Bromine been introduced in its free state, it would have been termed Bromum, and not Brominium, as on a former occasion. This being granted, in the combination of chlorine with bases, the participle naturally becomes chloratus, in lieu of chlorinatus. The word Chloroformyl—the London Pharmacopœia Latin name for Chloroform—is now Chloroformum, and its preparation Spiritus Chloroformi. Several changes will also be observed in other preparations, which are either not very definite in constitution, or in which the arrangement of the elements is imperfectly understood. For example, the old preparation, Potassii Sulphuretum, is now Potassa Sulphurata, Ferri Potassio-tartras becomes Ferrum Tartaratum, and Antimonii Potassio-tartras, Antimonium Tartaratum—a restoration in the last two instances to the old names by which they were known, except that the word tartaratum is employed in lieu of tartarizatum. It may be objected, and with some reason, that we have not fully carried this principle out, as the citrate of iron is designated Ferri et Ammoniæ Citras, and not Ferrum Citratum.

There are certain metallic preparations, the names of which, in different pharmacopœias, and even in different editions of the same pharmacopœia, have undergone numerous changes, dependent on the altered opinions of chemists as to the true atomic weights of the elements of which they are composed; and such changes have not only proved of serious inconvenience to the Practitioner, but have even occasionally been attended with danger—I allude more especially to the mercurial salts. To obviate such inconvenience, the Committee have deemed it advisable in these instances to attach names to the drugs having often little or no relation to their composition, but rather to their characters, or the familiar names by which they have long been known both to the Profession and public; for example, the Chlorides of Mercury are now termed Calomelas and Hydrargyrum corrosivum sublimatum, or, in English, Calomel and Corrosive Sublimate. Hydrargyri ammonio chloridum is changed to Hydrargyrum ammoniatum, and the two Iodides are respectively called Hydrargyri iodidum rubrum, and Hydrargyri iodidum viride, or the Red and Green Iodides of Mercury. Lastly, Hydrargyri nitrico oxidum is designated Hydrargyri oxidum rubrum, or Red Oxide of Mercury. Such are the names by which these salts are to be prescribed; but, on referring to the definitions, it will be found that their true composition is expressed, and thus Calomel is defined to be a subchloride of mercury, consisting of two equivalents of the metal united with one of chlorine, and so on for the other preparations now alluded to.

An alteration has also been made in the name of the Bismuth salt, which has undergone so many vicissitudes, sometimes being designated a nitrate, then an oxide, then a subnitrate, at other times, a trisnitrate, until, at last, in the edition of the London Pharmacopœia of 1851, it again returned to its condition of nitrate. In the British Pharmacopœia it is called Bismuthum album, and defined to be a nitrate of bismuth, consisting of one equivalent of teroxide of the metal united with an equivalent of nitric acid. Changes have also been made in the names of two of the alkaloids; Quinia, for example, is now substituted for Quina, and Aconitia for Aconitina.

I have, I believe, mentioned the principal changes of nomenclature in the new work; others of less importance exist, but will be readily understood after what I have now stated. I will conclude this part of my subject with one remark. Substantives ending in *as* are made feminine in the British Pharmacopœia; hitherto they have been—*masculine* in the United States Pharmacopœia, *feminine* in the London, and *neuter* in the Pharmacopœias of Edinburgh and Dublin.

We shall next treat, somewhat in alphabetical order, of certain medicines derived from Aconitum napellus; and it will be observed that some alterations have been made in the preparations of this plant deserving a passing notice. Its alkaloid, *Aconitia*, for example, has been introduced; and probably most of you remember that this active principle was made officinal by the London College in 1836, but removed from the list of their Materia Medica in 1851. With the causes leading to this step I am unacquainted; but in the interval which elapsed between the publication of the two editions, Aconitine had gradually become a remedy of not unfrequent use as an external agent.

In lieu of the term Aconitina, its Latin name has been changed to Aconitia, and it is defined to be an alkaloid obtained from aconite root. As it is a substance of high price, although much less so than formerly, it is very liable to adulteration; hence the necessity of characters and tests being inserted, so that the Practitioner and Druggist may be able to ascertain its purity. Much disappointment has been experienced from the use of spurious Aconitine, and much of that which is imported from the Continent is comparatively or altogether inert. When pure it is an intense poison; and if its ointment, such as that introduced in the British Pharmacopœia, be rubbed upon a part where the skin is sensitive, considerable tingling is experienced, and this symptom is soon followed by numbness, lasting hours or days, according to the amount employed. When given internally it is a most dangerous agent—in fact, so intense is its action, that it should

not be used at all in this manner. Some eighteen years since I had occasion to make several trials of the action of Aconitine upon animals, and I invariably found that $\frac{1}{60}$th of a grain was sufficient to destroy a large dog; its action, although so energetic, is by no means rapid—usually more than half an hour elapsed from the administration of the poison to the death of the animal; its influence appeared to be directed more especially to the nervous system, and through it the heart became implicated; the animal seemed to lose all sensation, and its staggering gait or inability to walk apparently depended upon want of sensation rather than of motor power; it was likewise quite unconscious of any external injury; the heart's action became gradually slower, from about 110 pulsations in the minute to 25, or even less, and the animal died from asthenia. In the human subject, when poisoning has occurred from Aconite, symptoms very similar to those I have just mentioned have been noticed. Aconitine is certainly a most valuable external remedy; and for the purpose of alleviating neuralgic pains, I know of nothing equal to it. In the form of the Unguentum Aconitiæ, in which 8 grains of the alkaloid are dissolved in a little spirit, and then thoroughly mixed with an ounce of prepared lard, it is a clean and elegant preparation.

The changes made in the preparations of Aconite are important to be remembered. The Tincture of Aconite of the British Pharmacopœia is very much reduced in strength, compared with the London tincture: each fluid ounce of the new tincture contains the powers of about 54½ grains of the dried root; whereas the London tincture contains as much as 180 grains per fluid ounce; it is, therefore, more than three times the strength. The London tincture is, perhaps, too strong for convenient exhibition as an internal remedy, and certainly too weak as an external agent; the British Pharmacopœia tincture will, I think, be well adapted for the former purpose, and for the latter there is introduced a very strong spirit solution of the root, stronger than what is called Fleming's Tincture—not designated, however, by the name of Tincture, but called Linimentum Aconiti, or Aconite Liniment—in which each fluid ounce of the preparation is intended to represent the powers of an ounce of the dried root; it is, therefore, more than eight times the strength of the new tincture: a little camphor has been added to give it some of the characters of a liniment.

Under the head of *Aconitum*, the leaf and flowering tops of Aconitum Napellus have been introduced, as in the London Pharmacopœia, and from the fresh juice an extract is ordered to be prepared. It would appear that this preparation is very uncertain as to its strength, and it is somewhat difficult to understand why an extract of the leaf should be required, seeing that the activity of the root is so great. An alcoholic extract of this part is occasionally used, and is very much more potent than that obtained from the leaf.

You are all aware that three kinds of aloes are made officinal in the London Pharmacopœia, namely, the Socotrine, Barbadoes, and Hepatic aloes. In the British Pharmacopœia, this last variety, the Hepatic, has been discarded. There could not be found any good reason for retaining the Hepatic. It did not possess any qualities superior to either the Socotrine or Barbadoes; and, in fact, although it somewhat resembled Socotrine aloes, yet it was decidedly inferior to it. Whether there is any essential difference between Socotrine and Barbadoes aloes, I am not prepared, from any clinical experience, to decide. Both contain the same crystalline principle (aloïne), but the amount of matter insoluble in water is much greater in the Barbadoes variety. Before leaving the consideration of aloes, there is one point to which I wish to call your attention, as having some practical value. There is a very widely-spread opinion that the water extracts of aloes differ much in their action from aloes themselves; in short, that the insoluble, or so-called resinous matter is much more irritating than the part soluble in water. Wishing to ascertain the correctness of this very popular opinion, I made the following trials at the time the subject was under the consideration of our Committee. Socotrine aloes were treated with water, by the process given in the Pharmacopœia for making the extracts, and thus the insoluble and soluble portions were isolated. Pills were then formed with each, of the same weight, and administered. Sometimes the two kind of pills were given alternately, sometimes consecutively; in fact, every precaution was taken to ensure a correct result, for the number of cases in which they were administered was considerable, and a note was taken by the clinical clerks of the frequency and character of the action of each dose. From these observations, I was led to conclude that the watery extract of Socotrine aloes is much more powerful as a purgative than the resinous insoluble matters, but that the griping caused by it was also much in excess of that produced by the resin; in short, the latter body is, comparatively speaking, a feeble agent either for good or harm.

I am happy to be able to add Dr. F. Farre's testimony to the accuracy of the statement; for at the same time, and with the same ingredients, he made a similar series of observations, and with the same results. As yet I have not made a similar series of trials with Barbadoes aloes.

In the British Pharmacopœia you will find among the preparations a Barbadoes and a Socotrine aloes pill alike in composition, the variety of aloes and volatile oil excepted. This will enable us to test more easily the relative value of the two kinds of aloes. In the compound colocynth pill of the new Pharmacopœia, Barbadoes aloes enters; but in the compound extract, the Socotrine, and so on for many other preparations containing this drug.

Amongst the ammonia salts some important changes and additions have been made in the British Pharmacopœia. The old sesquicarbonate of ammonia is now termed the carbonate, although still defined to be a sesquicarbonate, and with a symbol denoting such a composition; its solution has been discarded. From the compound spirits of ammonia the cloves and cinnamon have been omitted, and hence it is not liable to change colour, as was the case with the London preparation, from the presence of the oil of cloves. It is also stronger in alcohol, and by connoisseurs is looked upon, I believe, as a very improved article. The fetid spirits of ammonia, and the compound tincture, have been omitted; the former as beyond human endurance, and the latter as little employed and unnecessary. A great change has been effected in the strength of Liquor ammoniæ acetatis. In the London Pharmacopœia it is ordered to be made by neutralising dilute acetic acid with carbonate of ammonia; when so prepared it is very liable to undergo change, becoming mouldy, and the dose required to produce any appreciable effect on the system is somewhat large. In the British Pharmacopœia, acetic acid of 28 per cent. is neutralised by the addition of strong ammonia, and a preparation is thus formed which is about five times the strength of the London solution. This fact it is important to bear in mind. Perhaps you may have wondered why acetate of ammonia itself is not introduced into the list of the Materia Medica, and the solution formed by dissolving the salt in water in definite proportions. The reason is simple. Acetate of ammonia can only be crystallised with the greatest difficulty, from its deliquescent property, and cannot be procured as a pharmaceutical article, and hence it was necessary that it should be represented in the Materia Medica by its watery solution. This is the case, likewise, with certain other salts; for example, the subacetate of lead.

The preparation termed *Liquor ammoniæ citratis* has not found a place in the British Pharmacopœia.

The new salts of ammonia are the benzoate and phosphate.

Benzoate of ammonia, represented by the formula on the board, $NH_4O,C_{14}H_5O_3+HO$, is formed simply by neutralising benzoic acid with solution of ammonia, and occurs, as you will observe, in beautiful white laminar crystals, which are readily soluble in water, in this respect differing from benzoic acid; soluble also in spirits.

What is the value of benzoate of ammonia as a remedy? It has the advantage over benzoic acid, in its greater solubility, which renders it available for administration in the liquid form, in many cases very desirable. It is rapidly absorbed, and its benzoic acid is converted into hippuric acid by the assumption of the elements of glycocoll, probably of glycocoll itself, which, doubtless, exists in the blood. The urine becomes altered in character, from the presence of the hippuric acid, which appears to be eliminated entirely by the kidneys; hence it becomes more acid, and even slightly irritating. This change in the quality of the urine renders benzoate of ammonia of much value in medicine—sometimes as a diuretic, in cases where the kidneys require stimulating, but more frequently on account of the influence produced upon the mucous membrane of the urinary passages. It is often of considerable service when there exists a tendency to phosphatic deposits; and in many cases of chronic inflammation of the bladder I have found much benefit from its employment. It has no influence upon the formation or secretion of the uric acid, the elimination of this acid remaining unaffected by its administration.

The formula representing the changes which benzoic acid undergoes when in the blood may be thus represented:—

Benzoic Acid	+	Glycocoll	=	Hippuric Acid	+	Water.
$C_{14}H_6O_4$		$C_4H_5NO_4$		$C_{18}H_9NO_6$	+	$2HO$.

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Benzoic acid, therefore, differs from almost all the other vegetable acids used in Medicine, in not undergoing decomposition, or being broken up into simpler compounds; instead of that, it assumes the elements of another principle—glycocoll—and is built up into a more complex organic body.

It may be asked why the urine is rendered more acid by the exhibition of benzoate of ammonia, seeing that the benzoic acid is combined with an alkaline base—the oxide of ammonium. The reason is as follows:—Ammonia is a base which differs altogether from the fixed alkalies—potash and soda—in not passing through the renal organs, but in being separated from the acid with which it may be combined, and becoming, perhaps, partially oxidised and converted into nitric acid, but chiefly, I suspect, eliminated by the skin and mucous membranes; hence a salt of ammonia with a vegetable acid, such as the acetate, citrate, or tartrate, exerts no influence in alkalinising the urine, and in this respect is opposed in action to the corresponding salts of the fixed bases, which are found in that fluid in the condition of carbonates. Should the ammonia be thrown out of the system by the skin and mucous membranes, it would at once explain the action of the salts of this base, as diaphoretics, expectorants, and so on.

Benzoate of ammonia is a salt which causes no injurious effects even when administered in considerable quantities. The usual dose for producing diuresis, or for influencing the urinary mucous membrane, is from 10 to 20 grains.

The second salt of ammonia, of novel introduction, is the Phosphate, consisting of three equivalents of oxide of ammonia to each equivalent of tribasic phosphoric acid, and in the crystalline salt with five equivalents of water, and is represented by the formula—$3NH_4O,PO_5 + 5HO$. It occurs in large, transparent, colourless prisms, having a slightly ammoniacal odour, on account of the feeble affinity by which part of the base is held. The salt is freely soluble in water, and the solution, if well diluted, not unpalatable to the taste.

You are probably aware that the salts of phosphoric acid possess many peculiarities, which render them of great importance in the animal economy, and that phosphoric acid in its tribasic condition differs considerably from other acids, either mineral or vegetable. With one atom of fixed base, as soda, its salt is strongly acid in reaction, and probably gives to the urine the acid reaction which it exhibits in health; on the other hand, with two atoms of soda, it forms an alkaline salt, and to its presence the alkalinity of the blood is probably due. Another peculiarity of the alkaline phosphates is, the capability of their solutions being rendered acid by the addition of uric acid without the precipitation of this latter body, a property of considerable value in preventing the deposition of this salt in the tissues of the animal economy. A weak solution of phosphate of ammonia has the property of dissolving and holding in solution a considerable amount of urate of soda. Apart, however, from these considerations, there appears to be a considerable amount of clinical experience in favour of the employment of this phosphate, and not only in certain urinary diseases, but likewise in the treatment of chronic conditions of the gouty habit.

Although freely acknowledging the difficulty of arriving in such cases at the true value of a remedy, I may state, from an extensive experience, I have reason to believe that much good may be derived from its long continued employment; it has also the great advantage of being a salt not foreign to the system, and from the use of which no injurious effects are likely to result.

(To be continued.)

THE ACCIDENT AT THE AGRICULTURAL HALL, ISLINGTON.—The account in the daily papers of the injuries received by the unfortunate keeper who was attacked by the lions at the Agricultural Hall, was in some respects incorrect. It was stated, "that the flesh was torn off the arm in most parts to the bare bone, very nearly from the shoulder to the wrist." The truth, however, is, that the man's hand, and hand only, was crushed by the lions. The middle finger and corresponding metacarpal bone were separated down to the base from the rest of the hand, and the soft parts round the wrist were deeply and irregularly torn, except at one small spot. The forearm and a part of the upper arm were slightly grazed, probably from being drawn through the bars of the cage. There was nothing amounting to laceration of the arm. The hand was amputated by Mr. Lawrence at the wrist-joint, and the patient is, we hear, doing well.

ORIGINAL COMMUNICATIONS.

ON SOME POINTS IN THE MEDICINAL TREATMENT OF CHRONIC PULMONARY CONSUMPTION.

By JOHN K. SPENDER,
Surgeon to the Eastern Dispensary, Bath.

THE multiplicity of remedies recommended for the treatment of pulmonary consumption is apt to embarrass the Practitioner whose experience of the disease is small, and who has not gathered very accurate and definite views of its pathology. Careful clinical records, drawn with precision, but not too long, are a better help to the study of constitutional and local phthisis than most "systematic" treatises; the bedside itself being, of course, the best place of all.

In a recent work on "Diseases of the Chest"—a work of considerable merit and importance—we may find illustrations of a common defect in what are called systematic books. "Undue acidity of the stomach" is mentioned as a frequent concomitant of pulmonary consumption; but we are advised to give the patient "mineral acids, with vegetable bitters and taraxacum," and if these do not answer, "liquor potassæ, carbonates of the alkalies, or nitrate of bismuth." It is not easy to understand how "undue acidity" can be removed by administering more acids, and it would seem more intelligible at least to try the alkalies first. A number of substances are specified as possessing useful "alterative" properties, and the cough is to be allayed by one or more of a long catalogue of drugs. The most serviceable medicine for relieving night-sweats is not named at all. The treatment of acute phthisis is dismissed in remarkably few words. There is, in short, an entire absence of any emphatic recapitulation of what we have to do, why it is to be done, and how we can most satisfactorily do it.

It has passed almost into an aphorism, that the fact of a large number of substances being alleged to cure a disease is a demonstration of its incurability. But the surest method of lessening our therapeutic ignorance is, first, to ascertain the exact limits of our knowledge, and then to make the most of all the certain knowledge we possess. And the history of the treatment of consumption shows that the number of authentic remedies for it has diminished in a tolerably close ratio with the increase in our trustworthy information concerning its pathology.

(*a*) Dr. Hughes Bennett lays down as a fundamental fact, that "phthisis pulmonalis is a disease of the primary digestion;" this disease producing scrofulosis, or that constitutional state which precedes the development of tubercle. The "excess of acidity in the alimentary canal" is the peculiarity of phthisis, so that the "alkaline secretions of the saliva and of the pancreatic juice are more than neutralised, and rendered incapable of either transforming the carbonaceous constituents of vegetable food into oil, or of so preparing fatty matters introduced into the system as will render them easily assimilable." Upon this pathological axiom we build the first therapeutic necessity, that alkalies are, as a rule, beneficial in phthisis.

(*b*) The blood of a consumptive person is almost always deficient in red corpuscles; for red corpuscles can be fashioned only from healthy chyle corpuscles, and healthy chyle corpuscles cannot come from "diseased primary digestion." Hence, we deduce the second therapeutic necessity, and we administer iron in addition to abundant meat food, for the power of iron in helping the formation of red blood corpuscles is a therapeutic proverb. With reference to the general question of the administration of iron in phthisis, the great authority of Trousseau must, in my opinion, be set aside.

(*c*) The emaciation which accompanies—and is one of the special peculiarities of—pulmonary consumption suggests the third therapeutic necessity,—that of prescribing the hydro- and the hydra-carbonaceous foods and medicines. Owing to some unique chemic and dynamic qualities, cod-liver oil fulfils this necessity in an unrivalled way.

Other remedies may be required in pulmonary consumption, but they are demanded as mere auxiliaries, and should be supplied as such. They are simply to be grouped around those that satisfy the three main therapeutic postulates just enumerated,—that is to say, (*a*) we ought to give an alkali; (*b*) we ought to give iron; and (*c*) we ought to give cod-liver oil. Let us now examine the manner in which these postulates can be carried out.

(*a*) Potash water, bicarbonate of potash, lime-water, and the aromatic spirits of ammonia, are the alkalies which would be naturally employed. Dr. T. K. Chambers is the unwearying advocate of the benefits of lime-water; it may be taken as a common beverage, or in union with fresh cold milk. Tradition pronounces the aromatic spirits of ammonia to have "diffusible stimulant" virtues, whatever those may be; it is a most useful medicine when diarrhœa is absent, but otherwise the bicarbonate of potash and lime-water are to be preferred. I do not pretend to affirm that acids are never called for, and never serviceable; for sometimes they do good simply as a short change from an over-alkaline treatment.

(*b*) What salt of iron can be combined in solution with an alkali? This is the practical question to solve. The tincture of sesquichloride of iron is clearly out of the question; while the ammonio-citrate and the sulphate of iron are decomposed and precipitated when an alkali is added to them. An inquiry into the resources of the Pharmacopœia discloses a potassio-tartrate of iron, resembling in physical properties the ammonio-citrate, but endowed with the chemical property of allowing an alkali to be added to it without decomposition. A draught such as the following is a pleasant piece of pharmacy, and may be taken by a patient twice or three times a day:—

℞. Ferri potassio-tart., gr. v.; spts. ammoniæ arom., ♏ xv.; spts. ætheris chlor. ♏x.; aquæ puræ, ad ℥j. M. ft. haustus.

This is the elementary iron and alkaline draught which, when opportunely given, has produced results that have seldom disappointed me. To this draught iodide of potassium and chlorate of potash may be joined, if either of these salts seem to be required by any intercurrent malady. The administration of iron is usually contra-indicated by diarrhœa; but if this exist as a mere passive flux, the saccharated carbonate of iron may be united with the compound chalk and opium powder, and continued for a long time. Here the remedies themselves are unaltered, but their form is accommodated to a casual incident of phthisis, which imperatively requires to be relieved before the "primary digestion" can do its proper functions.

(*c*) It is desirable to prevent an undue multiplication of the "times and seasons" for taking physic; and so the appropriate doses of cod-liver oil may, if the patient choose, be added to the iron and alkaline draught, with which it is easily miscible.

Subordinate to these three great principles of medicinal treatment, which can almost always be simultaneously carried out, particular remedies may be requisite to meet particular exigencies.

Dr. Hughes Bennett justly condemns that over-drugging plan which treats symptoms rather than causes; and which, among other things, suffocates a cough by narcotic medicines. But before the constitutional remedies have had time to amend that irritative state of bronchial passages and tubes on which cough mostly depends, morphia may be very useful—taken in a daily dose at bed-time. With this may be combined some port-wine, and a few grains of oxide of zinc, the agency of which salt in alleviating night perspirations Dr. Theophilus Thompson has not in the least overrated.

During the last twelve months, I have watched almost from day to day nearly thirty cases of pulmonary consumption, in which the medicinal treatment now sketched has been faithfully carried out, and with very notable success. Concerning the permanence of this success, time will bear its testimony. The orthodox diet and hygiene have, of course, had ample share in realising this good result. Experience teaches patience, however; and it is the merest empiricism to be in any hurry about the management of what is often the type of a chronic disease. The "pre-tubercular" stage of phthisis is not a formula only, but an important vital fact; and whenever, as Professional men, we get hold of this "pre-tubercular" stage, we should try and lay our therapeutic and hygienic foundations firm and deep, in the hope of literally obeying that true, though hackneyed, precept, that "prevention is better than cure." But, when opportunity does not allow us to "prevent," let us not always despair of curing; and, at the worst, let no adherence to a stupid and ignorant routine forbid us to grant, when possible, that euthanasia which is to no one a more blessed boon than to the consumptive sufferer.(a)

Gay-street, Bath.

(a) In a paper, read many years ago before the Medico-Chirurgical Society, by Mr. Spencer Wells, chloroform inhalations are recommended in the palliative treatment of phthisis. I have seen once or twice some of the dying horrors of "laryngeal phthisis" immensely relieved by this simple means.

CASE OF

UNILATERAL PALATINE PARALYSIS AND ANÆSTHESIA AFTER DIPHTHERIA.

By S. J. GEE, M.B. Lond.

A LADY, on June 4, 1863, complained of sore throat and of feeling chilly.

On June 8 (4th day), the skin was hot and dry, the pulse frequent and soft. Under the left angle of the jaw an enlarged lymphatic gland was perceptible; the whole fauces were too red; the uvula enlarged and semi-transparent; the left tonsil was covered with a thick, white, false membrane; the right tonsil did not present any unusual appearance, except slight swelling and redness. The false membrane seemed to be exactly limited to the left tonsil; around it, the strong hydrochloric acid diluted with an equal bulk of syrup was applied. Alimentation was insisted upon.

11th.—In fifty or sixty hours after the cauterisation, all the false membrane had cleared off, and none appeared afterwards on the same spot or elsewhere, and the subsequent course of the disease was that of a simple sore throat.

28th.—Throat normal in every respect. Patient rather weak, but walks out daily.

July 1 (27th day from onset of disease).—Voice began to be somewhat nasal.

3rd (29th day).—Voice excessively nasal, and fluids began to return through the nose.

7th (33rd day).—Seen, for first time since the occurrence of the above symptoms. On examining throat, I was at first struck by the perfectly normal appearance of all the parts. A closer examination showed that the left half of the soft palate was almost straight, and hung against the pharyngeal walls; whilst the right half was normally concave and prominent. The left half could be scratched or tickled without the patient feeling it, or producing any attempts to vomit. The right half was perfectly sensitive, and irritation produced reflex movements. No trustworthy comparison could be made between the two sides of the uvula. There was no other "diphtheric neurosis." The amount of nasal quality in the voice was always less in the morning, and after a prolonged rest, than when the voice had been exercised. There was a feeling as if the food stuck in the fauces, and it was swallowed with difficulty.

28th (54th day).—The paralysis and anæsthesia of the left half of the soft palate was still complete.

August 3 (about the 33rd day of the nervous symptoms).—The nasal quality of the voice and the other symptoms abated rather suddenly, and in a day or two had completely disappeared. Subsequent health perfect. The urine was not examined.

Maingault, in his Memoir (p. 65), gives a case of ptosis of the left eye after diphtheria, the right being presumably intact. This is the nearest approach to the above case that I have been able to find. On the correctness of the diagnosis, compare the history with which Trousseau opens his chapter on Pharyngeal Diphtheria.—(Clin. Med., i., 313.)

MEMORIAL TO THE LATE SURGEON SMYLY.—We are happy to learn that a movement is in progress to connect the name of this distinguished Surgeon in a permanent and practical manner with the Meath Hospital and County Dublin Infirmary, where he so long laboured, and where his Professional skill was so signally blessed to the relief of the suffering poor. It is in contemplation to erect and endow a ward for children in the Hospital, to be called "the Smyly Ward." The advantages, moral and hygienic, of separating the junior from the adult inmates, and the benefit to Medical teaching, and, by consequence, to the public, in a better treatment of diseases in children, are too apparent. The erection of such a ward was an object near to Mr. Smyly's heart, connected as he was so deeply with institutions for the education and support of the children of the destitute. There can be little doubt that this proposal will be cordially supported by an extensive circle of Mr. Smyly's friends and former patients. A sum of £200 would be sufficient to build the ward, and about £2000 would endow it for ever, the cost of maintenance of six beds amounting to £100 per annum.—*Saunders' News Letter*, January 29.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

CASE OF EXTRAVASATION OF URINE—PERINEAL SECTION—DEATH—CLINICAL REMARKS.

(Under the care of Mr. HULKE.)

A DISSIPATED, bronchitic old man, long troubled with stillicidium urinæ, found his scrotum swell. A Surgeon, suspecting extravasation, passed a No. 4 catheter, and drew off Oj. of urine. This was repeated next day, and, as the swelling had not extended from the scrotum to the perineum, it was thought that it might be merely dropsical. On the third day the scrotum was more swollen; the penis also was swollen and discoloured. This confirmed the first suspicion. A catheter was tied in the bladder, and incisions were made in the swelling. He pulled out the catheter the same evening, and, as it could not be replaced, he was sent to the Hospital.

On his admission, 9 o'clock p.m., February 22, the penis was very swollen, and dusky red. It crackled under pressure, from gaseous distension of the cellular tissue; and there was a black slough, the size of a florin, on its left side. The scrotum was greatly swollen, livid, and excoriated, and had a black slough, at its most dependent point, on the left side. From the scrotum, the œdema and redness extended upwards, above the left groin, as high as the level of the crest of the ilium. A catheter met with an obstruction at the middle of the scrotal part of the urethra, from which point it took a superficial course under the skin towards the perineum. The suprapubic region was resonant, so the bladder was not distended. He was exceedingly feeble. A glass of hot brandy-and-water having somewhat restored his circulation, and warmth slightly, he was placed under chloroform, and a small catheter-staff was passed through the first and through a second stricture in the situation of the bulb, its entrance into the bladder being evidenced by the escape of urine. The staff was cut upon through the perineum, and for nearly an inch and a-half was found lying in a greatly dilated part of the urethra, beyond which, at the spot where the bulb joins the membranous portion, the posterior stricture was found surrounded by a hard, fibrous mass. This was divided, and the handle of the staff having been replaced by the long steel rod, a large elastic catheter was slipped over this along the staff into the bladder, and the staff withdrawn. The catheter was secured. Incisions were made in the infiltrated parts, and poultices were applied when the bleeding had stopped.

Brandy, ʒss., was ordered every hour, and as much strong beef-tea as he could be induced to take.

Next day, less swelling; the urine flowed freely through the catheter; pulse 98. At night he grew restless, and pulled out the catheter. The House-Surgeon replaced it shortly after without trouble. On the second day he was weaker; the wounds were glazed; suppuration, which had begun, ceased, and sloughs had formed in the left groin. On the third morning he died.

The bladder was small, its walls thickened, its mucous membrane congested and ecchymosed. The urethra was contracted just in front of the bulb, and at the middle of the scrotum; the intermediate part was greatly dilated, and here the extravasation had taken place through a rent. The scrotum, penis, and tissues, as high as the ribs on the left side, were gangrenous.

In reference to this case Mr. Hulke remarked, that had the first suspicion been acted on, and free incisions made in the swollen scrotum, a limit would probably have been put to the extravasation, and the sloughing would have been circumscribed or prevented. Early and free incisions cannot be too strongly enforced. Where it is necessary to cut into the urethra and divide a stricture through the perineum, in order to place a gum-elastic catheter in the bladder, Mr. Hulke finds the catheter-staff more serviceable. By allowing the gum-elastic catheter to be slipped over it into the bladder, it obviates what is sometimes the most difficult step in the proceeding—the introduction of the catheter after the staff has been withdrawn.

A CASE OF VERY OBSTINATE STRICTURE OF THE URETHRA TREATED BY HOLT'S DILATOR—CLINICAL REMARKS.

(Under the care of Mr. HULKE.)

A tailor, aged 52, was sent to Mr. Hulke, October 18, with an obstinate stricture, after several unsuccessful attempts had been made during eight weeks to pass a catheter. He had catarrh of the bladder, voided his urine very frequently, with much straining, and by drops rather than in an unbroken stream. His appetite was bad, his sleep broken, and his appearance worn and jaded. Nineteen years before his stricture had been dilated by Mr. de Morgan; afterwards contracting it had been again dilated by Mr. Fergusson; then, in 1852, dilated by Mr. H. Lee; and, lastly, in 1857, Mr. J. Wood had divided it with his urethrotome. On each occasion, after full dilatation, contraction had quickly returned when the use of dilating instruments had been discontinued. After some trouble, Mr. Hulke introduced a No. 1 silver catheter through the stricture, a few days after this a No. 2, and in about a fortnight a No. 3 catheter, beyond which he could not get.

December 16.—The stricture was split with Holt's dilator, and a No. 10 catheter was immediately passed. He took a glass of hot grog and went to bed, but had a rigor in the evening and another next morning. A large catheter was passed every second day during the first fortnight, and after this twice a-week. He now passes the catheter himself, and is ordered never to omit its periodical use; the vesical catarrh has ceased. His appetite has returned; his appearance is improved, and he says that he is now in better health than he has known for years.

Mr. Hulke used the largest dilating tube at once, pushing it home rapidly. He does not retain a catheter in the bladder, but passes one every second or third day at first, and afterwards at increasing intervals. He has never seen extravasation follow Holt's rapid and forcible dilatation. He does not think the stricture is less prone to recur after this than after other methods of treatment, and advises that all intelligent patients should be taught to introduce the catheter themselves. This is especially desirable in Hospital practice, because the loss of half a day's work, which attendance at the Hospital often involves, too often leads working men to neglect themselves.

ST. BARTHOLOMEW'S HOSPITAL.

CASE OF OVARIOTOMY—DEATH—AUTOPSY.

(Under the care of Mr. PAGET.)

MR. PAGET operated on a young woman, aged 23, who had been admitted a few weeks previously with ovarian disease into Coborn ward. She had been married two years, and the tumour had been noticed for about the same time. It had not been tapped.

Beyond the presence of some rather firm adhesions between the anterior surface of the tumour and the abdominal walls, there was nothing to cause any special difficulty in the operation, which was performed in the usual manner—by tapping the cyst, which formed the greater portion of the mass, and then drawing it out gradually, together with the more solid multilocular tissue, which formed the lower part of the tumour. A clamp was applied to the pedicle, and the abdominal wound closed by pins, &c.

After the operation, all seemed to go on well for some hours, but unfavourable symptoms appeared on the following day, and she died fifty-three hours after its performance.

At a post-mortem examination, purulent lymph was found effused in the abdominal cavity, and the other signs of acute peritonitis were well marked, especially in the pelvic region. No other morbid condition of the intestines or other abdominal or pelvic organs could be found.

THERAPEUTICAL NOTES.

THE following brief remarks were made by Dr. Wilks, at a recent visit, in reference to cases then under his care in Guy's Hospital:—

Various Forms of Bright's Disease.—Discovery of Casts in Urine, not of high practical importance.—Treatment of Renal Dropsy.—Salines, Iron, Elaterium, &c.

The cases of Bright's disease were very numerous. Dr. Wilks said that our prognosis depended altogether upon the

power of diagnosing the age of the disease. In cases of chronic degeneration of the kidney, of course, nothing but alleviation could be expected; but in more recent cases, and those associated with dropsy, the disease was curable up to a certain period, and, therefore, it became very important to discover the exact duration of the malady. It was for this reason that the microscope had been so diligently used in the expectation of determining this point; but, although in many cases very interesting facts might be observed, he thought, as a rule, that the investigation of the character of the casts of the tubes had not been fraught with the good result which had been anticipated. He said so not only from his own observation, but from having known very erroneous diagnoses given as to the character of the malady by those who had relied too much upon the diagnositic value of these casts. The plan of treatment for renal dropsy at Guy's was very much that which was many years ago adopted by Bright, with the exception of the cupping on the loins, which was now very rarely adopted. The patient was wrapped in flannel, and action on the skin promoted by occasional warm or air bath, Dover's powder and a simple saline of liquor ammoniæ acetatis with antimony, at the same time purging by jalap powder or elaterium, and during the convalescence, the administration of iron, as Bright recommended. This Physician, as is known, denounced the use of saline diuretics, as injurious to a kidney which was inflamed, but this opinion has been impugned. Dr. Wilks stated that there certainly was a time, in many of the cases, where the saline matters so administered were thrown off by the kidneys, with a proportionate amount of water, and thus a diuretic effect obtained; but, on the other hand, he could confirm Bright's observation as to their very frequent harmfulness; that after giving medicine of this kind, the renal secretion would become more scanty, and all the other symptoms of the disease more aggravated. The elaterium is now very constantly given in the form of a pill, which is less apt to cause sickness. A patient, an Irishman, had taken as much as one grain of the extract every other day, and at each purging his dropsy lessened, until, having been of immense size, he was reduced to his ordinary proportions. The great value of purging in the dropsy of renal disease is probably due, not only to the water which is evacuated, but to the urinary salts which are also carried off by the intestines.

Value of Turpentine as a Styptic.

Dr. Wilks said that he believed this old-fashioned remedy, turpentine, did not hold the place amongst styptics which its merits deserved. He had long been in the habit of giving it, and often found it arrest hæmoptysis when other ordinary remedies had failed; also in one or two cases of purpura hæmorrhagica it had been very beneficial.

The Treatment of Chorea—Violence of the Jactitations no Test of the Severity of the Disease.

A girl with chorea had been in the Hospital a week, and was considerably better on the treatment of a little syrup and water. Dr. Wilks did not deny the value of zinc, iron, and such remedies, for tonics were generally useful; but he often refrained from giving a medicine when he found his clinical clerks looking upon it in the light of a remedy for the disease, and when he wished to show them the course towards recovery which such a malady as chorea generally pursues when the patient is removed from home to a Hospital. He also made the remark, that if those exceptional cases be not considered which are fatal, the worse the chorea the better the prognosis; that if the jactitations be very violent the patient is generally well in a week or two; whereas when they are less severe a longer time is required for their abatement; and if the disease should exhibit itself in the form merely of a fidgety movement, all treatment is very often unavailing. This should be remembered by those who may boast of some new drug having cured a most violent attack of chorea.

So-called Gastric Fever.

A child with gastric fever was convalescent. This disease Dr. Wilks had never regarded as a specific form of fever, but a pyrexia, dependent upon gastro-intestinal disturbance, and of various durations. Seeing a large number of cases at the Infirmary for Children, he adopted a simple method, which was efficacious in the majority – the administration of saline rhubarb powder, composed of sulphate of potash and rhubarb, for a few days, until the febrile symptoms subsided, and then quinine. He never gives mercury.

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Medical Times and Gazette.

SATURDAY, FEBRUARY 6.

SUDDEN DEATH.

Jeremy Taylor, in a passage of great force and beauty, enumerates the many ways and manners in which death may overtake us. But although he has collected, in a string of bold antitheses, the most diverse and unexpected calamities, experience could hardly furnish, nor imagination fabricate, so wholesale and horrible an instance as has recently occurred.

It is not in our province to swell the chorus of terror which the event has called forth. Already comments the most contradictory have appeared before the public, and doubtless many more versions will arise before the proverbial nine days have come to a termination. Neither is it honest to raise the cry of superstition, always so ready in the mouths of our Protestant countrymen. At the deeds of an Inquisition, we may truly say with the poet,—

"Tantum relligio potuit suadere malorum;"

but, in this example, the faithful were themselves the victims, and the "auto-da-fe" was only accidentally consummated by martyrdom. It is the case of the Galileans on whom the tower fell; and although we may point out certain proximate efficient causes to the catastrophe, it would be as unjust as unscriptural to suppose that these were more sinful than others.

There seems no doubt, however, that the observances and festivals which terminated so tragically were of the character of a revival. The dangerous effects of these well-meaning, but overstrained, manifestations of religious zeal, in a Medical point of view, have been ably described in our own country. It is another evidence of the strange uniformity, or, as it may be termed, polarity, in truth, that from one and the same excess, even in a meritorious direction, results the most melancholy should ensue, in countries far divided, under ecclesiastical systems not only different, but antagonistic. It is obvious that the machinery of the fatal issue differs entirely in the two cases: the revivalists of our country endangered health and reason by religious excitement uncontrolled; while those of the Spanish colony, true to the materialism of their church discipline, actually burned the bodies of those whose senses only were to be kindled, and whose minds were to be inflamed by the blazing of the decorative fire.

The introduction of a sensational and theatrical element into religion lies at the root of the danger in each case; and in this latter accident it is singular how exactly the scene of the theatre is reproduced. We have the flimsy, combustible fabrics, the pasteboard properties, and the wooden structure, dried, heated, and prepared by long continuance of artificial illumination. All this, *mutato nomine*, is what we read one morning, some years since, when the news came that, after a fortnight or so of night and day performances, an extra blaze of gas was turned on for a masked ball, until the heat, never allowed to lessen, rose to ignition, and in a few hours the great theatre in Covent-garden was a heap of ruins. In that

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case, fortunately, the chance of time prevented horrors which have been inseparable from such scenes elsewhere. We now see the insufficient means of egress reduced to total blocking up by the agonised and frantic struggles of the victims themselves; and we have the maddening powerlessness of brave and strong men outside to help the sufferers.

Beyond this, there is singularly little to be said. Fire has shown once more that it is a good servant, but a bad master; and, familiar as it is, has once more, like the tamed lion, turned upon its keepers. Architects and clergy can hardly be blamed for the insufficiency of egress, which is common to all ecclesiastical structures, in such exceptional circumstances. Perhaps some good may come out of the great evil, in leading not only theatrical managers and proprietors of large halls, but builders and churchwardens, to reflect on the frightful possibility of a like accident in the very heart of London. Most men will shudder when they remember the double galleries, the well-staircases, and the massive closed doors of their parish church. Our ritual does not, indeed, load the interior with gauze and pasteboard, but the old pews, pulpits, and other woodwork, cased thickly with paint and varnish, would burn like tinder, in spite of the venerable parish engine.

It is to be hoped that the disaster will not furnish material for sectarian reviling. Even if it should, let it be far from us. The Medical man, of all others, ought to be tolerant; whatever differences of doctrine may exist, it is his part to join heartily in the suffrage of a litany uttered alike in our churches and in the one which is now a sepulchre. While we pray to be delivered from plague, pestilence, and famine, let us add, in true charity and catholicity of spirit, from the sudden death which has fallen on two thousand of our fellow-creatures.

THE WEEK.

THE TOWNLEY CASE.

BELOW we publish what we may regard, we hope, as the last act of the Townley tragedy, and we publish it with great pleasure for more reasons than one. It is of great importance that justice should be at last vindicated, if not fully satisfied. No convicted murderer, once respited, has ever, we believe, been delivered over to the executioner; we are, therefore, content that Townley should be now condemned to penal servitude for life. But of perhaps still greater importance in our eyes is the complete vindication of rational Medicine contained in this last Medical report—of true Medical science as distinguished from the hazy theories of amiable enthusiasts in insanity. Admit the grounds on which it was attempted to found Townley's lunacy, and you may do away with punishment for crime altogether, for you do away with crime. Let a man only be shrewd enough, or brazen enough, to assert, that as he was brought into the world without his leave being asked, therefore he is not justly responsible for what he does in it, and no man has a right to judge him for any of his acts—though he is ready to judge and punish others, as Townley did that poor girl—let him only show or affect such cynical indifference and depravity as will shock any amiable expert who may examine him, and he will be deemed so wicked that he ought not to be punished. The greater his crime and hardness of heart, the greater his safety. Admit such doctrine as this—and we may as well—we *must* logically accept the famous or rather infamous theory propounded some years ago by a celebrated authoress—that no man is responsible for his acts; he is the creature of his organisation, the victim of his cerebral and corporeal endowments. Townley adopted this theory, and, to his surprise, found that it was accepted as proof of his irresponsibility;—to his surprise, we say, for he himself acknowledges, "I expected to be hanged, because I killed her; and am not such a fool as not to know that the law hangs for murder." Unfortunately for him, he has now fallen into the hands of able and scientific Physicians, who, while they have deservedly high reputations for their knowledge of insanity, have no crotchets as to crime and insanity being convertible terms, and have no special tender desire to protect criminals against society, while forgetting that society needs protection from criminals; they bring to bear on his case what are called common-sense views, as well as scientific and special knowledge, and the result is a most admirable report, in which the so-called "proofs" of his insanity are blown to the winds.

We will only add that society at large is much indebted to the magistrates of Derbyshire for the pressure they put on the Home Secretary. Had it not been for their pertinacity and courage, the baseless hypothesis of Townley's insanity would probably never have been exploded, and a most dangerous precedent would have been established.

The Visiting Justices of Derby have received the following important communication from Sir G. Grey:—

"Whitehall, Feb. 1, 1864.

"Gentlemen,—I am directed by Secretary Sir George Grey, with reference to previous correspondence with you as to the case of George Victor Townley, to inform you that, with the concurrence of the Lord Chancellor, he requested Dr. W. C. Hood, and Dr. J. C. Bucknill, Visitors of Chancery Lunatics, together with Dr. Meyer, the Medical Superintendent of the Criminal Lunatic Asylum at Broadmoor, and Dr. Helps, the Medical Superintendent of Bethlehem Hospital, to examine into Townley's state of mind, and to report thereupon.

"Sir George Grey has received from these gentlemen a report, a copy of which is herewith transmitted to you. While the letters—copies of which were sent to you on the 23rd and 25th ult.—from the magistrates who signed the certificates of Townley's insanity, leave no reason for doubting that they were convinced of his insanity at the time when the certificates were signed by them, the present report from four Medical gentlemen of great experience in mental diseases appears to Sir George Grey conclusive as to Townley being of sound mind. A certificate to that effect, as required by the Act, 3rd and 4th Victoria, cap. 54, has since been received by the Secretary of State.

"I am further to inform you that, taking all the circumstances of this case into consideration, her Majesty's Government are of opinion that it would not be right that the capital sentence should now be carried into effect, but that it ought to be commuted to penal servitude for life. This course has, therefore, been taken, and the prisoner will be dealt with accordingly.

"I am to add that it is the intention of her Majesty's Government to propose an amendment of the Act under which the certificates of insanity in this case were given.

"I am, Gentlemen, your obedient servant,

"H. WADDINGTON.

"To T. W. Evans, Esq., M.P., and W. Mundy, Esq., M.P.

"Bethlehem Hospital, January 28.

"We, the undersigned, having been requested by Secretary Sir George Grey to examine into the state of mind of George Victor Townley, a prisoner under sentence of death in Bethlehem Hospital, and to report our opinion as to whether he is of unsound mind, report as follows:—

"We have carefully considered the copies of papers supplied to us, and on the 26th and 27th days of this month we have had two lengthened interviews with the prisoner, and the conclusion at which we have unanimously arrived is, that George Victor Townley is of sound mind.

"The demeanour of the prisoner during each interview was calm and self-possessed, with the exception that at the commencement of the second interview he displayed and expressed annoyance at the repeated examinations to which he was being subjected. Neither in mode of speech nor in look and conduct was there any sign of insanity observable in him.

"His prompt apprehension of the purport of our questions, and the manner in which he replied to them, indicated the possession of good intellectual capacity.

"The opinions which he avows, that men, as the creatures of circumstance, are not justly responsible for their actions, are opinions at which he appears to have arrived by ordinary processes of reasoning.

"That he knows that he is responsible for the commission of crime is made clear by his own words used to us,—'I expected to be hanged because I killed her, and am not such

a fool as not to know that the law hangs for murder. I did not think of it at the time, or I should not have done it.'

"We think that his statement, that he killed Miss Goodwin to repossess himself of her as his property, was an afterthought adopted to justify his crime. He acknowledged to us that he had come to this opinion after the deed was done.

"The supposition, that he killed Miss Goodwin under the influenee of the opinion that in so doing he was repossessing himself of her as his property, is inconsistent with his own repeated statement to us, that without forethought of any kind he killed her under the influence of sudden impulse.

"He explained to us, that by killing Miss Goodwin to repossess himself of her as his property, he simply meant that he took her out of the hands of his enemies, and placed her in a position where she would wait, and where he would rejoin her when he died.

"The prisoner endeavoured to represent the catastrophe to us as due to the influence of sudden impulse; but the details which we elicited from him show that he used threats of murder for some time before he struck the first blow. We think that his clear memory of the events attending the crime, and also the attempts which he has made to misrepresent the state of his mind and memory at the time of these events, are evidence of his sanity.

"We are of opinion that he does not entertain any delusion on the subject of a conspiracy against him, but that he uses the term 'conspiracy' to express the real opposition which he has met with from the members of Miss Goodwin's family to his engagement with her, and also to express the feeling that they are hostile to him.

"We have considered the evidence of hereditary predisposition to insanity given in the papers supplied to us, and our opinion of the prisoner's state of mind has not been altered thereby.

"We examined the apothecary and also the chief attendant of Bethlehem as to the conduct of Townley since he has been in detention at the Hospital—both of them have had him under daily and special observation—and they assure us that neither in conduct, manner, nor conversation had they been able to observe in him any of the peculiarities which they are in the habit of remarking among the insane.

"W. Charles Hood, M.D., Visitor of Chancery Lunatics.
"John Charles Bucknill, M.D., Visitor of Chancery Lunatics.
"John Meyer, M.D., Medical Superintendent of the Criminal Lunatic Asylum.
"W. Helps, M.D., Medical Superintendent of the Royal Bethlehem Hospital."

ENLARGEMENT OF THE LONDON HOSPITAL.

The necessity for extending the only great Hospital that ministers to the wants of the largest mass of the labouring classes of London, namely, that concentrated around the docks, warehouses, and factories of the east, has long been urgently felt. The committee of the London Hospital have, therefore, determined to build another wing, which will afford greater accommodation for the out-patients, as well as increase the number of beds. The Hospital at present contains 450 beds, which are always full.

THE MEDICAL EXAMINATIONS IN THE UNIVERSITY OF EDINBURGH.

The following paragraph, which has appeared in the *Scotsman*, announces the success of the arguments which Mr. Syme has recently addressed to his colleagues in reference to the mode of conducting the examinations in the University. As by far the greater number of students who graduate at Edinburgh attend the classes of the University, and the Professors are already the Examiners, the practical effect of Messrs. Syme and Christison's innovation will be simply a subdivision of the examinations for Medical and Surgical degrees in the University of Edinburgh. Still, there are strong objections to the measure, on the ground that it is a public affirmation of the principle, that the student is to be examined for his degree or license by his own teacher. We should excessively regret to see a like acknowledgment publicly made by any examining body in England. Its propriety will, doubtless, be a subject for discussion in the General Medical Council. It is bad enough that a board of examiners should be composed solely of teachers; but that the opinion of the individual instructor should be made the ultimate test of the proficiency of his own pupil, is a proposition which is opposed to the plainest and most obvious dictates of propriety and right feeling. By associating Medical assessors with the Professors in the examinations, the Edinburgh Senatus have sought to remove the objectionable aspect of their recommendation. But we repeat that we are sorry to see the principle we have animadverted on thus publicly sanctioned by the first Scottish Medical University:—

"The Senatus Academicus of the University of Edinburgh, at their meeting on Saturday last, agreed to sanction the following recommendations of the Medical Faculty:—1. The Medical Faculty recommend that there should be from three to five class examinations each session, conducted by means of questions and written answers, without aid from books or notes. 2. That with each Medical Professor who conducts written class examinations there shall be associated one or more assessors, to be selected by the Medical Faculty from the Examiners in Medicine or from the members of the Faculty, to whom the questions to be proposed shall be submitted for approval, and who, along with the Professor, shall examine the answers and determine their value. 3. That in the event of any student gaining 75 per cent. of the marks in any department, he shall be exempt from further examination on that subject when he appears for his degree examination. 4. That in the event of a student gaining 60 per cent. of the marks in any department, he shall only be required to undergo an oral examination on that subject when he appears for his degree examination."

SIR WILLIAM ROBERT WILDE, M.D.

We are delighted at having to announce that the order of knighthood has been conferred on our distinguished contributor, Dr. W. R. Wilde, of Dublin, with unusual marks of honour. After conferring the Order of St. Patrick on Lord Dufferin—

"His Excellency, the Lord Lieutenant, who retained his seat in the chair of state after the Chapter of the Order of St. Patrick had broken up, when the Knights Companion had retired from the Throne Room, said:—

"Is Mr. Wilde here?

"Dr. W. R. Wilde came forward, when

"His Excellency said: Mr. Wilde, I purpose to confer on you the honour of knighthood, not so much in recognition of your high Professional reputation—which is European, and has been recognised by many countries in Europe—but to mark my sense of the services you have rendered to statistical science, especially in connexion with the Irish census.

"Dr. Wilde here knelt before his Excellency, who, having been handed a sword, touched him in the customary manner, and said, 'Arise, Sir William Wilde.'

"A more popular exercise of the viceregal prerogative," says the *Freeman's Journal*, "nor one more acceptable to all classes in Ireland, could not possibly have been made, for no member of the Medical Profession has been more prominently before the public for the last twenty-five years, in all useful and patriotic labours, than Dr. (now Sir William) Wilde. He has cultivated, with effect, a special branch of the Profession, which has earned for himself a wide and just reputation in Europe and America; and the fact that he established, and has recently endowed, one of the most useful Hospitals of the metropolis, will, we are sure, never be forgotten by the citizens of Dublin and the poor of Ireland. He has been so long and so prominently before the public as a popular writer, Medical teacher, statistician, and antiquary, that an enumeration of his labours would occupy more space than this passing notice of his recent elevation would justify. Yet we cannot refrain from reminding our readers of the interest with which his fresh 'Narrative' of Eastern Travel was received in 1839, a work for which Alexander von Humboldt forwarded to him an autograph letter of thanks from the then King of Prussia, and which, like most of his works, speedily ran into a second edition. His book on the 'Vital Statistics and Medical Institutions of Austria,' published soon after, attracted the attention of the Government, and caused him to be associated with Lieutenant (now Sir Thomas) A. Larcom, and others, in compiling the Irish census of 1841, when he laboured effectively to advance the science of vital statistics in

Ireland. He was appointed Assistant Census Commissioner in 1851, and again in 1861, the labours of which latter have but just terminated. Sir William Wilde is, perhaps, the only person now living amongst us who has taken part in the compilation of three successive censuses for Ireland; and his public services in this department, including the valuable and comprehensive volume on the analyses of the great pestilential period from 1846 to 1852, have, no doubt, induced the viceroy, as stated in his address, to compliment him in the distinguished manner we have the pleasure to announce. Sir William Wilde's Professional works have been numerous, and many of them have been translated into the leading European languages, and included in the student's curriculum both in Germany and America. Amongst his miscellaneous writings we may notice the interesting volume on Dean Swift, his charming 'Beauties of the Boyne,' and his 'Irish Popular Superstitions,' all of which were warmly appreciated by the public. Recently he published a most erudite catalogue of the Irish antiquities in the Royal Irish Academy. A work of immense labour and research, for which he received the thanks of all the great archeologists of northern Europe. Sir William is a member of most of the learned institutes of the continent, and has received many honours from abroad. The Academy of Science of Upsala made him an honorary member, and not long since the King of Sweden presented him with the decoration of the Polar Star. The distinction, therefore, which his excellency has now so graciously bestowed will be as fully appreciated on the continent as at home; and we have only to say, long may Sir William and Lady Wilde live to enjoy his well-deserved honours!"

CAN A PHYSICIAN SUE FOR HIS FEES?

In our article, entitled "Annus Medicus, 1863," we stated:—"In Gibbon *v.* Budd it was decided that a Member of the Royal College of Physicians has a legal right of action for his fees without a special contract. This right arises from a bye-law of the College. We much regret it, as likely to lower the *status* of a Physician in the estimation of the public." Two of our Medical contemporaries declare, apparently in all seriousness, that this statement is "a complete error," and that we have done the College an injustice. The facts as to a Physician's legal right to his fees are simply these:—Before the passing of the Medical Act he could only claim under special contract. The judgment in Veitch *v.* Russell (3 Q. B., 28) was to this effect:—"A Physician has in general no legal right of action for his fees, but he may have it by actual contract." And Lord Kenyon, in another action, said,—"It has been understood in this country that the fees of a Physician are honorary, and not demandable of right." The Medical Act gave to every registered Practitioner the right to recover in a court of law "reasonable charges for Professional aid, advice, visits," etc., but added, "provided always it shall be lawful for any College of Physicians to pass a bye-law to the effect that no one of their Fellows or Members shall be entitled to sue in manner aforesaid in any court of law," etc. The College of Physicians did pass a bye-law preventing its *Fellows* from suing under the Act, but it did not apply the bye-law to its *Members*. We had stated all this at length in a previous article (May 2, 1863), and did not think it necessary to go into details in our *résumé* of the events of the year, and we do not see how it can be maintained that the phrase, "this right (of Members to sue for their fees) arises from a bye-law of the College," is "a complete error," and an injustice to the College. It may be said that the expression was an elliptical one, and assumed that our readers had some previous knowledge of the subject; not a very unnatural assumption, we think. Taken purely by itself, perhaps it does seem to impute to the College a sin of commission, while the sin was really one of omission. By a *laché* on its part, its Members can use the right conferred by the Medical Act, though its Fellows are forbidden to do so. Our contemporaries go on to say—"It is, therefore, a simple error to say, that this right arises from a bye-law of the College, and that it is likely to lower the *status* of the Physician in the eyes of the public." How this statement can be a simple error, we must leave to grammarians and our contemporaries to decide; to us it appears that, if erroneous, it must contain two errors—one of fact, the other of judgment; and as to the latter, we are content to again quote Lord Kenyon. After stating that the fees of a Physician are honorary, and not demandable of right, he goes on to say—"And it is much more for the credit and rank of that honourable body, and perhaps for their benefit also, that they should be so considered. . . . . I much doubt whether they themselves would not altogether disclaim such a right as would place them upon a less respectable footing in society than that which they at present hold." We do not comprehend how our contemporaries can support their views, unless on the ground that the Members of the College are not, like the Fellows, Physicians—absurdly and unjustifiably confounding them with the new order of Licentiates. It cannot be supposed that the College deny the members to be true Physicians in all senses of the word; or that they can be indifferent to their repute and *status*. We hold that the omission of the words "or members" in their bye-law was simply an error in judgment, which may have the effect of raising an unnecessary distinction between the junior and senior ranks of Physicians. It is not likely, however, that the public will confound one who lives and practises as a Physician with a general Practitioner and L.R.C.P., spite of the *laché* of the College, which we never expected to see justified in the pages of a Medical Journal.

REPORTS OF PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE I.—FEBRUARY 2.

After a few introductory remarks, Professor Huxley stated that further observation and reflection had served to convince him more fully of the truth of the tripartite division of the vertebrate sub-kingdom, which he had announced in the lectures delivered at the College last year. The first section or province (*Ichthyopsida*), containing the Fish and the Amphibia, all possess, he said, branchial respiratory organs, at least at some period of their existence: in the embryonic condition they are without amnion, and the allantois is absent or rudimentary, their blood corpuscles are nucleated, and their lower jaw does not articulate directly with the skull. The members of the second province, comprising the classes Reptilia and Aves (*Sauropsida*), never possess branchiæ; have the amnion and allantois well developed, the latter generally taking on a respiratory function; their blood-corpuscles are nucleated; each ramus of the lower jaw is composed of several pieces, and articulates by means of the quadrate bone with the skull; they have a single occipital condyle, and the appendages of their epidermis take the form of scales or feathers. The third division contains the Mammalia alone; these never have branchiæ; the amnion and allantois are always developed; the large majority of their blood-corpuscles are non-nucleated; each ramus of the lower jaw is simple, and articulates with the squamosal element of the skull; there are two occipital condyles; the epidermal appendages are in the form of hair, and the females have mammary glands. As far as our present knowledge extends, both of living and extinct vertebrate animals, these three great groups are absolutely defined in nature; while, on the other hand, between fish and amphibia, birds and reptiles, respectively, numerous points of affinity may be found.

The class Mammalia being the subject of the present course, Man, as the form with whose anatomy most of the audience were best acquainted, was selected as a type, and a sketch of the salient point of his structure was given first, to assist in following out in subsequent lectures the various modifications of organisation found in other mammals. The lecturer commenced a description of what he termed the "zoological anatomy of man" (having especial reference to those parts which offer the best terms of comparison in descending through the mammalian series) by stating that that which first strikes

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the most superficial observer of the human body, is the erect attitude. This alone, however, is not distinctive; it is shared by the penguin and kangaroo, but in these animals the body is suspended on the flexed femur; the vertical trunk placed on an extended hind-limb is peculiar to man. The principal remaining external zoological characters of man are—the plantigrade sole, the backward arching of the spine in the dorsal region, the hollow in the lumbar region, the wide chest, the muscular prominences formed by the powerful abductors of both pairs of limbs, and the peculiar proportions of the body, the length from tip to tip of extended anterior extremities equalling the height, the vertical central point being a little below the symphysis pubis, the whole height being seven or eight times the vertical height of the head, the legs being longer than the arms, and the proximal segments of both limbs longer than the distal. The pollex is perfectly free and opposable, and does not lie in the same plane as the other fingers; the palm is very nearly square; the carpus is shorter than the metacarpus, this shorter than the digits; the forearm capable of free rotation. In the lower limbs, the hallux is only imperfectly mobile, and scarcely at all opposable, and lies nearly in the same plane as the other toes; the second toe is generally the longest; the sole is longer than broad; the tarsus longer than the metatarsus, this longer than the digits; there is more or less union by integument or "syndactyly" of the three middle toes. One of the greatest peculiarities of the human body is the distribution of hair upon its surface; on the head this is more abundant on the dorsal than the anterior aspect, on the body more developed in front than behind, on the limbs more on the extensor than the flexor surfaces, without relation to front or back. The nails are comparatively flat, and do not cover the whole surface of the phalanx on which they rest. The septum of the nose is narrow and elongated, causing the external projection of the organ; the nostrils are directed downwards. The penis is pendulous, the testes contained in a well-developed scrotum placed behind the root of the penis, the perinæum is distinct, and the mammæ are pectoral.

The special zoological characters of the human skeleton are as follows:—The spinal column consists of thirty-three vertebræ, of which seven are cervical, twelve dorsal, five lumbar, five sacral, and four coccygeal. In the adult state it forms a double sigmoid curve, caused, in the dorsal and sacral regions, by the conformation of the vertebræ—in the cervical and lumbar regions, by the elasticity of the *ligamenta subflava* connecting the posterior arches. In the skull, the occipital condyles are placed, if not exactly in the centre, within the middle fifth of the base, being slightly behind the centre in the lower races. The mastoid processes are largely developed. The cranio-facial angle in well-formed skulls is about 90°, and probably never exceeds 120°. In consequence of the enormous size of the cerebral cavity, the length of the head is always more than twice the length of the basi-cranial axis. (a) In the interior of the skull the ethnoid and presphenoid meet in the floor of the cavity, and are not concealed by the frontal; the inner surface of the petrosal has no fossa for the lodgment of a process of the cerebellum; and the planes of the occipital foramen, cribriform plate, and tentorium are parallel to one another. The hyoid bone is comparatively narrow from above downwards, and, though concave posteriorly, not deeply excavated. In the limbs the pectoral arch has a well-developed clavicle, and a large and broad scapula; the humerus has a large globular head, and at the lower end a rounded facet upon which the radius plays, allowing free pronation and supination. The form of the pelvis is eminently distinctive—the breadth and curvature of the sacrum, the great extent and concavity of the inner surface of the iliac bones, the sigmoid flexure of their upper margin, the mode in which the pelvis is set on the spinal column, the breadth of the upper aperture, and the width and shortness of the whole cavity, may specially be noted. In the lower extremity may be observed the great angle at which the head of the femur is set on its shaft, the greater length of the internal than the external condyle, the flatness of the upper surface of the tibia, the form of the ankle-joint, and the downward projection of the malleoli.

To sum up the peculiarities of the human skeleton, we find that its special characteristics, as distinguished from those of the general Mammalian type, have all (leaving aside the upper extremity) reference to the erect posture. To this end contribute the form of the ankle-joint, of the upper surface of the tibia, of the condyles and head of the femur, and of the pelvis; the curvatures of different parts of the spinal column, the position of the ribs, the breadth and flatness of the sternum, and the situation of the occipital condyles. Moreover, related to the same posture are the absence of great bony crests on the skull for the attachment of the muscles which support the head in the lower animals, the smallness of the jaws and teeth, and even the great mass of the brain, which would be of little avail unless the anterior pair of limbs had been set free to carry out its requirements.

(a) These terms are explained in the last Course of Lectures. See *Medical Times and Gazette*, 1863, vol. i., p. 607.

FROM ABROAD.—MATTEUCCI ON GALVANISM IN TETANUS—INNOCUOUSNESS OF SMALL QUANTITIES OF VERDIGRIS—THE LESION PRODUCED BY RAISING CHILDREN BY THE ARM—ACTION FOR MALPRAXIS IN AMERICA.

THE celebrated Italian physiologist, Matteucci, has addressed a communication to the French Academy of Sciences upon the employment of the continuous electrical current in the treatment of tetanus; and in a note to M. Flourens he earnestly begs that the attention of physiologists and Physicians may be turned to the subject, as he firmly believes that a therapeutical procedure will result, which, if it do not effect a cure in this terrible disease, will, at all events, produce great diminution of suffering. Seeing recently, in an American journal, the fact stated, that the continuous current had been advantageously employed in a case of hydrophobia, he called to mind a case of tetanus published many years since by Nobili and himself. It is well known that a condition of tetanic contraction may be excited under two circumstances, viz., the interrupted passage of the electric current into the nerves and muscles of an animal at very short intervals, and the continuous passage of the current into the nerve in the opposite direction to its ramifications. It has been the object of some of Professor Matteucci's communications in the *Philosophical Transactions*, to explain how this is brought about by the production of secondary polarities. What, however, we have to do with at present is the fact, that a nerve which has in this way acquired the property of exciting tetanic contractions, instantly loses such property as soon as it is submitted anew to a continuous current. Reasoning from analogy it was thought that tetanus might be assimilated, as regards the state of the nerves, with the condition of an animal in which interrupted currents or a continuous inverse current have been employed, and the hope was entertained that a direct continuous current would produce the cessation or diminution of the contractions in the one case as in the other. And so in effect it was found that the patient, while he was subjected to a continuous electric current from 30 to 40 pairs of plates, no longer suffered the same violent convulsions, and was able to open and shut his mouth. This amelioration continued during several minutes, after when the contractions returned, notwithstanding the passage of the current. The current was suspended awhile, and then reproduced with from 50 to 60 pairs. Amelioration again followed; and these alternations continued during several hours, the salutary effects of the current gradually diminishing, and at last ceasing entirely.

MM. Pécholier and Saintpierre have forwarded an interesting note to the same Academy, giving an account of an investigation which they have been conducting respecting verdigris (basic-acetate of copper), in the department of L'Herault, in which this substance is abundantly manufactured.

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Energetic poison as it is known to be when taken in a considerable dose, verdigris is well tolerated in fractional quantities, continued even for a long period. Poultry fed almost exclusively on the refuse of the raisins employed in its manufacture, and which always contains ponderable quantities of this salt, thrive excellently and fatten rapidly. The workpeople also, although in constant contact with this substance, and the absorption of which is proved by its detection in their urine, also enjoy excellent health. Copper colic is unknown among them. The absence of chlorosis in girls at the age at which it is usually observed is also remarkable. In its pulverulent state, the verdigris, like all other dusts, irritates the ocular and respiratory mucous membranes.

M. Verneuil brought under the notice of the Paris Surgical Society the accident which is not infrequently met with in children when raised by the hand. A severe pain is felt, and the head falls pendent and motionless, and supination is no longer possible. M. Goyraud attributed this occurrence to a displacement of the triangular cartilage of the cubito-carpal articulation, and stated that forced supination imparted to the arm causes the immediate disappearance of all the symptoms. The case now related by M. Verneuil, in his opinion, entirely confirmed this view. MM. Giraldès and Marjolin, however, believe that the seat of the lesion is not in the wrist at all, but in the elbow, and that it is nothing else than an incomplete dislocation of the head of the radius, relief being at once obtained by either forced supination or pronation. M. Chassaignac has seen a good many of these cases, but has never found the pain or paralysis cease after the manœuvre described by M. Goyraud.

Formerly we were accustomed to consider unjust actions for malpractice almost as an American peculiarity; but certainly the frequency with which these have of late years occurred among ourselves, leaves us but little ground for congratulation. Indeed, probably from the more determined defensive position assumed by the Profession, actions of this kind have now become much rarer in the United States. One has, however, recently been brought at Newport, New Hampshire, which has excited much interest; the trial, in fact, lasted a week, and arose from a charge of negligence in treating a fracture of the arm, whereby a false joint, requiring an operation for its remedy, was induced. The array of Medical witnesses on opposite sides—so common with ourselves—was present, but the jury found a verdict for the Surgeon in ten minutes, the ill result of the case being evidently due to the carelessness of the patient. We notice the case in consequence of a somewhat novel feature in the evidence of Dr. Bigelow, Professor of Surgery in the Harvard University, under whose care the patient came after the failure of a seton to induce osseous union. His evidence was in favour of the defendant; and the question as to malpraxis having been replied to, one would have thought the vocation of the witness ended. Not so the Professor, for he detailed to the court all the steps of the operation which he had deemed advisable for the remedy of the deformity, and which restored to the patient the use of his arm. "The gristly ends of the bone were cleaned and turned out so as to get at them, and the periosteum was turned back from each end. The periosteum is a membrane which forms the bone, so that by turning this back like the cuff of a shirt-sleeve for about an inch from the nearest healthy bone, and then sawing off this uncovered bone, and by then bringing the cuff down again where it belonged, it would go at once to work to make new bone, and this bone would cause the broken place to unite, that is, it would solder it together. This was the operation which was done. The periosteum was stripped back from the adjoining sound bone, which was sawed off with the gristle. The cuff was then turned down again, and the two ends of the bone brought together, and wired close with a silver wire passed through holes drilled for that purpose. The periosteum then caused the fragments to unite by new bone, shaped somewhat like the solder round the joint of a lead-pipe." The court even became interested in the history of the operation, and asked the witness, "To what extent had this operation been known or practised in Surgery?" The witness replied, "Only a few times. I have done it several times myself with success. The first time I did it I supposed I had invented it; but a short time, however, after my first operation, there came to this country an account of a similar operation just done in Europe, of which I had not heard. I have seen only one American case published here since my first was published."

FIRST IMPRESSIONS OF THE BRITISH PHARMACOPŒIA.

By A CHEMIST.

1. It is stated that £6000 have been expended upon it; = £13 10s. 3d. per page, for a mere compilation. The first 160 pages do not contain an original observation, fact, or expression. Would not £600 have been excessive?

2. The abolishing drachms and scruples seems to be frivolous.

3. The Act of Parliament for giving the Council the copyright—fixing the price of the volume at 10s. 6d.—postponing the issue of the 6s. edition—urging the possession of the book by all Medical men and druggists—are mercenary tricks, worthy of the astutest quacks.

4. The extremely limited range of the Materia Medica speaks the limited resources of our art, as apprehended by its compilers. In fact, if this book represents the current amount of therapeutical knowledge, practical Medicine has retrograded vastly, and the question should be entertained how it is to be advanced.

5. In all respects the British Pharmacopœia contrasts most unfavourably with the new edition of the American Pharmacopœia.

6. What is the meaning of the adoption of substances into the list of Materia Medica, and forms for preparing the same among preparations?

7. Has *glacial acetic acid* any use in medicine?

8. Acid. Hydrochloric. The process will not produce it.

9. Preparation of Lard—Frivolous.

10. White Bismuth, page 190. Is the chemical nature of the product not known?

11. Linseed Poultice. The addition of olive oil?

12. Conf. Scam.—*Crude commercial scammony*, or resin of scammony—to be used indifferently. Surely this allows two very different results.

13. Conf. Sulphuris. Frivolous, empirical.

14. Why reject Decoct. Hordei Co.?

15. Enema Magnesia Sulph. Frivolous.

16. Ext. Col. Co. Commercial scammony or resin of scammony may be used indiscriminately. Surely a great mistake!

17. Ext. Tarax. Not an extract, but an inspissated juice.

18. Resin of Podophyllin. The process given will produce a resin nearly, if not quite inert. The eclectics who introduced podophyllin, assert that its efficacy depends upon the retention of the several cognate resinous substances yielded by the root to sp. rect. If only one of these resins—that soluble in ether—is used, it is not podophyllin. The employment of acid. hydrochlor., therefore, is fatal to the therapeutic value of the result.

19. Pulv. Antimonialis. Bad—not James' powder.

20. Page 317, Scammony Res., called resin of jalap. A printer's error, doubtless, but this shows how loosely the book has been edited.

21. Suppositories. Frivolous and bad—cow butter much better as a vehicle.

22. Troches. Frivolous—so, also, many other preparations, *ex. gr.*, Ung. calomel., Ung. creosoti, Ung. gallæ, etc., etc. Surely the proportions in which substances may be combined with lard is a proper subject for each several prescription?

23. Liq. Arsenicalis, and other preparations, which ought to be strictly chemical, and not merely empirical forms.

Upon the whole, my impression is, that the British Pharmacopœia is a sad failure.

A. It does not represent the present state of therapeutics.

B. It is half made up of frivolous prescriptions.

C. It contains scarcely a single new substance or form, except a few pilfered from private persons—chemists.

D. It retains many mere empirical formulæ, borrowed from *quack medicines*.

E. If taken to represent the state of practical Medicine in this country, it would show that it is behind every other country in the world.

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THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF LYNN.

The town of Lynn, or King's Lynn, Lynn Regis, stands on the eastern side or bank of the Ouse, on the marshland, or Great Fen level. Richards, the author of the best history of the place, assumes that originally the town was built on the western side of the river; and, indeed, there still remains on that side a few houses and a church, constituting a small parish known as "Old Lynn." The river, at the point where the modern town stands, is wide—almost as wide as the Thames at Hammersmith-bridge; but the long, irregular, muddy banks destroy all picturesque effect. The water, also, looks unusually dirty, and overhanging it is no trace of forest or tree. There is no Kelvin Grove in Lynn; and the writer of the lovely song-book which charmed the wits and rang from the stage in the reign of good Queen Anne, in selecting Lynn for the name of one of his fair maidens, might at least have discovered a more romantic situation. But we must take the old town as it is, and there on the eastern bank of the muddy Ouse it stands, a large town now, with 17,000 inhabitants and an active commercial life.

There is a history connected with Lynn which opens up many interesting subjects for the consideration of the sanitary not less than the antiquarian scholar. It is probable that at one time the river Ouse took a natural course to the sea by Wisbeach, so that as late as the reign of our King John the Ouse at Lynn was a small and insignificant stream. The traditional account of the cause of the present large river is, that originally, when the great river made its way freely to the ocean by Wisbeach, all went well with the people of the fens or English low countries. But, behold, one day there was a great inland flood,—in fact, a local deluge,—and the waters, meeting with obstruction, carried all solid parts, loose bank, and mud, with them; at last the natural channel of the river was retarded, and the currents, still demanding way, were spread out over the lands, deluging the fens, and making them sad wrecks of lands once rich and cultivated. And then the tradition goes on further to state that the fen people, when the actual deluge was over, were tormented by water to such a degree, that they held consultation, and agreed that a channel must be cut, so that the great river should once more roll into the sea. But where should they cut the channel? It would have been wise to have cut it near the outfall at Wisbeach, which was the natural course, and was only temporarily and partially closed; but they did not see that, and, therefore, determined to divert the current by forcing it on to Lynn by the channel of the Lesser Ouse,—a feat which, when completed, rendered the harbours of Lynn and Wisbeach inconvenient and small, and, by arresting the flow of water, placed determinate obstacles both against the inland navigation and the effective drainage of all the fen districts. This mistake is presumed to have been made in the reign of Henry the Third.

The old foundations of Lynn are supposed to have been laid by the Romans, probably during the reign of Nero, and while Roman engineers were endeavouring to drain the fens and prevent the influx of the ocean. To effect these purposes it is believed that a body of colonists of Belgic and Batavian origin were brought to work under the protection of the Roman eagle. Hence, according to my authority (Richards), the name *Len*, *Lyn*, the Belgio-Celtic for a fen or marsh.

During the continuance of the Roman rule, Lynn became the mother town of the fens; afterwards it declined, and during the Heptarchy it sank almost to the last; then it rose again, and extended across from the western to the eastern side of the river. Becoming of more importance still, the town was seized, wholesale one may say, by the ruling power, the Church, and in the reign of Edward the Confessor belonged to two Bishops—Ailmar, Bishop of Elmham; and Stigand, Archbishop of Canterbury—hence it was then called Bishop's Lynn. Under the dominion of the Church, Lynn remained until the reign of Henry VIII.; for John, though he liked Lynn, did not rescue it. At last it was emancipated from the Church by bluff Harry, and made a royal town, when its name changed to King's Lynn, or Lynn Regis. In these days it has regained its original appellation, Lynn, the mother town of the Fens.

So soon as Lynn was liberated from its thraldom, it became a busy and thriving centre. It was especially celebrated for its yearly "mart," or fair, which was, and is still, proclaimed on the 14th of February, and continues for six days or more. For many years—I might almost have said centuries—this mart was the great occasion during which the townsfolk bought all their leading wares; but now it is a fair of inconsiderable importance. It had the effect of inducing commerce, and that has steadily increased. At the present time various branches of trade and exchange flourish vigorously. There is a large foreign import trade in corn, linseed, coal, and timber. The fishing trade is extensive, and there are several large manufactories for agricultural implements, and two large oil-cake manufactories.

The town itself stands in a small curve, or little haven, in the Ouse, and the river encircles perhaps two-thirds of the town on its eastern side; extending from the river into the town are several inlets, called "fleets," on the sides of which houses are built, and which act as open sewers. I shall have occasion to dwell on these when speaking of the sanitary condition of the district.

The streets are generally narrow and long, but there are some fine open spaces, and the principal market-place is one of the largest and most commanding I have ever seen. The churches, all very ancient, one excepted, are beautiful, and the antiquities are numerous. Remains of the old wall are extant. Recently some new public walks have been laid out, and afford agreeable walking-grounds and places of summer resort; but, as with Norwich, so with Lynn, the modern town reformer has to deal in his work with a place which was constructed to be fortified—where, that is to say, as many houses were laid out, or rather laid in, as could possibly be compressed into a limited space, and surrounded by ramparts accessible only by a few castellated gateways. Leaving the town as a whole, let me pass to those points relating to it which are most interesting to Medical men; and, first, to the Hospital.

THE WEST NORFOLK AND LYNN HOSPITAL.

The West Norfolk and Lynn Hospital was opened in the year 1835. It is situated a little distance from the town, and contains fifty-two beds. The building is plain and good; it is in two stories, and is admirably lighted. The wards are ten in number, and the freest ventilation is permitted by means of the windows from side to side. The gas burners are also applied to ventilating purposes during the night. Over each burner there is suspended a large funnel with an escape tube, which passes into the shaft of the chimney. This, which is a new Hospital appliance introduced by Dr. Lowe, one of the Surgeons to the Hospital, answers extremely well, and is a good, cheap, and practical means of inducing a free current of air. The floors are of deal, and are washed with soap and water; dry scrubbing has never been practised. The bedsteads, made of iron, are free from curtains, and 1102 cubic feet are allowed to each bed. The warming is by the open fire-grate. The Medical and Surgical cases are mixed, both on the male and female side, except in the accident ward, which latter is set apart for Surgical cases alone.

Improved Hospital Arrangements.

From the above general description it will be useful to pass to certain improvements which seem to me worthy of special imitation in all infirmaries. The method of ventilation during the night, by means of the gas-burner, is an excellent provision. I have already described the plan. In the accident ward there is an improvement; that ward is so situated that its door opens on the pathway, so that patients can be carried in without being lifted even a single step. Any one who has seen in town Hospitals the method of carrying an injured man up long and steep flights of stairs, will appreciate the value of this common-sense and ready arrangement. For the convenience of patients in bed, who are too feeble to rise and sit, for meals or for change of position, a simple and effective plan is carried out for their assistance by means of a strong white cotton-netted sheet, which looks something like a small hammock flattened out. This, when the patient is reclining, lies under the shoulders or pillow across the bed, and is a cause of no inconvenience; when required for service, it is gently spread out beneath the patient, and the ends of it on each side, to which light fastenings are attached, are brought to the posts at the foot of the bed, and secured there after the patient has been raised to the required height, and the fastenings have been proportionately tightened. The patient, on being let back, finds himself or herself reclining on the cotton netting, which is so light and so strong, and so readily adaptable to the back, that the utmost support is secured without

any fatigue or pain. In this way many of the patients take their meals, the food being placed before them on a light deal table, which rests by its feet on the edge of the bed on each side; in this way, too, they sit to carry out amusing occupations, such as sewing, knitting, or reading.

But that which pleased me most in this Hospital was the adornment of the walls. How wretched in most Hospitals is the prospect that meets the eye of the invalid! A blank, white surface, a deal table, and, side by side, other sufferers. Nothing on which the eye can rest but blankness and sorrow. The authorities at the Lynn Hospital have, for some time past, reformed a system, so prejudicial to recovery, by introducing something which can interest and create variety of scene and thought. On the walls of the wards they have suspended in neat frames, and within sight of the patients, the best pictures which their means and the generosity of the lady patrons can afford. The better class coloured plates, published in the *Illustrated London News*, have here come in most serviceably; and if the lamented and esteemed founder of the great pictorial newspaper had lived only to cheer up humanity, in its lowest depths of sorrow, by this one simple artistic effort, his life had been well spent. Flowers, also, are, I believe, not forbidden in summer-time. On entering some of the wards of this Hospital, the effect of these few and simple representations of art is most striking. The gloom of the sick-ward is expelled, and throughout a cheeriness prevails, which is as obvious on the countenances of the patients as sunshine on a landscape. I do not mean to say that all is done that art could do, nor a tithe of it; but here is an attempt, at all events, to lift up the poor sick body through the mind, that might be used in every sick ward as an important adjunct to the Pharmacopœia; for there is something in chaste art, however rude its type, which goes so deeply into the soul of the most illiterate man, that the body feels the impulse, and all for its good. The poor—I was going to say the Profession, and that would not be wrong—are deeply indebted to Mr. Charles Hawkins for his strenuous advocacy of the introduction of artistic embellishments into the sick Hospital; and in time, I doubt not, the object for which he has striven will be appreciated and carried out, as it is in Lynn. Lastly, in the Lynn Hospital, for the amusement of children, toys are granted, and for the adults there is a library, in which more than one style of books is allowed. There are histories, travels, and other works of an instructive and entertaining character.

The rules for the admission of patients is exclusive. No child is admitted under six years of age as an in-patient, except in extraordinary cases of Surgery, fractures, or where cutting for the stone or other capital operation is required; neither is any consumptive person admitted, nor any one of disordered mind, or subject to epileptic fits, or suspected of having small-pox, venereal disease, itch, or other infectious disorder. Pregnant women are also excluded; dropsical persons, cancerous cases (except when operation is required), and all who are suffering from chronic ulceration of the legs.

If it be considered that these rules of admission are too strict, admitting, as they do, the entrance of none but acute or subacute cases of disease, there is a strong recommendation of the governors, to the subscribers, which the Profession will consider as peculiarly sensible. The governors "earnestly request that each subscriber, previously to giving a recommendation, will ascertain the circumstances of the applicant; as persons have been admitted into other Hospitals who were well able to pay for the assistance they required. The charity must sustain serious injury if attempts at imposition of this sort be not promptly frustrated, and Medical gentlemen will have reason to complain of the injustice of breaking in upon their private practice and emoluments."

Diet of the Hospital.

The diet scale of the Hospital, given below, is liberal, but the proportion of boiled mutton is out of all reason. The system of weighing out the food, the folly of which I have noticed in a previous paper, holds place; puddings and slops are, moreover, in excess; and the daily quantity of bread, fourteen ounces in the "full diet," seems, by comparison with the other articles, excessive, especially when it is combined on the same day with twelve ounces of pudding. The liberality of the scale certainly admits of revision, not in reference to expense, but in regard to the mode of expenditure and the character of the food allowed. Animal food, in some quantity, should surely be on the table every day, in Hospital, for those patients who are able to take it. It is in the end also the cheapest food; it supplements other food so well, and in convalescence so greatly expedites perfect recovery. It is fair to add that Dr. Lowe thinks the scale very suitable to the patients of the Institution.

West Norfolk and Lynn Hospital Diet Scale.

	Extra Full Diet.			Full Diet.			Extra Middle Diet.	Middle Diet.	Milk Diet.	Broth Diet.
	Men.	Women.	Children.	Men.	Women.	Children.				
Breakfast	One pint of milk. Bread and butter.			One pint of milk. Bread and butter.			One pint of milk. Bread and butter.	One pint of milk. Bread and butter.	Milk 2 pts.	Milk 1 pt.
Dinner ..	Meat (cooked) 6oz. Boiled mutton. Potatoes (cooked) 6 oz. Bread. Same quantity of roast beef on Sundays.		Meat (cooked) 3 oz. Mutton.	On alternate days: Meat (cooked) 6 oz. Potatoes (cooked) 6 oz. Mutton. On alternate days: Pudding 12 oz.	On alternate days: Pudding 8 oz.	On alternate days: Meat (cooked) 3 oz. Potatoes (cooked) 6 oz. Mutton. On alternate days: Pudding 8 oz. Roast beef on Sundays. Bread.	Meat (cooked) 3 oz. Mutton. Potatoes (cooked) 6 oz. Bread. Roast beef on Sundays.	On alternate days: Meat (cooked) 3 oz. Potatoes (cooked) 6 oz. Mutton. On alternate days: Pudding 8 oz. Bread.	Rice milk 1 pt., or light pudding 8 oz.	Broth 2 pts.
Supper....	One pint of broth, gruel, or milk. Cheese 1 oz. Bread.		½ pint of broth, gruel, or milk.	One pint of broth, gruel, or milk. Bread. Cheese 1 oz.		½ pint of broth, gruel, or milk. Bread.	One pint of broth or gruel. Bread.	One pint of broth or gruel. Bread.	Bread 14 oz.	Bread 9½ oz.
Daily allowances.	Milk 1 pint. Gruel, broth, or milk 1 pint. Meat (cooked) 6 oz. Potatoes (cooked) 6 oz. Bread 14 oz. Cheese 1 oz. Butter ½ oz.		Milk 1 pint. Gruel, broth, or milk ½ pint. Meat (cooked) 3 oz. Potatoes (cooked) 6 oz. Bread 9½ oz. Butter ½ oz.	Milk 1 pint. Gruel, broth, or milk 1 pint. On alternate days: Meat (cooked) 6 oz. Potatoes (cooked) 6 oz. On alternate days: Pudding 12 oz.	On alternate days: Pudding 8 oz.	Milk 1 pint. Gruel, broth, or milk ½ pint. On alternate days: Meat (cooked) 3 oz. Potatoes (cooked) 6 oz. On alternate days: Pudding 8 oz. Bread 9½ oz. Butter ½ oz. Bread 14 oz. Cheese 1 oz. Butter ½ oz.	Milk 1 pint. Broth or gruel 1 pint. Meat (cooked) 3 oz. Potatoes (cooked) 6 oz. Bread 9½ oz. Butter ½ oz.	Milk 1 pint. Broth or gruel 1 pint. On alternate days: Meat (cooked) 3 oz. Potatoes (cooked) 6 oz. On alternate days: Pudding 8 oz. Bread 9½ oz. Butter ½ oz.		
Extras to be specially ordered.	Beer, porter, wine, brandy, other spirits, beef for beef-tea, mutton chops, fish, eggs, jelly, fruits.									

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USE OF ALCOHOLICS.

The quantity of alcohol used in the Hospital is exceedingly small. Beer and porter, which rank as extras, are allowed in the proportion of rather less than a pint per patient per day. The use of wines and spirits does not exceed a third of an ounce per patient daily.

(To be concluded.)

REVIEWS.

The Second Step in Chemistry; or, the Student's Guide to the Higher Branches of the Science. By ROBERT GALLOWAY, F.C.S., Professor of Practical Chemistry, Museum of Irish Industry, etc. London: John Churchill and Sons. 1864.

Manual of the Metalloids. By JAMES APJOHN, M.D., F.R.S., M.R.I.A., Professor of Chemistry in the University of Dublin. London: Longmans. 1864.

THE former of these two useful manuals forms one of Mr. Churchill's series; the latter has been written at the desire of two distinguished Fellows of the University of Dublin, the Messrs. Galbraith and Haughton, to form one of their series on different branches of science.

The author of the first work states in a preface that his concern has been especially with those newer views which are now being very generally adopted. As these are founded mainly on volume relations, all the branches of this subject are at the commencement explained and illustrated by exercises to be performed by the student. The history of the rise and progress of the new views is given, commencing with Dr. Clarke's and Mr. Griffin's, passing on to the unitary system of Gerhardt, Williamson's views on the constitution of bodies, Laurent's on the ammonias, and finally Gerhardt's method of classification. The chapters which follow are intended as a practical and systematic manual of organic chemistry, based on the work of the last-named writer. About three-fourths of the volume having been thus occupied, long and practical chapters are devoted to subjects daily rising in importance, such as fractional distillation; the law and method of determining the boiling point of liquids; specific and atomic heats, with kindred details which occur in the first; followed by a second containing Graham's experiments on diffusion, dialysis, and osmose; and a third on chemical analysis by spectrum observations. Two appendices, one on weights and measures; another, containing a selection of examination papers, bring the goodly volume of nearly 800 pages to a close.

Dr. Apjohn's book is of a somewhat smaller size, corresponding with the comparatively limited field open to it. Students of medicine, moreover, and of engineering, do not require the minute information as to triamines and tetrammoniums, which is properly characterised as a second step in chemistry; and it is principally for these that the task has been undertaken. An introduction of 105 pages deals with the general laws of matter and combination, giving "in as compressed a form as possible all information required by the student. In carrying out this desirable reform," says the author, "and to secure not only brevity, but precision, I have not hesitated in some few instances to call in the aid of some of the simpler forms of algebraic calculation."

A good instance of this condensed method occurs in the account of Gerhardt's unitary system spoken of above. After briefly acknowledging that chemist's merit and originality, Dr. Apjohn says, "The system of Gerhardt, as at present taught, may be supposed to rest on the three following propositions:—

"1. That the atomic volumes of all the simple substances are equal.

"2. That the same is true of the atomic volumes of the compound bodies.

"3. That though the atomic volume of a compound appears in some instances to be double that of an element, the ratio between the volumes of the smallest quantities of each which can exist in a separate state is really one of equality."

After mentioning objections to doubling the equivalents of certain simple substances, the writer concludes: "But even though this and other difficulties could be surmounted, grave doubts may be entertained of the expediency of making Gerhardt's theory the exclusive basis of instruction in chemistry. The existing method seems entitled to preference, from its comparative simplicity, and because of its resting exclusively on experimental evidence; and, for these reasons, will probably continue to be long employed by those who are occupied in chemical teaching."

Six consecutive chapters, devoted to the metalloids in succession, form about three-fifths of the work; and six short appendices, mainly on metrical points, bring it to a close.

It will be seen that these two works, though differing materially in their scope and size, are both well adapted to the purpose for which they are intended, and will in all probability be fully appreciated by students.

On Life and Death. Four Lectures Delivered at the Royal Institution of Great Britain. By WILLIAM S. SAVORY, F.R.S., etc., etc. London: Smith, Elder, and Co. 1863.

IT needs a bold man to undertake a subject so extensive and difficult as that which forms the title here given; and the recollection which it calls up of Bichât's great work does not tend to lessen the gravity of the undertaking. But Mr. Savory disarms comparison in a brief, frank preface. These lectures, not originally intended for publication, now appear at the request of some that heard them. They present an excellent digest of modern physiology, in a form well adapted for a general audience, and doubtless derived an additional charm from the delivery of a lecturer so accomplished as their author. They do not pretend to any striking originality, nor are they intended to inculcate views at variance with the received opinions of anatomists. Acknowledgment is made of the labours of other observers as incorporated in the body of the work, especially those of Von Baer and Dr. Carpenter; perhaps, moreover, we may add that there is throughout a perceptible adstipulation to the views and doctrines of the able author of "Lectures on Surgical Pathology." All this and more is very gracefully admitted by the writer, who says,—"After all, much—most of what is here set forth—cannot, part by part, be fairly placed to the account of individual minds, for it has, in the course of many years, gradually grown out of the labours of many men."

In the first lecture, types of organisation in living beings are distinguished from grades of development, and the concurrence of the two to determine special forms is established. The law of progress is shown to be from the general to the special, and to be pervaded by definite unity of plan. It concludes by explaining a familiar phrase—"Law of nature;" stating that "natural laws are not analogous to human laws. No one can for a moment imagine that the Creator is bound by any law; but in recognising the Divine plan to have been throughout perfect and complete, we understand why it is immutable. The term 'law of nature,' then, is only an expression of the uniformity observed by the philosopher in the phenomena of the universe. The law of nature is the will of God."

The second lecture deals with the essential features of life when reduced to its simplest terms; with structure and function, nutrition, the mutual relation of organs, their sympathy, well illustrated by the phenomena of the brain, and terminates by some remarks on the character of vital actions at various periods of life.

The third lecture considers the external conditions of vital action, the supply of waste, production of heat, the destination of food, and incidentally mentions a fallacy as to the effect of pure oxygen on respiration committed by sciolistic theorists both at home and abroad. The material agents give place to dynamical agents—heat, light, and electricity; regarding these—"Although the data are not as yet rigorously exact, we cannot resist the conclusion, that in plants and animals there is, within certain limits, a definite relation between the vital activity of each individual, and the amount of force which it receives from external sources." The prejudice against explaining the phenomena of life by the operation of physical forces is ably combated; and, with a confession of our comparative ignorance in this direction, this part comes to a close.

The fourth and last section opens with the consideration of death, both in its somatic and molecular forms. Bichât's views, as extended by Alison, Watson, and others, are reviewed; the comparative painlessness of the process is insisted on; the signs of death, including rigor-mortis, are explained; and with some general speculations the work ends.

Although obviously intended for a wider circle of readers than is included by our Profession, these lectures may be profitably read by all. At a time when much stress is with reason laid on the extension of sound physiological information among the laity, it is a subject of satisfaction that its diffusion should be entrusted to so thoughtful, competent, and impartial an inquirer as Mr. Savory here shows himself to be.

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PROVINCIAL CORRESPONDENCE.

EDINBURGH.

The year, guiltless as yet of snow, has come "in russet mantle clad," and the second half of the winter session (thanks to the recent thawing of the ice) has begun.

Ice has a curious effect on this city. No one has a chance against it. If you ask a man, is he going to business of any kind, he looks at you with wonder, and says—"The ice is bearing." Not only do young ladies and men skim over Duddingston Loch by day, but the passer-by all through the moonless winter night may hear the hum of skates. But more fascinating still is the canal, that eccentric aqueduct which is perched so high that you can see on each hand the surrounding country; you are above country-houses' chimneys with their curling smoke—above that train from Glasgow whizzing along—above everything, even the lingering fragment of conscience which told you on starting that, as the Frenchman said, you "had to fry some feesh." You skate, say to Linlithgow, get on to the loch there, past the old palace, through the beautiful park, where—

> "In jovial June how blithe the merry linnet's tune,
> How sweet the blackbird's lay!"

As you rest on some of the canal bridges there are few prettier sights than a string of students, with their sticks and knapsacks, coming along in Indian file, with some strong skater at their head, say John Duncan. Oh dear, how I envy their wide sweeps as they shoot by me!—how vain my attempt to follow! On my return I meet them again, and we run along easily into Edinburgh under the dim light of stars.

I have seen several allusions in your columns to Professor Syme's lecture, which seem to be very just, and to have met the approval of all here. There is no doubt that the student's mind is overloaded, or rather would be, were he to work thoroughly at all his subjects, but few students do so; they very sensibly get up a minimum of those for which they feel no elective affinities, and a maximum for those they find suited to their mental capacities. And what a privilege it is for them that this varied curriculum does exist!—for many, by the time they gain a diploma, have had to change their plans,—loss of parents, of money, of health, and even a moderate amount of knowledge, may enable one to take another tack and make his daily bread. That there is a gradually increasing deficiency in anatomical knowledge, is manifest to all teachers. The lecturers on Surgery especially notice it. But that is principally from there being huge, unwieldy classes of anatomy, and a laxity of strictness—a carelessness as to neatness and to care in dissecting and cleaning arteries and muscles, which used to be the pride of demonstrators and the emulation of students. There is plenty of time, and there are plenty of subjects. The real reason, I believe, is, that students see men thriving on a modicum of anatomy as well as those who have gathered a large store. They hear men who scarcely know one end of a bone from the other, who, if you asked them to tell a carpal bone right from left, would doubt your sanity, talk of anatomy, as if it were their constant joy. Believe me, Sir, that is one reason why students do not care now for dissecting. Mr. Syme stated that Professor Laycock gave his students a list of 800 fevers. This has been already contradicted sufficiently, and our distinguished Professor of Medicine is well able to defend himself. The list alluded to is, or may be, in everyone's hands, and a gentleman who prides himself on his accuracy might have got his statistics from a surer source than that of a student who had been given his cue. It is a pity to begin the year thus, and to make these pleasant meetings at the College of Surgeons organs of unrest. How much pleasanter was Dr. Gairdner's lecture on the "History of Surgery in Edinburgh"—of the times when these old shavers were given yearly "ane condamnit man" to dissect, "but not till efter he be deid," so that they "might knaw all the vagries of the samyn, that they may mak flebothomea in dew tyme;" and when each entrant had to pay "fyve pundis of usuall money of this realme of Scotland for the altar of St. Mungow;" after which he had to stand "ane dennar" to his examiners.

The death of Dr. Newbigging has caused universal sorrow: without pomposity he was dignified, without slandering his neighbours he solved the problem of success; no one of his brethren will forget his handsome, truthful face and kindly smile, and I trust they may try to be the unassuming Christian gentleman he was.

The plan of Professor Syme, to supersede the examinations for a degree by class examinations, seems to be gaining ground among a certain class. I hear that the Medical Faculty of the University have unanimously agreed on the expediency of such a change. Before, however, this expression of opinion can have any effect, it must have the approval of the Senatus, the University Court, and even of the Privy Council. How curious it is that this discovery of the signal uselessness of examinations was never made until the Medical Professors were paid for examining. From all I have written, you may conclude that the millennium is not here yet. Persius says, "With pepper and other productions of the south, science came to the Romans," and certainly pepper and science seem here to go together. But if we choose to have our science peppered, why shouldn't we?

GENERAL CORRESPONDENCE.

MORBUS ADDISONII.

Letter from Dr. Samuel Wilks.

[To the Editor of the Medical Times and Gazette.]

Sir,—Although I do not wish to prolong a discussion which commenced at a Medical Society, yet, as the opinion of Dr. Harley, as given in your report of the Pathological Society in to-day's Journal, in reference to Addison's disease, may improperly influence some of your readers who have not seen this remarkable malady, I trust you will allow me space for a few observations in explanation—the time of the Society not allowing me to do so in full. Dr. Harley implied that all was uncertainty respecting it, and that the advocates of Addison's views were constantly shifting their ground. This is not the fact; Dr. Harley has made a giant of clay in order to demolish it. Addison's original statement stands on as sure a basis as any received fact in pathology; the only changes which have been made in his views are of the most trivial kind, and which Addison himself admitted. These refer to the form of the discoloration, and to the character of the disease in the capsules. If the author had been content to publish his cases without any further surmises, not one of these charges could have been made; so true to life were they, and so exactly resembling in every respect those which have been described by every subsequent observer. The accurate pictures which Addison drew, would answer as well for representations of every case which has occurred since. So far from the disease or its symptoms varying, the uniformity amongst the cases is most remarkable, and greater than can be shown to exist in most diseases about which we are able to form a correct diagnosis during life. It is to be regretted that Addison did not limit his memoir to the detail of his four or five cases, for then his opponents would not have had a single weapon to throw against him.

To those who have not seen the monograph it may be stated that the author described four or five cases of persons who had died under exactly the same circumstances, that is, with a gradual prostration of strength and discoloration of skin, and in whose bodies no other disease was found but in the supra-renal bodies. As an observant and intelligent man should do, although he did not profess to see the connection, he necessarily associated the symptoms with the disease, and then endeavoured to put his conclusion to the proof, by remarking if other patients with similar symptoms presented the same morbid condition after death; he did so, and his expectation was fulfilled. Not unnaturally, with the ardour of discovery upon him, he had every body examined, in order to elucidate further the disease; and it happened that in one or two, where cancer existed, he thought that some discoloration of the skin was present. No further experience, however, has produced any similar cases, and therefore, in all probability, the surmise was wrong, and the true disease is that only which he described in his first cases. Let, therefore, this be granted and accepted as a shifting of the ground, and estimated at its real value. To my mind, it more firmly establishes the truth of Addison's discovery. Besides, it requires only a little reflection with regard to pathological conditions generally, to know that such must be the case; for if we wish to study the symptoms resulting from disease in any organ, we should select those instances where the alterations are of a primary kind. For example, if we would study hepatic or renal disease, we should select cirrhosis or morbus Brightii, and surely should

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not look for the symptoms of kidney or liver disease in those cases where the organs are sprinkled with a little tubercle or cancer. Moreover, I have yet to learn that such diseases exist, except in the imagination. I do not know of a total primary destruction of any organ by cancer, and uncomplicated by disease elsewhere. I have never heard of such a disease of the supra-renal capsules, and my pathology is much at fault if I ever do. The true Addison's disease has its analogies in other primary and slowly-progressing affections, as phthisis, cirrhosis, granular kidney, etc.

As regards the discoloration of the skin, in all of Addison's cases the pigmentation was tolerably uniform; but in the case of a gentleman in whom the author thought the disease existed, the body was covered with black patches. No post-mortem was made to establish the diagnosis, and in all subsequent cases no discoloration of the kind has occurred. Dr. Addison, therefore, believed that this was more often of a uniform character, resembling, indeed, what is seen in the skin of a native of a southern climate. Out of more than thirty cases which are authenticated, and of which I have seen the diseased organs, in four only was the discoloration unobserved during life, and in one of these only was it found quite absent when the body was examined after death. Dr. Addison had himself seen two cases where all the symptoms of the disease existed, and the capsules were found affected in the usual manner, but no discoloration existed. In these, the capsules were of a very great size, and only recently diseased; and it was owing, it was thought, to the incessant vomiting and the implication of the semi-lunar ganglion, that death took place so rapidly and before time had been allowed for the pigment deposition.

Dr. Harley wants to know how the matter now stands. It stands thus. Persons are liable to a very gradual and slowly-progressing disease of the capsules, hitherto found to be of that kind called scrofulous, consisting generally of yellow amorphous cheesy matter, with cretaceous degeneration, and with this they suffer from symptoms which are strikingly alike in all, viz., an increasing want of power, or asthenia, sickness, and discoloration of the skin, or, to be more accurate, discoloration of the skin in about 95 per cent.; this being absent if the disease be acute. To prove the correctness of the statement, I apprehend there is no other method than to observe closely patients with these symptoms, and see if after death they present the disease of the capsules described. This has been done, in not one, but in fifty cases. In spite of these facts, there are those who would add to the remarkable features of this disease the greater marvel still, that these so-called diagnoses were nothing more than guesses. Very happy guessing! Would that it could be used so successfully in other obscure diseases! In the cases I took to the Society, the one was diagnosed by myself, and the other by Dr. Hardwick. In a case preceding this, whilst more than twenty miles away from my home, on a visit to a patient, I mentioned to two Medical men—Drs. Butcher and Bowden, of Ware—that a case of supra-renal disease was then being examined at Guy's Hospital, all that I knew being that the lad had died that morning with well-marked symptoms of the disease, and a post-mortem examination was to take place. Not being a clairvoyant, I should like to know how I became aware of the fact, unless by a true scientific induction. On opening the Catalogue of Guy's Hospital Museum, besides the cases coming from within its own walls, I find specimens taken from patients in whom the correct diagnosis was made by gentlemen in all parts of the kingdom—as Drs. Ranking and Vincent, of Norwich; Mr. Valentine, of Somerset; Dr. Glover, of Newcastle; Dr. Bacon, of Norwich; Dr. Aldis; Dr. Houseley, of Warsop; Mr. Toulmin, of Hackney; Mr. Stedman, of Godalming; Mr. Harris, of Hackney; Mr. Truman, of Nottingham; and many others. I might mention that Dr. Watson and Dr. Aitken, in their works on the "Practice of Medicine," adopt Addison's conclusions. Also, within the last few weeks, cases have been reported from Dublin, Brussels, Berlin, and St. Petersburg. If Dr. Harley does not choose to examine the facts for himself, I would make him this request—to submit the histories of all the cases in which the specimens have been sent to Guy's Museum (I mention these because I know them) to a non-Medical friend—say a lawyer—and see if any other conclusion can be arrived at than the one adopted by Addison. If he can, I will give up the whole matter, and regard my intellect as clouded.

The only arguments used against Addison's views are of this kind—that the association of the symptoms and the disease of the capsules is a coincidence; that these are constantly found disconnected, and, therefore, have no relation to one another. The answer to this is, that, where the discoloration and symptoms have existed together, the disease has always been rightly diagnosed; but that discoloration of the skin alone, especially in those cases where large black patches of melasma exist, is certainly not a symptom. Addison never said it was, nor his followers. He knew melasma occurred under many various circumstances. Then, as regards the accidental discovery of the disease after death. This, it must be admitted, has happened. But in some cases it was clearly the cause of death; in others, death occurred from an acute inflammation, just as might happen in Bright's disease, where a kidney affection was not known to exist. But not half-a-dozen such cases have been recorded.

If you will allow me to add another line to this long letter, I would say a word with respect to the unbelief which Dr. Harley says exists among the most eminent men on the Continent. That this does exist amongst those who have only had a superficial knowledge of the subject, I do not doubt; but I cannot believe that any man who has weighed the evidence can do otherwise than accept its truth. My observation, gathered from the history of discovery, is this,—that at any given period of human progress, a certain amount of knowledge exists, and that then, if any new scientific statement be advanced, it will be accepted favourably, just in proportion as it agrees with preconceived ideas, or places the old notions on a clearer foundation. There are certain theoretical books and essays which are invariably received with favour by readers and reviewers, although they cannot verify the statements therein contained,—"they are beautiful, and therefore they must be true;" whilst, on the other hand, if a new fact should be discovered which seems opposed to, or is different from, our ordinary modes of thought, a scepticism is produced. This has always been the case; and although, in the present instance, I do not use the opposition as an argument in its favour, I should consider a universal and ready acceptance of Addison's doctrine as an argument against it. Allow me, in conclusion, to say, that I have written these few remarks, not to convince my friend, Dr. Harley, for his opposition is of that kind which will require, I think, two or three years for recantation, but for the purpose of placing before your readers what the real facts are, and how futile are the statements of the opponents to Addison's discovery,—a discovery, to my mind, one of the most remarkable of the present century.

I am, &c., Samuel Wilks.

St. Thomas-street, Southwark, January 30.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, January 26.

Mr. Fergusson, Vice-President, in the Chair.

A paper, by Dr. S. O. Habershon, was read, entitled

CLINICAL OBSERVATIONS ILLUSTRATING THE EFFECTS OF IMPLICATION OR THE PNEUMOGASTRIC NERVE IN ANEURISMAL TUMOURS AND MORBID GROWTHS.

After referring to the complex distribution of the pneumogastric nerve, and to the important symptoms of disease produced by the implication of its branches, the author proceeded to describe several cases of thoracic aneurism in which the branches of the recurrent laryngeal nerve, or the trunk of the pneumogastric, were involved. The first case was that of a man, aged 39, who had been engaged in laborious work at Chatham and Woolwich dockyards. Two months before death he began to suffer from hoarseness, and the laryngeal symptoms were more marked than any other. There were paroxysms of urgent dyspnœa and slight dysphagia. Five days before death hæmorrhage from rupture into the trachea commenced; and on the morning of his death the bleeding suddenly became profuse, and was quickly fatal. Dilatation of the aorta, double aneurism of the arteria innominata, and perforation into the trachea, were found. There was pressure upon the commencement of the recurrent nerve, and commencing degeneration of the muscular fibre of the laryngeal muscles on the same side. As to the physical signs, dulness

and double bruit were produced immediately over the first bone of the sternum, but there was no bruit over the aortic valves. No pain had been complained of. The value of the laryngoscope had been shown in demonstrating that no disease of the larynx existed, slight œdema of the mucous membrane only being present. The second case was that of a sailor, aged 35, who had apoplexy, with aphonia and symptoms resembling phthisis; aneurism was, however, suspected. The recurrent and the pneumogastric nerves were both compressed; the muscles of the larynx were on one side pale and wasted, and the lung on the same side was in a state of asthenic pneumonia. The thoracic duct had also apparently been compressed. In the third instance recorded, the symptoms of cardiac disease obscured those of aneurism. There had been pericarditis and endocarditis, and fibroid degeneration of the muscular fibre of the left ventricle existed. The patient was a groom, aged 45, and two months before death symptoms of catarrh and bronchitis came on; the heart's action was irregular and tumultuous; the pulse very feeble, but without bruit. Afterwards a triple sound was produced below the nipple, and with renewed bronchitis there were signs of pleuro-pneumonia of the lower lobe of the right lung. No pain and no dysphagia were complained of, but paroxysms of urgent dyspnœa, with extreme faintness; in one of these attacks he died. In addition to the degeneration of the heart, an aneurism was found at the commencement of the transverse arch; and the pneumogastric, after giving off its recurrent branch, passed directly over the sac, and the compression of this nerve had determined the pneumonic consolidation of the lower lobe of the right lung. In the fourth case, the recurrent laryngeal nerve was compressed, and had produced paroxysms of urgent dyspnœa, but the dyspnœa was in great measure due to direct pressure upon the trachea. There had been feebleness of the voice, with dysphagia. Pain was of an agonising character, but also paroxysmal, and it was apparently due to direct pressure on the nerves. The aneurism of the aorta was situated immediately beneath the subclavian, and had ultimately perforated the trachea; but rapid effusion of blood had been prevented by layers of fibrin, and it was probable that the first oozing of blood took place nine months before death. No bruit had been produced, but a ringing second sound; the heart was healthy. The author stated that pressure on the pneumogastric nerve and its branches by aneurismal tumours in the chest led, first, to paroxysmal and spasmodic contraction of the muscles of the larynx; secondly, to diminished muscular power, and to paralysis and wasting of the laryngeal muscles; and thirdly, to pulmonary congestion and consolidation;—but that gastric symptoms, such as were found in peripheral pulmonary irritation of incipient phthisis, were not observed in thoracic aneurism. The effect of changed nervous supply of the œsophagus was briefly referred to; spasmodic contraction, and possibly also ulceration, taking place without direct pressure; the author stating that spasmodic contraction from this cause aggravated the effects of the direct pressure of tumours generally. It was likewise mentioned that occasionally no dysphagia existed, because the whole of the œsophagus opposed to the tumour was pushed aside *en masse*. In conclusion, the author detailed an instance of disease affecting the supra-renal capsule, with bronzed skin; and exhibited a drawing from his dissection of a branch of the pneumogastric to the capsule. The irritability of the stomach often present in these cases was referred to this connexion. A dissection showing the larger branches of the semi-lunar ganglia, and the manner in which some of these branches were involved in the diseased capsules, was also exhibited.

Dr. John Harley read a paper on

HÆMATURIA OF THE CAPE OF GOOD HOPE.

In the beginning of October last, a gentleman, resident in the Cape, consulted the author about a slight hæmaturia which he had had for some years. After micturition a little blood, never exceeding a teaspoonful, or some dark "veins," appeared with the last half ounce of urine. The urine itself was never bloody. Sometimes the "veins" would block up the urethra, and cause obstruction for a few minutes. He had an occasional twinge of smart pain in the loins. These were all the symptoms that ever appeared in connexion with the urinary apparatus. He said great numbers of people of both sexes were affected in precisely the same way in certain parts of the Cape. While awaiting a sample of his urine, Dr. Harley made inquiries amongst his Cape friends and acquaintances; and, as the result corroborated his patient's statements, he was now satisfied of the existence of endemic hæmaturia in Nitenhage and Port Elizabeth, and it remained for him to ascertain the cause. In the various samples of urine sent to him by his patient, he invariably detected the eggs of an entozoon; and in one specimen he had the good fortune to discover the perfect embryo after its escape from the eggshell, under the form of a minute, ciliated animalcula. From its anatomical characters and developmental changes he was led to refer the parasite to the *Trematode* class of worms, and to the family *Distomum*. Of the five species of this genus which inhabit man, it had no relation with three. *Distomum heterophyes* presented some points of resemblance, viz., in the size and conformation of the alimentary canal, if he (Dr. Harley) might be allowed to compare it with an organ he met with in one sample of his own, and which he supposed to be the intestinal canal of the adult parasite. But the animal which it seemed to most nearly resemble, in the outward form of the eggs as well as in the symptoms of the disease it produces, was the *Distomum hæmatobium*. This parasite, according to Bilharz and Griesinger, was very common in Egypt, and inhabited all parts of the urinary apparatus. But since the parts he had described differed in several respects from the corresponding parts of the hæmatobium, and since, from want of recorded information respecting the corresponding parts of *D. heterophyes*, he could not compare them with these, he was obliged to comprehend them under a new species, which he would call *D. capense*. Having finished his observations of this case, he was strongly persuaded that the hæmaturia of the Cape was due to the parasite, the early stage of whose development he had been able to observe; but still, as its presence in a single case might be nothing more than a coincidence, he felt that more extended observations were needed to prove that this was the constant cause of the local disease in question. With singular good fortune he had the pleasure of an introduction to Mr. Dunstroville, Surgeon to the Port Elizabeth Infirmary, and who, having practised for twenty-seven years in the Cape of Good Hope—which was one of the two places in which he (Dr. Harley) found the hæmaturia to be endemic, — was quite familiar with the disease, the cause of which, however, from want of leisure and means of observation, had never been ascertained. Mr. Dunstroville's two sons, in common with most other young men, suffered from the disease, but considered themselves to be now free from it. At the author's request, Mr. Dunstroville kindly supplied him with samples of their urine, and he (Dr. Harley) was at once enabled to demonstrate to Mr. Dunstroville the existence of the characteristic eggs of the parasite in question in the secretion from both. Having thus demonstrated the existence of the same parasite in three individuals suffering or having suffered from the hæmaturia endemic in some parts of the Cape, Dr. Harley concluded that the animal was the constant cause of the disease.

Dr. Symes Thompson observed, that the disease described by Dr. Harley as endemic at the Cape must be either rare in its occurrence or very limited in its distribution. He had received communications from three Medical men who had practised for several years in South Africa and had not met with idiopathic hæmaturia either at Port Elizabeth or in the neighbourhood of Uitenage. Dr. Johnston (Surgeon to the 85th L. I.) had seen many cases of hæmaturia in Natal, occurring in children between the ages of 6 and 15, more commonly in boys than girls, which he had regarded as dependent on congestion of the genito-urinary mucous membrane, arising from ascarides, tape-worm, or depraved secretions. He had found these cases very amenable to treatment directed to the removal of the conditions referred to, with the subsequent administration of turpentine, matico, or the sesquichloride of iron. Dr. Thompson added to this testimony that of a non-Medical observer, the Bishop of Natal, whose sympathies are, perhaps, as much scientific as clerical, who had not, in his intercourse with Medical men in the colony, heard the disease mentioned as endemic in any part of his diocese. With regard to the question, whether the fluke described was the same as that occurring in Egypt, though zoologically almost identical, the *Distoma capense* (so called by Dr. Harley) seemed far less hurtful in its effects on the human constitution than the *Distoma hæmatobium*. The first-named entozoon was, perhaps, a variety of the same species. The speaker suggested that the principal Medical officer of the Cape be requested to investigate the whole subject, and draw up a report, to be presented to the Royal Medical and Chirurgical Society at a future meeting.

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Dr. Cobbold remarked that no person who had previously

familiarised himself with the appearances presented by the eggs of the various distomes could doubt for a moment that Dr. John Harley's illustrations represented the ova of the so-called *Distoma hæmatobium*. In short, the symptoms, pathological products, eggs, and embryos described by Dr. Harley, all tended to show that this hæmaturia of the Cape was identical with the well-known Egyptian malady. Dr. Harley's discovery was, however, a most important one in relation to the geographical distribution and prevalence of entozootic diseases; for the author had now demonstrated, in a most satisfactory and able manner, that the helminthiasis in question was not confined to Egypt, as had hitherto been supposed, but was more or less prevalent in Southern Africa and in the Mauritius. Speaking zoologically, this parasite was not a true distome, as it represented the type of a distinct genus, to which Diesing, of Vienna, gave the name of *Gynæcophorus*; Weinland, of Frankfort, had called *Schistosoma*; Moquin-Tandon had denominated *Thecosoma*; and himself had previously entitled *Bilharzia*, after the name of the original discoverer, Dr. Bilharz, of Cairo. He (Dr. Cobbold) had discovered this so-called *Distoma hæmatobium* in the portal blood of an African monkey (*Cercopithecus fuliginosus*) six months before Diesing had communicated his paper to the Vienna Academy, and, therefore, he hoped Dr. Harley (in concert with Weinland and others) would retain the generic name *Bilharzia*, which had the priority. At all events, this was not a new species of fluke, and, therefore, the name *Distoma capense* could not stand. But Dr. Harley's discovery was none the less important on this account. It was quite clear to him (Dr. Cobbold) that our fellow men at the Cape, in the Mauritius, on the banks of the Nile—and also, if you please, our friends, the monkeys—obtained this parasite by swallowing the "intermediate bearers" of the Bilharzia. These "bearers" or "hosts" were small mollusks or aquatic animals, inhabiting the African rivers. They contained the higher larval states of this parasite, the larvæ being introduced into the human body by drinking the African waters unfiltered.

Dr. Dunstroville said that he had given Dr. Harley all the information he possessed on the subject. In reference to what Dr. Symes Thompson had said, he stated that the disease never attacked adults. There was no doubt that the water had to do with the disease, but how, it was difficult to explain. He (Dr. Dunstroville) intended, by the help of his friends, fully to investigate the disease. He remarked that stone was uncommon, and had only seen two cases.

Dr. Leared said, in reference to the observations of Dr. Cobbold on the possibility of preventing the occurrence of parasites in the human body, that his proposal for the prevention of the fatal cystic disease of Iceland, by treating all the dogs in the island simultaneously for worms, had been very favourably received. The paper had been translated into Icelandic, and published in an Icelandic newspaper. Dr. Leared had also communicated with the late Baron Eschricht, of Copenhagen; the result was, that Dr. Krabbe had been sent to Iceland last summer for the purpose of ascertaining whether the sheep-dogs of the country are really infested with the tænia echinococcus, the mature form of the cystic worm which infests the bodies of men. With this view one hundred dogs had been killed, and their intestines examined. The worm was found in about one-fourth of the number. What further steps the Danish Government intended taking Dr. Leared was unable to say, but he felt confidence in the efficacy of the plan he had proposed.*

Dr. Harley said, in reply to several points alluded to by those who had taken part in the discussion, that since there could be no doubt the parasite in question belonged to the genus *Distomum* or *Gynæcophorus*, the determination of the exact species was a matter of secondary importance. He had referred it to a new species, because, after careful comparison with Griesinger's figures and description, and Leuchart's review of them in his recently published work, he could hardly refer the ciliated embryo he had described to *Gynæcophorus hæmatobium*. On the other hand, the resemblances were so close and so many that it was probable they were identical; but from a bare comparison with the figures, he could not justly infer that they were actually so. He called attention to the fact that, although the symptoms of the hæmaturia disappeared after a time, the parasite still remained in the system as actively generating its kind as ever. Stone, it had been observed, was not at all of common occurrence in the locality in which the hæmaturia prevailed, but he would particularly draw attention to the fact, that gravel was very prevalent. He had found that a highly saline condition of the urine accompanied the discharge of ova, and that the fine crystalline deposits very soon incrusted the ova; and he had been particularly careful to satisfy himself that ova formed the nuclei of several renal calculi that had been submitted to him for examination by one of the patients suffering from the disease.

* This will be found in full detail in the *Medical Times and Gazette*, September 12, 1863.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary Examinations for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 28th inst.:—

Frederic Charles Griffith Griffin, Weymouth; Edward William Bennett Garlike, Tulse-hill; James Edmund Anthonisz, L.S.A. Ceylon; Charles John Bennett, Buxton, Derbyshire, and Frederick King Green, Stoke Newington, students of St. Bartholomew's Hospital; Edwin Bold Pearson, Yeavely, near Ashbourne, Derbyshire; Alfred John Cockerton, Islington; George White, Dalston, and Caleb Law, Australia, of the London Hospital; John Petch Hewley, Ripon, Yorkshire; William Cecil Penn, Edwardes-square, Kensington, and Joseph Langhorn, Savile-row, of St. George's Hospital; William Grafton Curgenven, M.D. St. Andrews, Plymouth, and Frederick Samuel Hope, Kirby Fleetham, Yorkshire, of the Middlesex Hospital; Frederick Philpot, Lic. Fac. Phys. and Surg. Glasgow, Chelsea, of University College; Henry Plater Long Barham, Canterbury, of the Westminster Hospital; George Brigg Peirson, Leeds: William McConnell, Lisburn, Ireland; William Skinner, Sheffield, and Hermann Johnston Jones, M.D. Heidelberg, Upper Clapton.

At the same meeting of the Court, Mr. Josiah Frederick Kynsey, L.R.C.P. Dub., passed his examination for Naval Surgeon; this gentleman had previously been admitted a Member of the College, his Diploma bearing date July 19, 1859.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, January 28, 1864:—

James More, Rothwell, Northamptonshire; Richard Orlando Arnold, Charing-cross Hospital; Richard William Davies, Colnbrook, Bucks; Thomas Langston, Hulme, Manchester; John Quick Costin, Kimbolton, Hunts; Peter Charles Duncan, 46, Great Marlborough-street.

The following gentleman, also on the same day, passed his First Examination:—

David Martin Williams, Charing-cross.

The following gentlemen passed their Preliminary Examination in Arts, and received Certificates of Proficiency in General Education on January 29 and 30, 1864:—

E. G. Archer, Feltwell, near Brandon; R. Atkinson, Coniston, Waterhead; C. Bennett, Bury, Lancashire; W. J. Bennett, Dorchester; F. M. C. Beechey, Norfolk-square; G. Bland, Stourbridge; J. H. Castle, Euston-square; Clifford Crew, Ross-place, Guernsey; D. S. Costerton, Lucas-place, Commercial-road; R. H. Coombs, Rydon-crescent, Islington; F. P. Davies, Birmingham; F. J. Glencross, Devonport; S. Griesbach, Leeds; C. V. Helsdon, Frances-street, Torrington-square; J. A. Lea, Congleton; G. J. Moxon, Brigg, Lincolnshire; S. Morrison, Westbourne-park-terrace; J. Massingham, Green-street, Bethnal-green; H. Norton, Westbourne-grove West; E. M. Owens, Sutton, Surrey; G. Payne, Wallingford, Berks; W. Powell, Cheltenham; O. R. Prankerd, Langport, Somerset; J. J. Swindell, Whetstone; A. M. Sculthorpe, Bedry, Worcestershire; W. R. Trezise, Penzance.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Bowen, Essex, M.D. St. And., has been elected Honorary Surgeon to the Birkenhead Borough Hospital.

Buckle, Fleetwood, M.D., L.R.C.P. Lond., has been appointed Assistant House-Surgeon to the Kent and Canterbury Hospital.

Cock, Frederick, M.D. Edin., has been elected Consulting Physician to the Farringdon General Dispensary.

Evans, Thomas M., M.R.C.S. Eng., has been elected Resident Hon. Surgeon to the General Infirmary, Hull.

Galton, John H., M.D., has been elected Resident Medical Officer to the Public Dispensary, Carey-street, Lincoln's-inn.

Hardesty, J. Jeffrey, L.R.C.P. and S. Edin., has been appointed Medical Officer and Public Vaccinator for the Parish of Yester, Haddingtonshire.

Head, Edward, M.B. Lond., has been elected Hon. Physician-Accoucheur to the St. Pancras and Northern Dispensary.

Jacob, David B., M.D. Q.U.I., has been appointed Visiting Physician to the Maryborough District Lunatic Asylum.

Jacob, Edward L., M.R.C.S. Eng., has been re-elected Hon. Surgeon to the Birkenhead Borough Hospital.

Jacob, Henry L., M.R.C.S. Eng., has been elected Dental Surgeon to the Birkenhead Borough Hospital.

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LAMBERT, JAMES, M.D. Glasg., has been elected Hon. Surgeon to the Birkenhead Borough Hospital.

SCULLY, THOMAS, Jun., M.D., has been appointed Assistant-Physician to the Clonmel Union Infirmary and Fever Hospital.

STEVENSON, JOHN F., M.D. Edin., has been elected Hon. Physician to the Birkenhead Borough Hospital.

WOOD, E., has been appointed Senior Dispenser to the Westminster Hospital.

DEATHS.

ANNAN, ROBERT, L.R.C.S. Edin., at Kinross, Scotland, on January 22.

CLIFFORD, HERBERT W., M.R.C.S. Eng., at Tivoli-villa, Cheltenham, on January 28, aged 28.

COWCHER, EDWARD, M.R.C.S. Eng., at Abingdon, Berks, on January 31, aged 77.

CRAIG, WILLIAM, Surgeon R.N., at Seymour-street, Holt-hill, Birkenhead, on January 18, aged 72.

ESTE, MICHAEL L., M.D., late of 1st Life Guards, at 207, Marylebone-road, on January 26, aged 85.

FAUSSETT, RICHARD, M.D. Edin., at Ballina, Co. Mayo, on January 17, aged 86.

HARVEY, EDWARD R., M.D. Oxon., of 34, Clarges-street, Piccadilly, W., at San Remo, North Italy, on January 24, aged 32.

NICOLL, WILLIAM, Surgeon, at Caistor, Lincolnshire, on January 31, aged 60, formerly of Hendon.

OSBORNE, GEORGE M., M.D. Glasg., at Nethergate, Dundee, on January 6.

WICKHAM, WILLIAM JOHN, F.R.C.S. Eng., at Winchester, on January 19.

SCHOLARSHIPS IN NATURAL SCIENCE AT CAMBRIDGE.—Two scholarships, each £40 per annum, tenable for three years, are announced to be given for Natural Science at Sidney Sussex College in October next. The subjects of examination: Electricity, Chemistry, Geology, Anatomy. They are open to all the world. The successful candidates will be expected to enter at the College. Further information may be obtained from the Rev. J. C. Ellis, tutor of the College.

ROYAL INSTITUTION OF GREAT BRITAIN.—General Monthly Meeting, February 1, 1864; William Pole, Esq., M.A., F.R.S., Treasurer and Vice-President, in the Chair.—The Hon. Slingsby Bethell, Robert George Clarke, Esq., the Lord Otho Fitz-Gerald, Jackson Hunt, Esq., William Senhouse Kirkes, M.D., F.R.C.P., George Cargill Leighton, Esq., John Peter, Esq., David S. Price, Esq., Ph.D., F.C.S., William F. Scholfield, Esq., and William Barrington Tristram, Esq., were elected Members of the Royal Institution.

DEATH OF PROFESSOR SCHÖNLEIN.—This celebrated clinical teacher, whose great skill in diagnosis was far-famed, died on January 23. He was successively Professor at Würtzburg, Zurich, and Berlin, but lived for the last few years at Bamberg, in Bavaria, his native place. He died in the 70th year of his age, in consequence of stenosis of the trachea.

THE following notice appears in the *London Gazette* of January 26, 1864:—"Notice is hereby given, that the British Pharmacopœia has been published, under the direction of the General Council of Medical Education and Registration of the United Kingdom, and that the same has been printed by Messrs. Spottiswoode and Company, of New-street-square, in the City of London, Printers, under the authority of the said Council.—Dated the 25th day of January, 1864.—FRANCIS HAWKINS, Registrar of the General Council."

MATERNITY CHARITY AT CONSTANTINOPLE.—By the last number of the *Levant Review* we find that there has been established a British Maternity Society at Constantinople for the relief of poor women of all nations and creeds, and for the treatment of the diseases of women and children. Dr. Foote is the Physician-Accoucheur, and the other officials are composed of English and Greeks. The society professes to supply qualified midwives and nurses.

WE are glad to learn, from the annual report of the New England Hospital for Women and Children, for the year ending November 10, 1863, that Doctress Lucy E. Sewall, who visited London and Paris last winter, and whose great intelligence and quiet, ladylike demeanour gained her golden opinions in the Medical circles of both capitals, is giving the Institution the benefit of her services as Resident Physician, and Dr. John Ware, Dr. Horatio R. Storer, and Dr. Samuel Cabot are Consulting Physicians and Acting Surgeons; so that the patients have the benefit of masculine aid in Surgical cases. We are surprised to read—"The Committee need not remind any one familiar with the damp cellars, the wretched attics, the untidy and ill-ventilated apartments, in which the poor dwell, in sickness as in health, of the importance of establishing a Hospital, where women and children can have quiet and tender care." We hoped that evils such as these did not infest a land unblighted by an hereditary aristocracy, and laws of primogeniture; at any rate we hope that the good Bostonians will not forget that a healthy home is the best gift to the poor.

PROFESSIONAL CHANGES IN DUBLIN.—The unexpected deaths of Mr. Smyly and Dr. Jonathan Osborne have led to many changes and some speculation in Dublin. The most important, however, of the appointments which have become vacant will be filled up, we believe, without any very serious contest. The election for a Vice-President of the College of Surgeons, *vice* Mr. Smyly, has been advertised to take place on next Thursday, and Dr. Jacob, the Professor of Anatomy and Physiology in the College, is, we believe, likely to succeed to the office. Then the Surgeoncy to the Meath Hospital is, we understand, on the best authority, to be filled up by the election of the son of the senior Physician, the young gentleman being at present studying on the Continent. By the death of Mr. Smyly, Dr. George H. Porter, one of the Examiners in the College of Surgeons, becomes Senior Surgeon at the Hospital, and thereupon has resigned his office to the South City Dispensary, and a spirited contest is likely to ensue. The principal candidates, out of thirty-five as yet in the field, as far as we know, are, Dr. Coulton, for some years Apothecary to the Dispensary; Dr. C. F. Moore, late Senior Surgeon to the Middleton Hospital, near Tynan; Dr. Grimshaw, the son of the well-known dental Surgeon; and Dr. Shortt, a young gentleman of about five years' standing in the Profession. By Dr. Osborne's demise the Professorship of Materia Medica in Trinity College becomes vacant, and we understand that Dr. Aquilla Smith, the Vice-President of the College of Physicians, and its representative on the Medical Council, will in all probability be appointed. We shall probably in our next be able to give more certain information.—*Dublin Medical Press.*

DEATH FROM HYDROPHOBIA.—On January 29 a man named Jones died in Alma-street, New North-road, from the effects of a bite of a mad dog, inflicted in November last. The unfortunate man's hand was much lacerated, but, being immediately dressed by a Surgeon, healed rapidly, although many weeks elapsed before the cure appeared complete. On the 21st of January the wound was so much better that Jones went to work; but on the 26th he felt very unwell and went home. On Thursday he was worse, and the symptoms of hydrophobia became fully developed. In the evening he appeared to be sinking under the disease, and he died a little after two o'clock the following morning.

THE CASE OF SURGEON-GENERAL HAMMOND.—The following order has been issued from the War Department of Washington: "War Department, Adjutant-General's Office, Washington, D.C., January 16, 1864.—Special Order, No. 24.—Extract 19. By direction of the President, a General Court-martial is hereby appointed to meet in this city at 12 o'clock m. on the 19th day of January, 1864, or as soon thereafter as practicable, for the trial of Brig.-Gen. W. A. Hammond, Surgeon-General U.S. Army, and such other prisoners as may be brought before it. Detail for the Court—Major-Gen. R. J. Oglesbey, U.S. Vols.; Brig.-Gen. W. S. Harney, U.S. Army; Brig.-Gen. W. S. Ketchum, U.S. Vols.; Brig.-Gen. G. S. Green, U.S. Vols.; Brevet Brig-Gen. W. W. Morris, Colonel 2d U.S. Artillery; Brig.-Gen. A. P. Howe, U.S. Vols.; Brig.-Gen. J. P. Slough, U.S. Vols.; Brig.-Gen. H. E. Paine, U.S. Vols.; Brig.-Gen. J. C. Starkweather, U.S. Vols.; Major John A. Bingham, Judge-Advocate of the Court. No other officers than those named can be assembled without manifest injury to the service. By order of the Secretary of War, E. D. Townsend, Asst. Adjt.-Gen." The charges and specifications against Surg.-Gen. Hammond are substantially as follows:—"Charge 1st.—Disorder and neglect to the prejudice of good order and military discipline. Specification.—Wrongfully contracting for and ordering the Acting Purveyor in Baltimore to receive blankets of Wm. A. Stevens, of New York; prohibiting the said Purveyor from purchasing in Baltimore, with intent to favour private individuals; ordering Medical Purveyor at Philadelphia to buy of Wm. A. Stevens, of New York, blankets, knowing that the blankets were of inferior quality, and that said Purveyor had refused to buy the same of Stevens; and also intending to aid said Stevens in defrauding the Government. Aiding John Wyth and Brother to defraud the Government, by ordering the Medical Purveyor of Philadelphia to purchase goods of said firm to the amount of 173,000 dollars, knowing that the goods which they had previously supplied were inferior in quality, deficient in

quantity, and exorbitant in price. Ordering of Wyth and Brother 40,000 cans of extract of beef, to be sent to Cincinnati, St. Louis, Cairo, New York, and Baltimore, which beef was unfit for Hospital use. Ordering the Medical Inspector to report direct to the Surgeon-General, in disregard of his duty, of the interests of the public service, and of the requirements of the Act to reorganise and increase the efficiency of the Medical department of the Army. Charge 2nd—Conduct unbecoming an officer and a gentleman. Specification.—Writing a letter to Dr. Cooper, and stating, among other reasons, that he, Dr. Cooper, had been removed as Medical Purveyor because Halleck requested as a particular favour that Murry might be ordered to Philadelphia, which declaration was false." Surg.-Gen. Hammond is confident of his ability to disprove the above charges.

ROYAL VISIT TO THE NETLEY HOSPITAL.—It will be remembered that one of the first visits paid by her Majesty after her bereavement was to the large military Hospital at Netley, which was opened for invalids last spring. She has again shown her care for the army and for this Hospital, in which the late Prince Consort took a warm interest, by paying it a second visit. She steamed up from Osborne on Thursday, and landed at the hospital about 12 o'clock. Prince Leopold accompanied her, and she was attended by the Marchioness of Ely, Countess Blucher, the Hon. Mrs. Bruce, Sir Charles Phipps, Sir T. M. Biddulph, Colonel Ponsonby, and Dr. Holzmann, the tutor to Prince Leopold. It was happily a splendidly bright day, with a fresh breeze from the north-west. Every one was delighted to observe that the Queen looked decidedly in better health than last May, although her face still gives evidence of her severe trial. She proved at once that she had not forgotten any of the incidents of her former visit, by desiring to see, first, the women's quarters, with which she was not pleased on that occasion. She found the rooms looking much more comfortable; and she subsequently inspected some rows of cottages which are now being built in the rear of the Hospital for the special accommodation of the wives and children of the sick men under treatment in the Hospital. She was satisfied with these arrangements. She then visited the wards—a less laborious task than last year, as there are very few patients in the Hospital, the invalids from the home stations having now ceased to come, and the ships with the tropical invalids not arriving till a month or two later. She said a few kind words to the men in bed, and then made particular inquiries of Dr. Anderson, the Inspector-General, as to the health of the men to whom she had spoken last year. That officer was no little surprised to find that the Queen had a distinct recollection of several cases, although her notice of them must have been almost momentary. She also entered the dining-hall, where the men who are able to leave their beds were at dinner, and carefully inspected the arrangements there. She then left the Hospital, and went to the Medical officers' mess-room—a fine large room, which has just been completed, and in which are placed her own portrait and that of the Prince Consort, presented by herself. She expressed her approval of everything, and desired that she might be informed when the invalids from the foreign stations would arrive; so that it is hoped Netley will be honoured by another visit. She inquired particularly whether there had been any effluvia from the mud during the summer, and when told there had been no annoyance of the kind, said she had never anticipated that there would be. She also made particular inquiries about the ventilation of the Hospital. During her visit she was attended by the entire military and Medical staff, including Colonel Wilbraham, C.B., the Commandant; Dr. Anderson, Inspector-General; Deputy-Inspectors Longmore and Maclean, Major Rawlings, the Professors of the Army Medical School, Mr. Tucker, the Rev. Mr. Crozier, and Staff-Surgeons Moorhead, Fyffe, Smith, Davidson, Dr. Minter, of the Royal Yacht, etc.

CASE OF TRICHINA-MIGRATION.—Professor Langenbeck related to the Berlin Medical Society the case of a man in whom, a short time since, he had extirpated an epithelial cancer, situated in the *trigonum cervicale*. During the operation, the *platisma myoides* exhibited a singular appearance, which, on closer inspection, was found to arise from the presence in the muscle of innumerable dead trichinæ, contained in calcified capsules. On inquiry, the following facts were elicited:—In the year 1845 there was a church visitation, in which eight persons took part, and, of these, seven afterwards took part in a breakfast, consisting of ham, sausages, cheese, roast veal, and white wine. In the course of three or four days the whole of the seven persons were seized with diarrhœa, pains in the neck, and œdema of the face and extremities. Of the seven, four died, and the three who survived, among whom was the man operated upon eighteen years afterwards, remained ill for long afterwards. The suspicion arose that poisoning, through the agency of the white wine, had taken place, and an investigation was made, but without any result. The innkeeper, however, at whose house the breakfast was given, being still under suspicion, was obliged to give up his business and emigrate. Dr. Langenbeck pointed out the importance of this case in its forensic aspect.—*Deutsche Klinik*, 1863, No. 24. [It becomes an important subject of inquiry, whether some of our own cases of death from suspected, but unproved, poisoning may not be due to trichina disease, now proved to be so prevalent in Germany.]

LADIES' DRESS.—A writer in the *New York Tribune*, speaking of some of the hidden accessory outline-generating machinery of ladies' dresses, says they were not so necessary in the days of our grandmothers. In those days, when most of the wearers were no strangers to a horse's back, and the broom or bread-tray, those cunningly-devised little springy circlets, that now give such an exquisite and Venus-like curve to the *tournure*, as it sweeps downward, and falls into the grand and loop-like folds of the skirt, were entirely unknown. Truth to speak, dear ladies, the smaller circles were quite unnecessary; for women in those primitive days had a fairer chance for life and beauty. Muscle and a superb outline were not considered vulgar; nor did she of the acuminated elbows, and anatomised bust and hips, have a coadjutor in the crotchet-needle and the vinegar-bottle, in her malicious ridicule of a young woman whom nature had formed as woman ought to be formed, with the vital organs, breasts and pelvis, adapted to the grand end and object of her creation—the crowning glory of her sex—a family of healthy children. We consider the modern hooped skirt one of the most admirably-artistic and health-giving devices of our time. It is conceded by all correct observers, that the muscles of the thorax, and its appendages, the arms and abdomen, are not used more than one-fourth as much by our modern women as they are compelled to use those of the legs. Nearly all the movements which our unfortunate young people are permitted to perform, by the inexorable fiat of Japonicadom, are what may be called passive; her hands must be reverently and lovingly folded across her chest, in order that their whiteness may not suffer by permitting the least motion; the lungs, of course, must be kept quiet, not only because she is not allowed to walk fast enough to require much air, but because the position of the arms and the weight of the fore-arm and hand, resting upon the lower ribs, will not allow their elevation so that the air can enter the lower part of the lungs at all; at best, but a sixth part of those life-giving organs are used, and only their upper part fully inflated. Now, if the hooped skirt be hooked to the jacket, in four places at least, and not left to rest upon the hips, the reader will perceive that the backbone, and all the muscles which enclose and steady both the great cavities of the body, and keep them elegantly erect upon the hips, must carry both the hoops and the skirt; then, these may be made both light and elegant, or heavy and grand, as the seasons may require; while drawers of material adapted to our severe winters may be so artistically adjusted, and supported by suspenders, as completely to protect and clothe the limbs without the necessity of the skirts so girding the body by drawn cords, to keep them and the drawers in place, as not only seriously to cripple all the viscera, but to interrupt the healthful action of the muscles of the abdomen, and, worse than this, to compress all the veins that carry back the blood from the lower limbs to the heart for purification.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Railway Surgeons.—We fully believe every word in Mr. Kendall's letter, published last week; but his letter leaves our statement untouched. He was not called in till after the railway company had been asked for *additional* compensation, and had nothing to do with the original compromise. But he does not deny that a Surgeon who acted for the company, and was paid by them, did attend the girl, and did take, on the part of the directors, a receipt in full for all damage both to *clothes* and person. We attack wrong practice only, and do not wish to annoy persons; but because we give no names, we do not wish the wrong horse to be saddled.

Vindex must send his name.

Mr. Salt's New Truss.—Mr. Salt, of Birmingham, has devised a truss for inguinal hernia, which was exhibited at a recent meeting of the Medico-Chirurgical Society. It is light, easily concealed, and thoroughly efficient. The parts press inwards as well as backwards, and, by a very ingenious arrangement, permit of movements the most extensive and various without displacement, and without impairing the greatest nicety of support. There are several principles in the truss which are quite new, but which, we believe, are based on strictly anatomical and physiological data.

Mr. C. F. Buckle, of No. 77, Gray's Inn-road, is a scientific chemist who devotes his time to the preparation of culinary and dietetic substances, as luxuries for the healthy, and as comforts or restoratives for the sick. One of his latest preparations is a solid *paste* of apple and isinglass, which we pronounce excellent. It is evidently made of genuine fruit, and not of factitious essences; and, if we may borrow the Johnsonian antithesis, we pronounce it to be acid without acrimony, and sweet without sickliness. It will allay the cough which awakens the hectic, and the thirst which torments the feverish; and does that, by means of a grateful aliment, which is often attempted in vain by the most nauseous medicaments.

We have received from MM. Armand et Fils, 75, Milton-street, E.C., a specimen of a substance called "Dentine," which is not tooth structure, as its name would lead the anatomist to believe, but a kind of perfumed soap to be used in cleaning the teeth. It has a less disagreeable taste than most soaps have.

Prescott, the historian, who died at the age of 63, lived a life of extreme regularity. He met with an accident to the eye early in life, which compelled him to a minute observation of every single circumstance that should affect the health. The great object of his life was to save health and eyesight. It may be worth knowing what his habit was regarding wine:

"The most embarrassing question, as to diet, regarded the use of wine, which, if at first it sometimes seemed to be followed by bad consequences, was yet, on the whole, found useful, and was prescribed to him. To make everything certain, and settle the precise point to which he should go, he instituted a series of experiments; and between March, 1818, and November, 1820—a period of two years and nine months—he recorded the exact quantity of wine that he took every day, except the few days when he entirely abstained. It was sherry or Madeira. In the great majority of cases—four-fifths I should think—it ranged from one to two glasses, but went up sometimes to four or five, and even to six. He settled at last upon two or two and a-half as the quantity best suited to his case, and persevered in this as his daily habit until the last year of his life, during which a peculiar regimen was imposed upon him from the peculiar circumstances of his health. In all this I wish it to be understood that he was rigorous with himself—much more so than persons thought who saw him only when he was dining with friends, and when, but equally upon system and principle, he was much more free. He generally smoked a weak cigar after dinner."

Maddox's Registered Invalid Bath is especially constructed for washing invalids in bed, is adapted for the use of ladies after accouchement, and is valuable after Surgical operations for fomentations, etc., and can be applied to any portion of the body where Surgical dressing is required, such as hæmorrhoids or prolapsus, etc. The wedged-shaped end is inserted under the body, from the front, without exertion or fatigue to the patient, and allows the back to rest on a soft cushion attached to the bath; it is so constructed that the water cannot possibly spill, thereby rendering it a great comfort to persons where bathing is essential, and removal from the bed would be attended with danger; also to those afflicted with paralysis, spinal affections, or debility. It is light and portable, being only 20 inches in length, 12 in width, 4½ deep, graduated to 1½ inches, and is evidently well adapted for the purpose for which it is constructed.

Small-pox at Washington.—The New York correspondent of the *Times* (January 29), describing the condition of the fugitive and freed negroes who have thronged into Washington, writes:—

"There is no employment for a tithe of them in Washington, and they are huddled together like vermin in camps and Hospitals beyond the boundaries of the city,—men, women, and children indiscriminately, where they are fed at the expense of the Government. Small-pox has broken out among them, and in so virulent a form that they die off at the rate of hundreds in a day. It is no uncommon thing to see the poor creatures lying in the snow in the public streets in the last agonies of death, and still more common to see them wandering about with the unhealed and still purulent marks of the disease visible all over their hands and faces. So prevalent is the disease, that the life of the President himself was nearly sacrificed a month ago; and within the last week one member of the Senate and one member of the House of Representatives have fallen victims to it. In consequence of the dread of contagion, the New Year's reception at the White House was more than usually scanty, such persons as were compelled to pay their respects to the President hurrying through the rooms, and out into the open air, as fast as possible, and without even exchanging the compliments customary on the occasion. Some timid persons sacrificed their courtesy to their fear, and shook hands with Mr. Lincoln without taking off their gloves; while others, instead of the usually boisterous salutation of American good-will, were content with holding out the tip of the forefinger for a hurried touch, and an equally hurried 'Happy new year to you, Mr. President!' Nobody will go to Washington who can stop away, and those whom business or duty calls within its infected precincts take care to be vaccinated before they go. It is calculated that there are to-day at least 10,000 cases of small-pox in the city and neighbourhood, all among or derived from the negroes, and great fears are entertained that the disease will spread to Baltimore, Philadelphia, and New York. The Government knows not what to do. The emancipation proclamation has brought the black swarm to Washington, and Mr. Lincoln cannot be guilty of the inhumanity of refusing them admittance, and food, if they cannot find work, and has not yet been able to devise the means for maintaining them in idleness, comfort, cleanliness, and health in their city of refuge."

The Army Medical Service.—The following letter appears in the *Calcutta Englishman* of December 10. The editor of that journal, in reference to the death of the Assistant-Surgeon of the 101st regiment at the Umbeyla Pass, asserts that—

"In several of our campaigns the loss of Medical officers has been greater in proportion to their number than that of their combatant brethren. In the army of Delhi it was so, if we count the five Medical officers who died soon after the city was taken; the strain upon their exertions was removed, and their work was done. This fact of Medical officers, whose energies have been strained in severe campaigns, sinking soon after the termination of hostilities, is well known to those experienced in war and its results; but should Great Britain be engaged in a serious war just now, the probability of these extensive casualties amongst the Medical officers is much diminished, seeing that, as the Profession is at present treated in the army, Medical men refuse to 'come and be killed.'

"TO THE EDITOR OF THE ENGLISHMAN.

"Sir,—I regret to observe the name of an Assistant-Surgeon of the 101st regiment included in the list of gallant men who have fallen on the snows of the Umbeyla Pass. Another Medical officer is added to the number who have shed their hearts' blood, not actually fighting the battles of their country, but engaged in the more difficult task of performing duties requiring the highest amount of nerve and self-possession, under an enemy's fire, unsupported by the excitement which stirs the blood and animates the heart of every man engaged in actual conflict. The position of the Medical officer is described as non-combatant, and rightly so in accordance with the ordinary meaning of the word. He joins not in the heady fight, feels not the wild excitement of the charge, adds not his voice to the cheer of victory. Calmly he must wait with his hospital 'in the rear,' while the shot-torn and dying, whose lives depend upon his firmness, are brought in. He knows not how the tide of battle ebbs and flows; at any moment a storm of shot may sweep his patients and himself into eternity; the position of his hospital may be carried by the enemy, or ridden over by a routed party of his own side, or, should he be safe from these dangers, he may be called upon the field itself to perform, under fire, the most delicate of operations, or to accompany the storming party to the breach. Yet it is commonly supposed that the Medical officer is never in danger, and that his non-combatant position is a protection from the bullet and round-shot of the enemy. Not many years ago it was even held by some military officers that he should receive no pension for wounds, as he had no business to be in danger, his proper position being 'in the rear.' 'In the rear' indeed has always been his position, as far as advantages are concerned. 'In the rear' he remains at present, his proper rank denied him, his promised advancement withheld. So far, indeed, is he 'in the rear,' that he is now becoming difficult to find, and is likely soon to be left behind altogether.

"The death of an Assistant-Surgeon may seem a matter of small moment to the military authorities now, but, ere long, they will be ready to cry out—'We could have better spared a better man.' A day of heavy retribution is at hand for the Government which has, by its ill-treatment, permitted the Medical services to advance so far on the road to disorganisation; but it continues obstinate in its short-sighted policy, and still refuses to confirm those advantages, so often promised and withheld, which will alone induce Medical men to attach themselves to the army. We learn from England that the position of the military Medical services, and the treatment they have received, are thoroughly appreciated in the Medical schools. In former days, when reliance was placed on the good faith of the Government, no questions were heard in the schools about 'relative rank,' and the passed student thought himself lucky in obtaining a commission in the army Medical service. Now all stand aloof, and Professors warn their classes to avoid it. Why is this? There is no want of young Medical men of the highest promise at home. On board the merchant vessels lying in the Hooghly are to be found many gentlemen of excellent Professional attainments, who have given their services for a paltry fifty rupees per month. The shipowner for this pittance can obtain that which the Government fails to secure,—and why? Because he at least keeps faith with his servants, and holds out no promises which he does not fulfil. I am, sir, yours faithfully,

"Calcutta, December 8, 1863." "MEMOR.

ATROPISED AND CALABARISED GELATINE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—With reference to Mr. Streatfeild's letter of last week, permit me to state that, in the Ophthalmic Department of St. Mary's Hospital, atropised and calabarised gelatine, in various forms, has been used experimentally by Mr. Ernest Hart for upwards of three months, and other preparations, such as the atropine glycerine plasma, for more than six months. I think Mr. Streatfeild's attention should also be directed to the subjoined extract from M. Warlomont's paper on the Calabar Bean, in the *Annales d'Oculistique* of September 30 to October 31, 1863, to which the words quoted by Mr. Streatfeild in his January article bear the closest correspondence:—

(Extract translated.)

"The remainder of a square of paper, however small it may be, is not less irritating than is every foreign body to the eye; there results some lachrymation, which carries away a certain quantity of the active principle. On the other hand, it is, on the whole, a foreign body, which the Practitioner must himself undertake to remove, after having allowed it to remain the necessary time between the eyelids; and this is always a trouble which it would be good to have the power of escaping. We have made some researches in order to replace the paper by a mucilaginous substance, not irritating, and which, in contact with the tears, could dissolve itself; and although the result has not been absolutely satisfactory, we do not despair of attaining it; this would be, we believe, a grand perfection."

I may state that the sheets of gelatine which Messrs. Savory and Moore have supplied are of extreme thinness, and thus rendered unexceptionable in use. I am, &c.

ARTHUR T. NORTON,
Demonstrator of Anatomy, St. Mary's Hospital.

4, Westbourne-grove West, February 2.

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The New Pharmacopœia.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The compilers of the new British Pharmacopœia have, in my opinion, been guilty of a very serious oversight in omitting to place after each preparation its properties, uses, and dose; more particularly the latter, as the important changes made will cause a great deal of confusion with regard to some of the more powerful drugs.

The following extract seems peculiarly appropriate to the present time; it is taken from a curious old work, entitled, "N. Culpepper's Dispensatory," January 1, 1663, page 80:—

"Kind Readers,—The Right Worshipful the Colledg of Physitians of London in their New Dispensatory give you free leave to distil these common waters that follow, but they never intended you should know what they are good for." I am, &c.

Sheffield, February 1. M.

Treatment of Typhus.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I perceive with pleasure that Mr. Harding continues, in your columns, to discuss the propriety of administering alcoholic liquors in cases of what he is pleased to call "exhaustive diseases." As I have already taken a share, though a small one, in the discussion, you will allow me, perhaps, again briefly to canvass the merits of Mr. Harding's views.

As I understand him, Mr. Harding believes that alcohol is, in these diseases, both a food and a medicine. I really think, after the experiments of Dr. Ed. Smith, and the more recent reply of M. Perrin to M. Baudot, that no unprejudiced mind can still hold alcohol to be a food. I cannot think that M. Baudot's experiments are more trustworthy than those of the laborious and candid trio, MM. Lallemand, Perrin, and Duroy. No; if I mistake not, English Physicians now recommend alcohol for properties entirely distinct from any nutritious element to be expected from it. The praise of the drug is restricted to what is held to be its stimulant, and, consequent on that, its narcotic action. Suppose, then, that the action of the heart can be sustained, and sleep procured, as well or better without alcohol than with it, surely we are justified in preferring those other means; and the rather when we know that, apart from alcohol, convalescence is shorter and recovery surer than after the routine practice of alcoholic stimulation. Assiduous attention to the natural tonics, combined with the medicinal treatment by the dilute mineral acids, and the rendering of assistance to the digestive organs through the exhibition of camphor, cinchona, pepsine, etc., has reduced the mortality of typhus from 20 per cent. (the Hospital rate) to less than 10 in our rural districts.

Incidentally, Mr. Harding refers to the use of brandy in uterine hæmorrhage. To fly to brandy and to lean on it in such cases is to lean on a broken reed. I have sketched a more successful plan in my "Guide," etc., too long to be inserted here.

In reply to the remark, that the experience of one man ought not to counterbalance that of the most eminent Physicians throughout the empire, it may be said, that all improvements begin with one man, or a very few. How else are they to be brought about?

Physicians throughout the empire have been, and the majority of them still are, thoroughly wrong as to the dietetic use of alcoholics by the healthy. In this there is good ground for suspicion that they may be wrong likewise in their estimate of the value of these liquors in disease. The public, recognising our professional delinquency in the one case, are beginning to suspect us in the other. I have not yet had the opportunity of trying it, but I confidently expect that the wine which is truly the "fruit of the vine," and which has never had its natural constituents deranged by fermentation, will be found a valuable auxiliary in our treatment of long-continued exhaustive diseases. It will be well for us to bear in mind that such wine has become an article of ordinary commerce. I fain hope that some of us—may be a few as yet—are acting out in this matter, very possibly at some self-sacrifice, the old advice of the poet,—

——"si quid novisti rectius ipsis
Candidus imperti"——

Bodmin, January 14. I am, &c. H. Mudge.

COMMUNICATIONS have been received from—

Dr. Wilks; Vindex; Dr. Francis Hawkins; Apothecaries' Hall; Mr. J. J. Hardesty; Harveian Society of London; Dr. James Walker; Mr. Arthur T. Norton; Royal Institution; Mr. Furneaux Jordan; Mr. E. Marshall; Mr. E. R. Bickersteth; Mr. A. Beardsley; Mr. E. M. Thompson; Dr. Coghlan; Mr. D. W. Jones; Mr. C. Walls; Dr. K. McLeod; Mr. Charles Evans; Royal Medical and Chirurgical Society; Medical Society of London; M.D.; Dr. Humphrey; Ethnological Society of London; M.; Mr. W. B. Murray; Dr. A. Wilson; Mr. W. Thelwall; Mr. W. McCormack.

BOOKS RECEIVED.

The Dental Review: a Quarterly Journal of Dental Science. New Series. No. I. January, 1864. Robert Hardwicke.

*** This journal, which up to the end of last year appeared monthly, has now taken a more permanent and extended form, and is to be added to our list of quarterlies. This appears to be a wise measure on the part of the proprietors, as the Dental Profession has hitherto, we believe, possessed no quarterly organ for the publication of memoirs of greater pretension and scope than those which have appeared in its more ephemeral periodicals. The first number promises well. It contains papers "On the Use of Nitrous Oxide in Dental Operations," by Mr. Samuel L. Rymer; "On Hullihen's Operation of Drilling into the Pulp Cavity," by Mr. H. T. Kempton; "On a Case of Inflammation and Partial Absorption of the Fang of a Second Molar Tooth, produced by the Eruption of the Wisdom Tooth," by Mr. R. T. Hulme; "On Mechanical Restorations of the Mouth and Face," by Mr. Hockley; "On the Use and Abuse of the Vulcanite Base," by Mr. Weiss; and "On Disinfectants and their Application to Dentistry," by Mr. Tribe. There are also a good selection of articles from other journals, reviews of books, editorial articles, etc. The reconciliation which has recently taken place between the two principal parties into which the Dental Profession has been split, seems to have paved the way for the success of such a journal as this. We doubt not that it will receive full support from dentists, and will fulfil the promise of its first number. We will only add that in the matters of appearance, type, and paper, it is very creditable to the publisher.

Obstetric Aphorisms for the Use of Students. By J. G. Swayne, M.D. Third Edition. London: John Churchill and Sons. 1864.

*** "The object of this work is to give the student a few brief and practical directions respecting the management of ordinary cases of labour; and also to point out to him, in extraordinary cases, when and how he may act upon his own responsibility, and when he ought to send for assistance." We may be allowed to add, that many Practitioners, as well as students, may derive information from this most satisfactory manual. Within the compass of 134 duodecimo pages are compressed the results of much thought and extended experience. About a fourth of the space is devoted to the management of ordinary labour; the remainder is divided unequally between cases not requiring a consultation, and those where a second opinion is advisable. It is not possible, in the notice of a third edition,—itself a token of success and appreciation—to furnish detailed analyses; but as we have read the little work from beginning to end with the greatest pleasure, so we recommend it most heartily to all classes of our readers.

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 30, 1864.

BIRTHS.

Births of Boys, 1044; Girls, 1063; Total, 2107.
Average of 10 corresponding weeks, 1854-63, 1850·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	873	876	1749
Average of the ten years 1854-63	682·9	707·3	1390·2
Average corrected to increased population..	..	..	1529
Deaths of people above 90	..	..	15

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	2	4	5	..	15	4	2
North ..	618,210	9	5	15	5	13	18	..
Central ..	378,058	..	2	3	..	18	5	4
East ..	571,158	..	4	12	2	15	11	1
South ..	773,175	1	8	18	4	21	25	13
Total ..	2,803,989	12	23	53	11	82	63	20

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·099 in.
Mean temperature	39·6
Highest point of thermometer	54·0
Lowest point of thermometer	24·0
Mean dew-point temperature	34·5
General direction of wind	S.W.
Whole amount of rain in the week	0·23 in.

APPOINTMENTS FOR THE WEEK.

February 6. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m. Royal Free Hospital, 1½ p.m.

Royal Institution, 3 p.m. John Lubbock, Esq., F.R.S., "On the Antiquity of Man."

8. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital 1½ p.m.; Samaritan Hospital, 2½ p.m.

Medical Society of London, 8½ p.m. Dr. Gibb, "On Subglottic Œdema of the Larynx."

9. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Ethnological Society of London, 8 p.m. Augustus Oldfield, Esq., "On the Ethnology of Australia."

Royal Institution, 3 p.m. Professor Tyndall, F.R.S., "On Experimental Optics."

Royal Medical and Chirurgical Society, 8½ p.m. Mr. Callender's "Account of Amputations at St. Bartholomew's Hospital, 1853-63." Mr. Savory, "On the Absorption of Dead Bone."

10. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p m Middlesex, 1 p.m.; London, 2 p.m.

11. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.

Royal Institution, 3 p.m. Professor Tyndall, F.R.S., "On Experimental Optics."

12. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

Royal Institution, 8 p.m. Professor Wanklyn, "On the Synthesis of Organic Bodies."

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ORIGINAL LECTURES.

LECTURES ON THE BRITISH PHARMACOPŒIA: ITS CONSTRUCTION, ITS COMPARISON WITH THE LONDON PHARMACOPŒIA, AND THE VALUE OF ITS NEW REMEDIES IN THE TREATMENT OF DISEASE.

DELIVERED AT

The Royal College of Physicians,

By A. B. GARROD, M.D., F.R.S.,
Fellow of the Royal College of Physicians; Physician to King's College Hospital.

Lecture II.—Friday, January 29.

(Continued from page 147.)

Among the antimonial preparations some important changes have been effected—changes which I believe will be generally looked upon as valuable, and which will enable us to prescribe some of the salts of this metal with an increased feeling of confidence.

In the London Pharmacopœia, the antimonial compounds are the Tersulphuret or Black Sulphuret, found native, not itself used in medicine, but only employed in the preparation of the other antimonial salts; the Oxysulphuret, the Potassio-tartrate, and lastly the Compound Antimonial Powder. Of the value of the last-named preparation there has, as you are aware, been much difference of opinion, some considering it an active and effectual method of influencing the system by the metal; some, on the other hand, looking upon it as almost inert, or at least most uncertain in its effects, and far inferior as a remedy to the secret preparation which is sold under the name of "Pulvis Jacobi verus," or "true James' Powder." Perhaps it may be well that I should say a few words on this point,—explain why the London Pharmacopœia preparation is considered inferior to the secret remedy, and tell you of the experience gained during the investigation of this subject by our Committee.

I must remind you that the metal antimony forms with oxygen two well-defined oxides; the first, containing three equivalents of oxygen to one of the metal, is called the oxide or teroxide of antimony; the second, with five equivalents of oxygen, is termed antimonic acid; but besides these two there is a third oxide, containing oxygen in the proportion of one equivalent of the metal to four equivalents of oxygen, but this is probably not a simple oxide, but a compound of the two others; in fact, an antimoniate of antimony. The composition of these oxides can be thus represented, as seen on the board:—

Oxide or teroxide of antimony	SbO_3
Antimonic acid	SbO_5
Antimonious acid or antimoniate of antimony	SbO_4 or $SbO_3 + SbO_5$

The teroxide of antimony is dissolved pretty readily by weak acids, and when in the stomach it is probably soon converted into a salt, and absorbed into the system. On the other hand, the so-called antimonious acid is extremely insoluble, and probably almost inert. It has usually been argued by the supporters of the secret preparation, that in it the antimony chiefly exists in its soluble form; whereas, in the London Pharmacopœia preparation, it is stated to be more commonly found as antimonious acid or in the insoluble condition. The Pharmacopœia Committee, (a) in order to settle this point, had numerous analyses made, the results of which will, I hope, not be devoid of interest. One of the preparations so examined was the London Pharmacopœia Powder, originally procured from Messrs. Howard; a second was James' Powder (Newberry's); a third, James' Powder (Butler's),—both these latter firms, I understand, claiming to possess the original, or Dr. James' own formula; and a fourth was James' Powder, obtained by Mr. Squire, and stated to have been in store sixty years. From the analyses it appears that the antimonious acid or insoluble oxide varied in these different preparations, in round numbers, from 45 to 33 per cent., the amount being greatest in the old specimen of James' Powder; the teroxide or soluble oxide of antimony varied from 9 to less than 1 per cent., the greatest quantity being again found in the old preparation; next, in that made according to the direction of the London College, the bulk of all consisting chiefly of phosphate of lime, These analyses will certainly not explain the superior value that James' Powder is supposed to possess over the London Compound Antimonial Powder, and perhaps, after all, one preparation is as good as the other; certainly, I know of no trustworthy clinical experience which demonstrates the superiority of either.

We have, I hope, surmounted this difficulty of the oxides, and have arranged the antimonial salts in the following manner:—

The Black Sulphuret used for preparing the salts is placed in the Appendix; from it a solution of the terchloride is first formed, named *Antimonii Terchloridi Liquor*, a preparation to which we shall again have occasion to allude, and from this last preparation, by the action of water and carbonate of soda, the oxide is precipitated, which, washed and dried at a moderate temperature, forms *Antimonii Oxidum* of the British Pharmacopœia. It is, as you may observe, a white, moderately heavy powder, and, although insoluble in water, is readily taken up by hydrochloric acid; it is likewise rendered very soluble by the acid tartrate of potash or cream of tartar, and then forms tartar emetic.

As a preparation, there is introduced *Pulvis Antimonialis*, made by rubbing together one part of this oxide with two of precipitated phosphate of lime, which latter salt is placed in the Materia Medica chiefly for this purpose:—this powder, a substitute for Pulvis Antimonialis Compositus of the London Pharmacopœia, must be not only equal, but infinitely superior to James' Powder, provided the teroxide of antimony be the important ingredient; the mode of its preparation precludes the possibility of any variation in the amount of soluble oxide; in short, all the contained antimony is in the state most suited to allow of solution and absorption.

It is the opinion of many Physicians that all the good obtainable from the employment of the antimonial salts can be effected by regulated doses of tartar emetic; this may be true, but we can readily imagine that an oxide, which is insoluble in water, but slowly acted upon by the fluids of the stomach, would be less irritating, less sudden, but more lasting in its effects, than a soluble salt, like the tartrate of antimony, known to be capable of causing, under certain circumstances, intense local irritation. Oxide of Antimony is, undoubtedly, a preparation peculiarly adapted for administration in the form of powder or pill. The dose for an adult may vary from 1 to 5 grains, and that of the antimonial powder may be three times this amount. The question, whether the addition of the insoluble, and, probably, inert phosphate of lime is of any

(a) In the following table will be seen the detail of the analyses made of the Compound Antimonial Powder, and the different specimens of James' Powder, as reported to the Pharmacopœia Committee, and referred to in the Lecture:—

	London Pulv. Ant.	James' Powder. (Newberry).	James' Powder. (Butler).
Percentage soluble in water	1·137	0·461	0·917
Consisting of			
Antimonite of lime	0·42	0·095	0·134
Sulphate of lime	0·15	0·267	0·381
Alkaline salts	0·43	0·220	0·500
Percentage analysis of residue insoluble in water:—			
Antimonious acid	39·98	32·216	42·35
Teroxide of Antimony	1·76	0·601	1·61
Phosphate of lime	54·52	62·124	53·55
Lime	1·55	1·954	0·99
Residue	1·74	1·608	Lost by accident.
Loss	0·45	0·502	1·50
	100·00	100·00	100·00

The amount operated upon to determine the portion soluble in water was about 100 grains in each case. The amount subjected to analysis was 30 grains. The alkaline residue determined consisted mainly of potash; no trace of tartaric acid was discoverable in either of the samples of James' Powder. Sulphuric acid enough to account for the lime extracted by water was detected in each.

Analysis of James' Powder received from Mr. Squire, and guaranteed to have been more than sixty years in store. 20 grains only were subjected to analysis.

	Per cent.
Extracted by water	4·21
Contained—	
Teroxide of antimony	1·76
Phosphate of lime (?)	0·76
Lime	0·94
Alkaline salts	0·19
	3·65
Analysis of residue:—	
Antimonious acid	44·94
Teroxide of antimony	8·99
Phosphate of lime	36·32
Lime	3·71
Alkaline salts and magnesia	6·81
	100·77

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value, or does more than add to the bulk, I must leave to your own judgments to decide. In giving remedies possessed of little solubility, we must always bear in mind that the state of the stomach, and the time of administration in relation to food, powerfully influence their action.

The Liquor Antimonii Terchloridi, which is a strong solution of the chloride of antimony, specific gravity 1·47, is a powerful caustic, and has been employed as such to poisoned wounds, and so forth; the chloride, in its solid state, has also been used as an escharotic.

The Oxysulphuret is retained in the Pharmacopœia, but under the name of Antimonium Sulphuratum.

In the list of the Materia Medica will be found a root called *Nectandra*, or Bebeeru bark; derived from the Nectandra Rodiæi, or the Greenheart-tree, and imported from British Guiana. It occurs, as you will observe, in large, flat pieces, greyish brown externally, and cinnamon-brown within, and having a strongly bitter and astringent taste. This bark can, of course, be given in the form of powder, infusion, or decoction, but no such preparations are introduced into the Pharmacopœia; but, in lieu of them, the sulphate of its contained alkaloid is inserted under the name of *Beberiæ Sulphas*, or Sulphate of Beberia, and to this substance I will call your attention.

The salt has not yet been crystallised, but is found in commerce in thin, dark-brown, translucent scales, soluble in water and spirit, very bitter to the taste, and possessing other characters which are fully described in the Pharmacopœia, but which it is unnecessary to detail here. The free alkaloid, which is readily separated from the salt, occurs as a yellow amorphous powder, and the composition of the sulphate is supposed to be represented by the formula on the board, $C_{38}H_{21}NO_6, HO, SO_3$. We must now inquire into the action of Beberia, or rather its sulphate, and I must inform you, should you not already be fully conversant with its powers, that it is one of the many substances which has been proposed as a substitute for quinine; it has been largely employed in Edinburgh, and said to be a tonic of much value, and an antiperiodic, little or not at all inferior to sulphate of quinine. It was chiefly through the inquiries of Dr. Douglas Maclagan that it was introduced into Great Britain. There is one advantage it is asserted to possess over quinine, namely, that it is not so liable to excite the circulation or affect the nervous system. My own experience of sulphate of beberia is limited, but still sufficient to cause me to entertain great misgivings as to its antiperiodic powers. I have administered it in about three cases to patients in the Hospital labouring under intermittent fever, either quotidian or tertian, and certainly in all instances it most signally failed in arresting the progress of the disease, although pushed to the amount of causing some disturbance of the stomach; the same patients were afterwards at once cured by the exhibition of the ordinary doses of quinine. On mentioning the result of these trials to an Edinburgh Physician, he told me that it was now admitted that sulphate of beberia possessed little power in arresting ague, but that its value was chiefly seen in the treatment of pains of a periodic character, in neuralgic headache, for example. I cannot, as yet, either affirm or confute this statement; but, as the salt is now rendered officinal, there will be no lack of opportunities of testing its value in the various forms of diseases of the nervous system. In ascertaining the powers of a proposed antiperiodic, I usually first observe the influence which the change of locality and diet has upon the disease; for it must not be lost sight of, that occasionally these circumstances are sufficient to arrest periodic affections, and results may in this way be ascribed to medicines, which in reality are due to an altered hygiene. I should mention that the dose of sulphate of beberia is usually considered to range from one to five grains; as an antiperiodic I have occasionally administered as much as ten grains.

There is a plant employed in medicine, the preparations of which are often complained of for their want of uniformity of action, to which I must now draw your attention for a few minutes—I allude to the Conium Maculatum, or Hemlock; and I refer to it more especially, as a fresh portion of this plant is now made officinal, and certain alterations have been effected in its preparations.

In the London Pharmcopœia, Conium is defined to be the leaf of the wild plant, and there will be found the tincture, ointment, and extract, and from the extract the cataplasm is made.

Hemlock appears to owe its activity to the possession of an alkaloid termed *Conia*; and this principle is somewhat peculiar, inasmuch as, when separated from the acid with which it is combined, it occurs in the liquid form; it is an alkaloid which is represented by the formula on the board, $C_{16}H_{15}N$; it is a body which very readily undergoes decomposition from exposure to the air, so as to render it necessary, when in a free state, to be preserved in sealed tubes; and even when combined with an acid, as in the plant, it is still very liable to change.

These facts will at once enable you to understand how it is that the dried leaves and the extract are apt to vary in activity; and they explain equally the uncertainty in the strength of the old tincture, which is prepared from the dried leaf. These circumstances have induced the committee to introduce the fruit of the hemlock into the Materia Medica, and to substitute this part of the plant for the leaf in the formation of the tincture; and they have done so under the impression, doubtless correct, that the alkaloid is less liable to become injured in this form.

The tincture of the British Pharmacopœia, now termed Tinctura Fructûs Conii, contains the activity of two ounces of the fruit to each pint of spirit. Another introduction has been that of the recent juice, Succus conii, made from the fresh leaf, with the addition of spirit sufficient to prevent decomposition. Within the last few years I have made many observations upon the action of Conium, the results of which may probably appear astonishing to those who have not given the remedy in a similar manner. I have also compared the tincture of the London College with that of the British Pharmacopœia, and will now shortly relate my experience.

Hemlock is looked upon as a powerful and direct sedative to the nervous system, more especially to the spinal cord: in cases of poisoning with the plant, paralysis of the extremities ensues, the functions of the brain usually remaining intact. I need scarcely state, that it is most frequently employed to allay spasm, more particularly of the respiratory organs; and that it has been recommended very highly for the purpose of alleviating the pain and altering the diseased action in carcinomatous affections; in these last cases its influence can hardly be said to have proved beneficial, certainly not curative.

When I commenced making clinical observations on the action of this drug, I was under the impression that the dose of the tincture sufficient to effect any good results was from twenty to thirty minims; and with such doses I commenced; but I soon found that, in order to produce any appreciable physiological symptoms, the amount must be greatly increased; and I was gradually led to augment the dose from half a fluid drachm even to the apparently enormous amount of a fluid ounce. In at least twenty cases, the details of which I hope to make public, from one drachm to half-an-ounce has been administered three times a-day; and within the last fortnight I had a patient taking a fluid ounce at each dose, without experiencing the slightest discomfort—in fact, without the exhibition of any symptoms from its employment. In many of these cases, the tincture made use of was prepared expressly from the leaves most carefully dried, and at establishments of which the reputation is undoubted.

In the above observations, the tincture of the London Pharmacopœia was used; but I have recently had opportunities of comparing its strength with that of the tincture of the fruit prepared according to the directions of the British Pharmacopœia. In the case of the man above alluded to as taking a fluid ounce of the London tincture for a dose, it was found, when the tincture of the fruit was substituted, even five fluid drachms was sufficient to cause the development of some symptoms; but these were only slight, and consisted in some sensation of tightness of the forehead and a little alteration of vision, and, perhaps—but it was difficult in this case to be certain—of some increased feeling of numbness of the lower extremities.

I consider the new tincture to possess at least twice the strength of the old tincture; but even this British Pharmacœpia tincture is, as you will gather from my observations, by no means very potent. From many trials, I am inclined to look upon the relation of strength of good fresh extract to the old tincture as in the ratio of about twelve grains of the former to half-an-ounce of the latter; and, if such be the case, the results obtained do not differ much from those derived from the use of the extract, of which almost fabulous quantities have been asserted to have been given in cases of cancer.

As to the use of Conium in large doses, I must now add a few remarks. I have been led to the employment of hemlock in cases of severe spinal disease, both functional or structural; and I may add that in many instances much advantage has followed its administration. In paraplegia, when there

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exists a sub-inflammatory state of the spinal cord, as indicated by the pain in the back and startings of the limbs, hemlock proves of great service; and I have often seen the incontinence of the urine checked by the drug. It is in cases where strychnia aggravates the patient's symptoms that Conium relieves. In one well-marked case of paraplegia, of long standing, arising from a very prolonged exposure to wet and cold—in fact, from the man, during a shipwreck, having been immersed up to his shoulders in the sea, supported by a spar, for more than thirty hours—this remedy appeared to be of eminent service. When admitted into the Hospital, this patient could scarcely crawl from bed to bed, was unable to retain his urine, had pain in the back, severe startings of the legs at night, and was altogether in a very deplorable condition. From the employment of the hemlock in gradually increasing doses, the symptoms became much alleviated, and after its prolonged use he was enabled to walk about the wards, and go up and down stairs; and after a still further time he was sufficiently recovered to engage himself as a sailor on board a vessel bound for Norway, his native country. As a point of some interest, I may remark that, during his sojourn in the Hospital, and after partial recovery, he had very minute doses of strychnine administered to him; but it was found that this drug invariably brought back the more distressing symptoms, and more especially the incontinence of urine.

I cannot help suspecting that in very many cases of paraplegia, even when the ordinary symptoms of irritation of the spinal cord are not detectable, some lurking action may exist which is aggravated by the exhibition of strychnine, but generally soothed by fair doses of hemlock.

Of the British Pharmacopœia tincture, the dose may range from half-a-drachm upwards, according to the nature of the case and the urgency of the symptoms.

ORIGINAL COMMUNICATIONS.

ON RUPTURE.

By JOHN WOOD, F.R.C.S.,
Demonstrator of Anatomy, King's College, London, and Assistant-Surgeon to the Hospital.

No. III.

On Congenital Rupture.

A great proportion of the cases of oblique hernia occurring in adults have their primary origin in causes operating at the period of development. In many cases, these result in the production of a congenital rupture appearing at the time of or soon after birth. These are often treated as of little importance, under the name of "windy rupture."

About the eighth lunar month of fœtal development, the testes traverse the inguinal canal, and at the close of that period should have escaped from the superficial ring into the scrotum. Many causes may operate in retarding this process, so that these glands cannot be felt in the scrotum until some time after birth—the delay extending to months, and even years; and yet this object is finally effected. Nor does a rupture always immediately appear in consequence of this retardation. The arrest of the gland may take place in the inguinal canal, and the deep ring may be effectively closed before the testis escapes from the superficial ring. But in all cases in which the gland has attained a greater proportionate size before its descent, its passage through the ring leaves these more open than normal, less effectively sealed, and more disposed to allow of a rupture in after years.

At the end of the second month of intra-uterine life, the testes, or ovaria, are developed at the inner side of the corpora Wolffiana. These bodies are found in the lumbar region, below and in front of the kidneys. From the lower part of the convoluted structures which finally form the epididymis, descends, along the psoas muscle, through the internal ring, and finally connected with the dartos at the bottom of the scrotum, a cylindrical cord composed of unstriped muscular fibres arranged as a tube around a central areolar cylinder. This is best seen about the fifth month. It is "the gubernaculum testis." This structure may be ascertained, by careful dissection with a lens, to be connected with the peritoneum considerably lower down than the lower end of the gland itself. It is thicker at the upper part of the inguinal canal and in the abdominal cavity than it seems to be in the scrotum. It is connected also with the lower end of Poupart's ligament externally, and with the conjoined tendon of the internal, oblique, and transversalis internally. During the fifth month, when the testicle has assumed its characteristic shape by becoming connected, through the transverse cœca, or "coni vasculosi," with the excretory tube, or vas deferens, it begins to shift its position, and to descend towards the inguinal ring. Preceding it through the canal during the seventh month is a tube, or pouch, of peritoneum, drawn down by the contraction or progressive development of the gubernaculum, and which finally becomes the tunica vaginalis testis. This pouch, thus preceding the descent of the gland, may, when the descent of the latter is arrested, become, if the child cries or struggles much, the seat of an intestinal protrusion, and thus give rise to a windy rupture, even before the gland itself can be felt. This condition I have many times observed. At the close of the period of gestation, the communication of the tunica vaginalis with the peritoneum at the internal ring usually becomes closed, by adhesion of the sides of the "canal of Nuck," and its replacement by a very tough fascia connecting the elements of the cord or round ligament closely to the peritoneum.

In certain cases, the canal which connects the tunica vaginalis with the peritoneum, instead of being completely obliterated along the inguinal canal from one ring to the other, becomes closed only at a small point below the deep ring, leaving a pouch still protruding through that aperture. This, becoming the seat of a hernial protrusion, protrudes into the tunica vaginalis below it, invaginating the latter before it as a double layer of serous membrane covering the true sac of a hernia. Such a rupture is called an "infantile hernia," and is characterised by the presence of three layers of serous membrane intervening between the skin and the bowel. This peculiarity becomes important only in case of an operation for strangulation being required. When the bowel is reduced and the true sac invaginated in these cases, the tunica vaginalis is unfolded and stretched out.

In the female also, a structure homologous to the gubernaculum exists, and may be demonstrated by a careful dissection. It is feebler than in the male, and connected with that portion of the excretory tube of the Wolffian body which is homologous to or becomes the vas deferens in the male; but, failing to become attached to the ovary and to form the excretory duct, as in the male, it degenerates into a round cord, the "ligamentum teres uteri." This cord follows the same course as the vas deferens, epididymis, and testicle in the male—*i. e.*, it is drawn down the inguinal canal by the gubernaculum, and fixed to the labia majora, the homologue of the scrotum. Along with and preceding it is drawn a small pouch of serous membrane, — "the canal of Nuck." This, on account of its small size, is soon obliterated. If, however, a portion of bowel be forced into it, it forms a windy rupture in the female infant. Such cases of congenital inguinal rupture in female infants are not very uncommon. I have in the last few years had many sent to me. Sometimes they become towards adult life larger and more troublesome. In two instances I have operated for the radical cure in such cases with complete success. In certain cases, the round ligament seems to form a more complete attachment to the ovary, approximating to the male formation as before alluded to; then the ovaries themselves may be drawn down by the gubernaculum, and either lodged in the inguinal canal or in the labia majora. In these cases an oblique inguinal hernia is usually, but not always, co-existent, and in the sac the ovary may be distinctly felt and recognised, or may be more plainly exposed by operation. At the Pathological Society's meeting in January, 1864, such a specimen was exhibited, and more are placed on record; in some, the ovary is drawn as far as the inguinal canal only, and escapes observation, until a protusion of the bowel forces it further down into the sac. Here, also, as in the male, the protruded intestine is placed in front of the gland.

The causes of non-descent of the testicle are closely related to those of congenital rupture. In the latter the glands are retarded in their descent by an imperfect development or want of vigorous action of the gubernaculum, until they are so large as to leave the inguinal canal and rings dilated; the former is produced either by the complete atrophy of the muscle, or by adhesions of the gland taking place to some of the viscera (most frequently the colon) from inflammatory action "in utero." Such imperfect development of the gubernacular apparatus again has a relation to a similar imperfection and want of development of the lower fibres of the internal oblique, with which the gubernaculum is closely connected at Poupart's ligament, as well as at the conjoined tendon.

Mr. Curling's view of the relation between the gubernaculum and the subsequently developed cremaster, viz., that the latter is formed by the inversion of the lateral fibres of the former, seems to me at once plausible and ingenious. I have already pointed out that a frequent cause of oblique rupture in adults is an imperfect support to the deep ring and inguinal valve by a deficiency of the lower fibres of the internal oblique. In these cases there has been a retarded descent of the testis in early life, leaving a patulous condition of the deep and superficial rings. They are usually associated with a feeble development of the cremaster muscle; the imperfection in the apparatus has not revealed itself until a vigorous effort of the abdominal muscles has found the weak point of resistance; a relation is thus established between congenital rupture and a numerous class of oblique ruptures occurring in adult life. These ruptures, in many recorded cases, and probably in more which are unsuspected, have their sacs formed only by the tunica vaginalis. Such cases I believe to be characterised by their sudden formation, without a preparatory stage of bubonocele, suddenly appearing as fully-formed scrotal herniæ, resting directly upon, and in front of, the testis, and usually obscuring this gland more than in ordinary cases. Upon some occasion of more than ordinary exertion, the membrane closing slightly, the opening of the inguinal canal gives way, and permits the bowel to pass into a ready-made sac of tunica vaginalis. The crowning act of the development of the individual, both in animals and plants, seems to be that of the reproductive organs; a failure of the vital force to complete their formation fully might be expected to show itself more frequently than other malformations from arrest of development, and is seen in the greater frequency of this form of rupture.

ON A CASE OF SPONTANEOUS THROMBOSIS IN THE LEFT FEMORAL AND SAPHENA VEIN.

By H. M. TUCKWELL, M.D. Oxon.,
Late Radcliffe Travelling Fellow.

A. B., aged 33, has previously enjoyed good health; during the past year has allowed himself but little rest in his profession, and has become thoroughly overworked. His present illness commenced about a month ago with severe pain in the head, which lasted five or six days without intermission, and left him much weakened. The pain then shifted to the loins, and continued there for two weeks, during which time he was extremely depressed and unable to get about. At the end of this time, rather more than a week ago, he was attacked suddenly in the night by a violent pain in the right side, which seems to have been purely neuralgic, for no signs of pleurisy could be detected at the time; this pain continued for three days and nights, during which time *he lay continually on the left side*, without sleep, and taking no food, till, on the fourth day, it left him almost as suddenly as it had come on. On attempting now to change his posture he found that the left leg was quite numb, that sensation began to return after rubbing the leg for a time, but that, with returning sensation, there came on an intense pain in the lower part of the leg, more especially in the calf; that he soon observed the leg and foot beginning to swell; that the swelling gradually involved the whole leg and extended up the thigh to the groin, the pain becoming generally diffused and intensified as the swelling extended and increased. I saw him on the fourth day after the swelling had commenced, when the following appearance presented itself:—

He is extremely prostrate, unable to raise himself in bed; the eyes hollow; the voice low and changed; skin generally cool, except that of the left leg, which is abnormally hot; pulse 60, very small, thready and irregular, intermitting at every third beat; thorax generally resonant on percussion; respiration feeble, but free from any morbid sound; urine natural. The left leg, from the groin to the toes, is enormously swollen, pitting everywhere deeply on pressure, its surface is hot and very sensitive; an indistinct hardness can be felt through the œdema along the course of the femoral and saphena vein as far as Poupart's ligament, above which point it cannot be traced; beneath the œdematous integuments large superficial veins are seen ramifying along the anterior and outer aspect of the thigh.

Diagnosis.—Thrombosis of saphena and femoral, perhaps of external iliac vein.

Treatment.—To relieve the pain, cold was applied to the whole limb in the form of evaporating lotions, and the limb was supported on pillows. Small quantities of brandy and wine were administered, with milk and beef-tea.

On the day following, Mr. Savory saw the case with me, and gave me the benefit of his valuable opinion. He fully concurred in the diagnosis, but advised that the leg should be wrapped in cotton-wool, and pressed upon me most forcibly the necessity of increasing the quantity of stimulants, bidding me, to use his own words, "measure the quantity not by the glass or bottle, but by the effect produced." From this time, brandy, rum, port, sherry, and champagne were given every two or three hours day and night, till, on the sixth day from the time that I first saw him, he was taking, in the twenty-four hours, brandy, ʒxij.; rum, ʒxij.; wine, ʒxx. The effect of this on the pulse was as follows:—It rose from 60 to 94, the intermissions at the same time becoming less frequent, and the volume better and better, till, on the tenth day from the time that the stimulants were first given, and while he was still taking the above quantity, *it fell to* 84, and ceased to intermit. His general condition improved, *pari passu*, with the pulse. At the request of the patient, I returned to the cold applications, after having made fair trial of the cotton-wool, and found that it made the leg uncomfortable, while the cold relieved the pain in a marked degree. On the twelfth day, the pain having quite subsided, while the swelling remained unchanged, the leg was carefully rolled in flannel bandages, moderate pressure being at first employed and gradually increased, and it was swung from a fracture cradle, with the foot slightly raised. This was continued during a period of seven weeks, at the end of which time the swelling had entirely disappeared. It may be remarked, that the œdema subsided rapidly for the first week after the application of the bandage, but then seemed, for a time, to remain stationary, and was at last slowly removed. The quantity of stimulants was gradually reduced after the fourth week.

He has now recovered his health, can walk two or three miles in the day, but still finds, after a walk, that the leg and foot feel heavy, and that the veins in the foot become, in spite of a lace-stocking, considerably distended. There is now nothing abnormal to be felt or seen in the thigh in the region of the large veins, nor is there any visible enlargement of the superficial veins there.

Remarks.—The occurrence of spontaneous coagulation in the living veins, simply as a result of nervous debility, independently of the puerperal state, of fever, or of any wasting organic disease, as phthisis, cancer, etc., is, seemingly, a rare phenomenon. On reading through Virchow's (a) masterly paper on the subject, I cannot find, among the many cases of thrombosis there enumerated, one exactly similar; nor is there in Cohn's (b) monograph one case in which there was not either some organic disease or fever to account for the coagulation. Not that I wish to instance this case as one whose pathology is distinct or special, for the so-called "Marantischer Thrombus" of the Germans, or clot that forms in wasting diseases, is, as Virchow (c) has shown, dependent primarily on the same cause,—an enfeebled state of the heart's action; but the disease here presents peculiar interest, in that there was an absence of any dyscrasia or fever which might be supposed to give rise to the formation of a thrombus by altering the composition of the blood; it shows that to a feeble heart alone may be attributed all the symptoms and signs of the worst form of "phlegmasia dolens." It may be urged by some, in contradiction of this assertion, that phlebitis was here the real cause of the coagulation; but a careful observation of the way in which the disease showed itself seems to me to afford convincing evidence that no phlebitis whatever was present, and thus to confirm still further the doctrines of Virchow. The rapid development and extent of the swelling certainly point to a primary obstruction of the main venous trunk in the thigh. Now, if this obstruction had been due to phlebitis, surely the first symptoms of pain and swelling would have been noticed in the immediate neighbourhood of that venous trunk, whereas nothing of the kind was observed. The swelling and pain commenced in the leg and foot, and extended, last of all, to the thigh; nor was there at any time marked pain, along the

(a) "Handbuch der Speciellen Pathologie und Therapie," 1854, p. 156; "Gesammelte Abhandlungen zur Wissenschaftlichen Medicin," 1856, p. 458.

(b) "Klinik der Embolischen Gefässkrankheiten," 1860, p. 115.

(c) "In every case, where the heart's action is much enfeebled, there exists a tendency to partial stagnation of blood in the veins; and the veins most likely to be the seat of this stagnation are those of the lower extremities, those of the pelvis, and the cerebral sinuses."

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course of the obstructed vein, distinct from that felt all over the leg. Besides, the general symptoms were not those of an acute inflammatory process; the skin of the body, generally, was cool, and the pulse quite unlike that of inflammation. The conversion of the saphena and femoral vein into a solid tube by coagulation of their contents, is quite sufficient to account for the hardness felt along their course.

John Davy (d) and Gulliver (e) were the first to notice the frequent occurrence of clots of this kind in the veins of those who had suffered from chronic diseases, with failing circulation and great prostration of the vital powers. After them, Hasse (f) and Bouchut (g) turned the attention of pathologists still further in this direction. But to Virchow must be awarded the largest share of praise, for he it was who first cleared away the mists which enveloped the whole subject; he showed, by repeated experiments and post-mortem examinations, that the doctrine of phlebitis, first promulgated by John Hunter, is erroneous; that the coagulation is not preceded by inflammation of the vein, and that there is no exudation on the free surface of its inner coat which determines coagulation; but that, through failure of the heart's power, the blood current is retarded and finally stagnates, and that the starting-point for coagulation is at the point of junction of the valve with the wall of the vein, the valve here (like the chordæ tendineæ in the heart) acting as a foreign body, and furnishing a centre round which the stagnant blood coagulates.

It is worthy of notice that, in circumstances predisposing to thrombus formation, a long continuance in one posture seems to favour the occurrence of the phenomenon, and that the side to which the patient inclines is often the side on which the clot forms. Virchow dwells upon this, and relates cases which corroborate the statement. Cohn has observed the same; he mentions one case in particular—a case of Bright's disease with effusion into the right pleura—where the patient lay continually on the right side and right arm, and where the whole right arm became œdematous from the formation of a thrombus found after death in the subclavian vein.

The contingencies to be feared in these cases are, first, that the heart may not be able to recover itself, and that death by asthenia may follow rapidly; secondly, that erysipelas may set in, followed by diffuse abscess, or even gangrene; thirdly, that a portion of the clot may be detached and washed into the pulmonary artery, causing sudden death; fourthly, that the clot may undergo the so-called retrograde metamorphosis, may soften and break down in its interior, and that this softened, ill-conditioned fibrine may be carried into the general circulation, and cause death from pyæmia. The heart must regain its lost power, and the clot must undergo a healthy process of organisation, before anything like a favourable prognosis can be given.

The question then arises as to how the circulation is re-established; the answer to which is, by the formation of collateral channels, if the vein be completely obliterated by the organised clot. But it may also happen that the canal of the obstructed vein may in part reopen; that the clot, during the process of organisation, may shrink away from one wall of the vein as it becomes adherent to the other; and that the blood may flow on again in its original channel, now of necessity much narrowed by the changes that have taken place. It is probable that the latter has occurred in the case related, from the fact that there are no large superficial veins visible.

The circumstances of principal interest in the treatment employed are, the beneficial effect of cold, the value of pressure, and the necessity of stimulants.

The application of cold—a remedial agent so largely employed in Germany—is strongly recommended by Virchow as the best and often the only means of alleviating the terrible pain that follows the sudden obstruction by an embolus of one of the large arteries of the extremities. The relief it afforded in this case was most marked. Pressure carefully applied and gradually increased by means of a flannel bandage—a plan of treatment employed by many obstetric Physicians in the later stages of the puerperal phlegmasia dolens—was here, too, attended with good results. The rapid and manifest improvement in the general condition of the patient, and the restoration of the heart's power in proportion as the quantity of stimulants was increased, sufficiently indicate their importance in the treatment of such cases. And, surely, if alcohol acts thus beneficially after the mischief has been done, we cannot avoid the reflection, that the free use of alcohol in wasting diseases may often avert the mischief altogether, and that the stimulant plan of treatment has, at any rate, this much to be said in its favour, that it tends to prevent the formation of thrombi. In the history of this disease we have, certainly, one satisfactory example of the way in which a real advance in pathology leads to a corresponding advance in therapeutics.

(d) *Edin. Med. Jour.*, 1839, p. 368.
(e) *Med. Chir. Trans.*, 1839, p. 146.
(f) "Anatomische Beschreibung der Krankheiten der Circ. und Resp. Organe."
(g) *Gazette Médicale*, 1845.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

PHTHISIS, MITRAL DISEASE, AND BRONCHITIS.

(Under the care of Dr. THOMPSON and Dr. GREENHOW.)

The following case presents two especially interesting features. First, the coexistence of tubercular phthisis with cardiac disease, emphysema of the lungs, and dilatation of the bronchial tubes, causing a highly venous condition of the blood; and, secondly, the subsequent arrestment of the tubercular dyscrasia. The patient had suffered for several years before presenting himself at the Hospital from gradually increasing palpitation of the heart, and annually, in the spring and autumn, from chronic cough. His work had consisted chiefly in wielding, for many hours daily, a heavy smith's hammer, and he had continued this labour until just before coming under observation. When he first presented himself at the Hospital in March, he was unmistakably suffering from phthisical disease in the apices of both lungs, and from disease in the mitral valves of the heart, attended by regurgitation. The latter disease was subsequently masked during the attack of acute bronchitis, for which he was admitted into the Hospital in November, but became again distinct before death. For some time after the case first came under observation, the hot skin, quick pulse, and raucous voice indicated that the phthisical disease was progressing; these symptoms, however, abated gradually under treatment; the patient decidedly improved in general health and strength, and his weight increased from 124 lbs. at the beginning of May to 130½ lbs. in September.

He returned to employment in May, and continued throughout the summer his blacksmith's work—a kind of labour very likely to aggravate cardiac disease.

When he presented himself at the Hospital in October, he was suffering from a severe attack of acute bronchitis, attended soon afterwards by anasarca. At this period, although the physical signs of phthisis remained, the disease itself had obviously for some time ceased to extend, and, as was shown by the post-mortem examination, had been actually arrested. It is unquestionable that this arrestment took place between March and October; and, in all probability, it was mainly owing to the progress of the cardiac disease causing a more highly venous condition of the blood.

Joseph H., aged twenty-six, blacksmith, unmarried, was admitted an out-patient, under the care of Dr. Greenhow, on March 20, 1863. Father died of heart disease with dropsy, but there had been no case of phthisis in the family, and patient had never suffered from rheumatism. Had suffered for some years from palpitation of the heart, which had come on so gradually that he could not date its commencement from any particular time. Had been subject to cough occasionally for several years, and had had an attack of hæmoptysis about a year before his admission, since which time he had gradually declined in health. Complexion very pallid; face full and puffy; lips very livid, almost cyanosed. No œdema of ankles, and urine free from albumen. Complained of dyspnœa and cough, with expectoration. Voice raucous; skin hot; pulse 90. Loud systolic murmur at nipple, heard also in axillary region. Dulness on percussion both in right and left, but especially in left infra-clavicular region; cavernous respiration, with gurgling in apex of left lung; coarse crepitation in apex of right lung.

℞. Hst. Acid. nit. mur., ʒj.; vin. ipecac., ♏x.; tinct. hyoscy., ♏xx. M. Ter. die. sum. Ol. balenæ, ʒj., ter. die. sum.

April 4.—Cough relieved, and patient feels much better;

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but pallid complexion, livid lips, and physical signs remain as before.

℞. Tinct. ferri sesquichlor., tinct. digitalis, āā., ♏xx.; acid. hydrochlor. dil., ♏x.; aquæ, ʒj. M. Ter. die. sum. Ol. balenæ, ʒij., ter. die.

May 3.—Patient still reports himself better, having gained strength and retured to his work. Weight 124 lbs.

℞. Syr. iod. ferri, ʒj.; aq. menth., ʒvij. M. Ter. die. sum. Ol. balenæ, ʒij., ter. die. sum.

Under this treatment patient decidedly improved, his weight gradually increased up to 130½ lbs., the cough and expectoration greatly diminished, and he was able to continue at work till the beginning of October.

October 30.—He presented himself after a rather longer absence than usual, suffering from acute bronchitis. The bronchial râles were so loud as to mask both the phthisical signs and the mitral murmur. The lips were quite purple, and the whole face had a livid hue. Anasarca supervened in the course of a few days, and the patient's weight increased suddenly after its appearance to 136 lbs. Being now quite unable to attend as an out-patient, he was admitted into the Hospital, under the care of Dr. Thompson, on November 10.

State on Admission.—Face and lips much swollen and livid. Tongue livid and moist. Pulse 120, small and weak. Respirations 40, irregular. Integument of the chest œdematous. Right front of chest yields, on percussion, a full and clear sound. On the left front percussion yields a dull, though tympanitic sound. Præcordial dulness much increased in every direction. No valvular murmur heard. Under left clavicle bronchial breathing, accompanied by moist sounds of a sharp and almost metallic character. On the right front, and also on both sides behind, rhonchus and sibilus heard.

November 12.—Face dusky; frequent loose cough; expectoration muco-purulent and frothy; pulse 112, weak; respirations 52, chiefly diaphragmatic; slight œdema of lower extremities.

14th.—Moist sounds of rather metallic character at end of inspiration, and tubular breathing with expiration on left front; similar sounds above right scapula; slight roughness of second heart sound heard at base and along the course of the greater vessels; moist sounds over middle and lower region of back less abundant and less intense.

18th.—Cough much easier; complains of pain in lower part of abdomen; percussion sound in left flank, though tympanitic, is dull, and there is marked resistance to finger; no dulness on right side; much distension of abdomen; no fluid in peritoneum.

19th.—Œdema has increased; a loud systolic murmur is heard about two inches below the mammæ and one inch to the left of the sternum; second sound is roughened at the second intercostal space; external jugulars turgescent and beaded.

20th.—Complains of pain in epigastric region, where there is also much tenderness on pressure.

21st.—Breathing greatly relieved, and face and lips much less livid; pain in epigastrium and left flank still continue.

24th.—Complains of tightness in upper part of abdomen; slight fluctuation on percussion.

26th.—Sounds under left clavicle much less of the ringing cavernous character, approaching more nearly to sub-crepitation; œdema and pain in abdomen diminished; pulse 120, excessively weak. He became worse on the 27th, and died on the morning of the 28th.

Autopsy Fifty-two Hours after Death.—Body generally well-nourished, but very œdematous, especially the lower extremities. Face livid and bloated. Thorax: right pleural cavity completely obliterated by old adhesions; very firm at apex of lung, loose at lower part. Upper part of left lung firmly adherent to thoracic walls. In lower part of left pleural cavity some ounces of clear serous fluid. Both lungs very voluminous, and emphysematous in front. Posterior parts congested. In the posterior part of apex of right lung was a cavity of irregular oval shape, about two inches in long diameter. Its inner surface was nearly smooth, and appeared to be lined by a delicate membrane. Some bronchial tubes could be seen ramifying on the walls of the cavity, but none apparently opened into it. Its posterior wall was formed by thickened pleura, and a very thin layer of condensed pulmonary tissue. There was also a layer of condensed and apparently collapsed pulmonary tissue, about half an inch in thickness, between the cavity and the apex of lung, which was puckered on the surface. In front, the pulmonary tissue, even immediately external to the lining membrane, was apparently unaltered. Near this cavity was a smaller one, about the size of a hazel nut, the walls of which were thicker and had a cartilaginous appearance, and which, like the other, did not communicate with any bronchus. The bronchi were uniformly dilated and thickened. In the centre of the upper lobe was a small globular cretaceous mass of the size of a pea, and on further examination another cavity was found of the size of a walnut, near the apex of the right lung, filled with a yellow, semi-solid, cheesy substance, having the character of old tuberculous matter. This cavity, likewise, had not communicated with any bronchial tube. In the apex of left lung was a cavity of similar appearance to that on the right side, but of rather larger size. It was situated towards the anterior surface, and, on close examination, there appeared to be an extremely thin layer of condensed lung immediately around the lining membrane, which was delicate and smooth, except at one point, where it appeared to be cartilaginous. No communication existed between this cavity and the bronchi. The bronchi throughout the left lung were uniformly dilated and the lung congested. The cavities in both lungs, with the exception of the one filled with old tuberculous deposit, contained a little reddish semi-fluid matter, having the appearance of mucus. Microscopic examination showed that the cavities in the lungs were not lined with epithelium, but that the walls were composed of fibrous and elastic tissue, and could not be distinguished from the surrounding condensed pulmonary tissue. Here and there in the walls was a small piece of cartilage. Heart: pericardium contained about four ounces of dark-coloured serum. The heart was of very large size. The right cavities were enormously dilated and filled with dark clots. The tricuspid opening would admit four fingers with ease. Wall of right ventricle was three lines in thickness at base. Pulmonary artery was of very large size, the circumference an inch above the valves being nearly four inches. Tricuspid and pulmonary valves normal. Left cavities were also much dilated; mitral valve somewhat thickened at margins with a row of minute vegetations on auricular surface; opening of normal size. Aortic valves healthy, not admitting regurgitation of water. Aorta, an inch above valves, two and three-quarter inches in circumference. Wall of left ventricle six lines in thickness at base and four at apex. Weight of heart eighteen ounces. Abdomen: peritoneum contained about two pints of dark-coloured serum. Firm fibrous adhesions united the upper surface of liver to the diaphragm and abdominal walls. The spleen, stomach, and colon were matted together by similar adhesions. The descending colon was also adherent to abdominal walls. The liver was of small size, left lobe small in proportion to right. Capsule much thickened. In the adhesions between the liver and diaphragm was a quantity of yellow, gelatinous-looking fluid. On section the liver had a somewhat nutmeg appearance; lobules distinctly marked out. Kidneys: both very large; surface smooth; capsule non-adherent. On section the pyramids were congested. The cortex, which was upwards of an inch in thickness, was somewhat pale, otherwise of normal appearance. Near the surface of the left kidney was a deposit of triangular shape, the base towards the surface, and of a yellowish colour, surrounded by a red halo. Under the microscope the kidney tubes contained much oil, chiefly in the epithelial cells.

HOSPITAL NOTES.

KELOID.

In our Hospital Reports for November 26, 1859, we recorded a case of keloid, which occurred in the cicatrix of a burn on the side of the neck. The boy is now 17 years of age, and the growth has increased in actual size, but not relatively to the general increase of size of the body. We first saw the patient six years ago at the London Hospital, under the care of Mr. Gowlland and Mr. Curling, and four years ago at St. Bartholomew's, under the care of Mr. Skey. Both these gentlemen removed parts of the tumour, but no radical operation was ever performed. The tumour is fully described in the report, and it now differs from what it then was only in size. The case was alluded to by Mr. Curling in the discussion that followed Mr. Longmore's paper on Keloid at the Medico-Chirurgical Society; and as several Surgeons have expressed a wish to hear more of the case, we again refer to it. Mr. Harle, of Islington, whose patient the boy is, has supplied us with much of the following information, and will be glad to

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furnish the boy's address to any one specially interested in keloid.

After the last operation, the remaining portion of the tumour appeared to continue of the same relative size, but, from its eventual increase, it appeared to increase by insensible degrees. After a time, in consequence of its increase, further advice was sought, and it was brought under Mr. Coote's notice. Mr. Coote was inclined to treat it as the cicatrix of a burn, it being, no doubt, the consequence of a burn, as is stated in the published report. Mr. Coote recommended pressure, and Mr. Coleman moulded a substance to enclose the protruding and jagged cicatricial tumour, directing the friends that the wound should be enclosed in leather, and the whole strapped down. This the friends, either from some neglect or inability, did not procure for a month or so, when, having obtained the leather and straps, they found that the tumour was too large for the mould; in fact, it had grown so that the mould was useless, and Mr. Coote's plan could not thus be tried, and, therefore, pressure cannot be said to have been unsuccessful. We mention it as showing the plan recommended by Mr. Coote in such a case. The tumour still very slowly increases in size. The patient has latterly made a mould of gutta-percha, which he thinks prevents its growth; but even this treatment is not receiving justice, since he removes the moulding while in the house. Mr. Harle, under whose care he now is in private, directed him to continue the moulding of gutta-percha, so as thoroughly to enclose the tumour, and to wear it constantly.

The disease in this case is the keloid described by Alibert, and differs from that described by Addison, in the fact that it grows in a cicatrix. But, as such tumours are very rare and cicatrices common, Mr. Longmore, in his paper referred to, asks if there is not a keloid constitution; and that the disease is produced in one by an irritation that does not affect another; and that in the keloid of Addison the disease is excited by an irritation so slight as not to attract notice. So that the diseased tendency is the same, differing only in the amount of irritation required to develop it. Slighter degrees of cicatricial induration are not uncommon in cases of burns, as in one we saw lately at one of the Hospitals. The cicatrix remained glossy, red, raised, and exceedingly irritable for months.

In a case recorded by Mr. Sedgwick in this Journal, Oct. 27, 1860, in a child four years old, there were seventeen patches, but none of them occurred in cicatrices, although there were scars of several operations. In this case, too, there was a keloid tumour on the tongue.

The question is important as regards operations. If there be a keloid constitution, and tumours will return in the cicatrix, it is of little use to remove them.

In one of Mr. Longmore's cases the disease followed flogging. A photograph of the back of a slave, which presented a very similar condition, was shown to us by Mr. Birkett, at Guy's, a short time ago. It was sold in a shop in the Strand, not as an illustration of pathology, but as a stimulus to philanthropy.

HEMIPLEGIA, WITH LOSS OF SPEECH— ITS ASSOCIATION WITH VALVULAR DISEASE OF THE HEART.

In our Hospital Reports for January 30, we reported some remarks by Dr. Hughlings Jackson on a series of cases of loss of speech, with valvular disease of the heart. There were several, however, in which this relation could not be made out; and since we have seen at Guy's Hospital, under the care of Dr. Wilks, a patient who has hemiplegia with loss of speech, and yet there is no trace of a bruit, and no other evident signs of valvular disease. Again, Dr. Hughlings Jackson has had under his care another case of valvular disease with hemiplegia, with no loss of speech; the patient is, on the contrary, very voluble. There is thickness of articulation; but this, as was mentioned in the report alluded to, is not what Dr. Jackson, for purposes of clinical illustration, has taken to be loss of speech.

It may be said by some, of the first case, that the cause was not embolism; by others, of the second case, that it was probably an instance of embolism of the middle cerebral artery, and yet with no loss of speech. But these cases present features as different clinically as they do physiologically; and if the physiological symptoms, from damage to a part of the nervous system, do not point to embolism in the first, and to apoplexy or softening in the second, the clinical associations do. Dr. Wilks' patient is a young woman, 27 years of age, who, in perfect health, was found by her husband when he got up hemiplegic and speechless; and again the hemiplegia, as in all Dr. Jackson's cases, was on the right side. So far, the case looks certainly like embolism; but the absence of cardiac disease, or rather of bruit to signify it, prevents the idea of that being its origin so plausible as in some of the other cases. In the second case, the hemiplegia is on the left side. The patient's age is 63. He has a large arcus senilis, movable arteries, but no albuminuria. There is a harsh, systolic murmur at the apex. A patient with such evidences of degeneration of the arteries is, of course, liable to softening and apoplexy, and thus to hemiplegia in the ordinary way. Then, too, although the attack was sudden, there was no loss of consciousness at the time.

The greater liability of the middle cerebral artery to be plugged on the left side—*i.e.*, of the vegetation to pass up the left carotid—is well known. This obstruction, of course, produces softening on the left side of the brain, so that the paralysis is of the right arm and leg.

We may state, too, that in looking over the first two volumes of records of Dr. Brown-Séquard's cases at the Hospital for Epilepsy and Paralysis, we found that hemiplegia occurred oftener on the left than on the right side. This, of course, makes the fact more striking, that hemiplegia occurs on the right side when it is attended with loss of speech.

In none of the cases can there be certainty as to the exact cause of the symptoms. We write these remarks chiefly to draw attention to the necessity of noting differences in speech in association with paralysis, and in the hope that at autopsies on patients who have died of cerebral disease, the local condition of the arteries, as well as their general disease, will be noted in connection with the life symptoms of the case.

BROMIDE OF POTASSIUM IN EPILEPSY.

Bromide of potassium is still a favourite remedy in epilepsy, and is much used at the Hospital for Paralysis and Epilepsy by Dr. Ramskill, Dr. Radcliffe, and Dr. Hughlings Jackson. The dose generally prescribed is about ten grains. This Dr. Radcliffe frequently gives at bed-time every night, but Dr. Ramskill and Dr. Hughlings Jackson generally give it three times a-day. The dose may be increased to twenty, or even to thirty grains. There can be no question as to its very great value in diminishing the number of fits, and it is certainly by far the best remedy in this respect. We have already reported cases in which it seemed to be of great benefit; but it is very doubtful whether it effects a cure. That it will keep the fits off for long periods, for months, or for a year, is quite certain; in many cases, however, the fits return when the drug is given up. We need scarcely say, that besides this specific treatment of the disease, the condition of the patient generally is carefully attended to. But any one may observe that, not unfrequently, epilepsy occurs in patients who are, except during, and for a short time, after the paroxysm, in good health. Here little else than specific treatment can be adopted. Probably, in such cases, there is some organic disease of the minute tissues of the medulla oblongata, or, as it is generally, but vaguely, expressed, the excitability of the medulla oblongata is increased. It is not likely that any drug will restore the damaged structures to their natural condition any more than it would thickened and contracted aortic valves; but it is quite certain that by treatment the fits may be kept off for very long periods. Again, and this is the next best thing to a cure, the patient's condition between the paroxysms is much improved. The bromide, it is well known, diminishes sexual appetite, and hence has been used in cases of epilepsy associated with masturbation. Its chemical congener, the iodide, has this property as well, but seems to have little or no influence on epilepsy. Again, the bromide, which is so useful on epilepsy, has, Dr. Brown-Séquard says, no influence over syphilis. This shows the truth of our remarks in reference to formiate of ammonia, that from chemical relationship we cannot indicate a therapeutical one.

THE HUNTERIAN ORATION.—It does not appear to be generally known, that this oration is now only a biennial affair. The last was delivered by Professor Gulliver; the next will take place in February, 1865.

ROYAL COLLEGE OF SURGEONS.—At the ensuing annual election of Fellows into the Council of this Institution, there will be at least three vacancies declared, caused by the death of Mr. Green, the resignation of Professor Gulliver, and the retirement in the prescribed order of Mr. Hancock, who will, however, offer himself for re-election.

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SATURDAY, FEBRUARY 13.

THE SURGEON-GENERAL OF THE U.S. ARMY.

The spectacle of a man, high in our own Profession, who has for two years been entrusted with the care of the bodies of more than half-a-million of men, standing arraigned before a court-martial on a charge of betraying his trust for filthy lucre, is a most melancholy one. The possibility of the charges being true is one that we scarcely like to contemplate. We can only say that, if it should be so, the rope or the bullet afford the only fit means of terminating such a career. But, from the knowledge which we happen to possess of the personal character of Dr. Hammond, against whom these grievous accusations are made, we venture to predict that he will pass the ordeal unharmed. As Surgeon-General of the United States' Army, he has had to support a vast weight of responsibility—more, perhaps, than his mental power was equal to; and in a machine of such enormous size and so great complication of parts, it was inevitable that, without, or, perhaps, even with, a man of first-rate administrative power to direct it, some things must go wrong. And many things undoubtedly have gone wrong: in plain words, there have been rogues in the Medical service of the United States, as in every other department of their public service; but we do not believe Dr. Hammond to have been one of them. His chief fault has been a want of decision, which sometimes prevented him from doing what he knew to be right from fear of the consequences; but, even in the atmosphere of corruption that has prevailed during the war at Washington, his reputation, so far as we know, remained free from taint. On the other hand, the frequent dissensions, and, at last, the absolute antagonism which were known to exist between himself and the Secretary of War, were notoriously of great detriment to the Medical service; but the opinion of the Medical officers in general was decidedly in favour of their own chief, and adverse to the overbearing, discourteous—and some said jobbing—Secretary Stanton. From this official, Dr. Hammond certainly did endure some affronts which would have caused many men to resign in disgust: most unfortunately for him his retention of office has resulted in a banishment from Washington of many months' duration, intended to be penal, and an enforced series of wanderings through the different seats of war. What effect the lamentable accident, which we recorded a fortnight ago as having befallen Dr. Hammond during one of these wanderings, will have on the result of the court-martial, we cannot tell; but it is evident that the inquiry must go on in some form or other; for a man, though a cripple for life, has still a right to his character. We can only hope that there will be some means of punishing the framer of the accusations if they should be proved untrue, as we doubt not they will be. The malignity which could suggest them ought to recoil on the head of the slanderer.

We hope to hear a public expression of the opinion of the Profession in America on this question. Dr. Hammond is not an unknown man: he owed his position in a great measure to the influence of the heads of the Sanitary Commission, among whom are some of the first names in our Profession in the country. They must surely have established a claim to be heard in a question of so great importance: the voice of the country, raised at their bidding, must prevent Dr. Hammond, if innocent, from being sacrificed, as others have been, to personal spite.

THE PROPOSED LEGISLATION FOR CHEMISTS AND DRUGGISTS.

The chemists and druggists have taken alarm at the proposed amendments in the Medical Act. The "trade" is in a high state of ferment; meetings are being held, resolutions passed, and petitions signed against what is called an infraction of their liberties, and an interference with the lawful exercise of their calling. As there are two sides to every question, and we believe that the interests of the Medical Profession are directly involved in a definition of the position and responsibilities of the dispensing chemist, we are compelled to notice some of the arguments advanced by the contending parties.

The first inquiry which presents itself is—What has hitherto been the position of a chemist and druggist? Is he a tradesman or a professional man? This is answered by the chemists and druggists themselves, who, at public meetings and in public documents, are constantly referring to their body as "the trade." If this be so, it may be well asked if the endeavour to impose restrictions on a trade be not contrary to the spirit of all recent legislation? As long as the chemist's business is simply a matter of buying drugs, compounding and selling them, it is an infraction of all free-trade principles to forbid any person who may choose to engage in it. It cannot be said that chemists and druggists are in an exceptional condition on account of the variety and amount of information they must possess. It would be very difficult to show that the standard of particular education required is higher than that necessary in many other trades; for instance, philosophical instrument making, watch and chronometer making, or bookselling and publishing. And this is more than ever the case now that the Pharmacopœia is in English, and the practice of writing the directions of prescriptions in English is becoming each day more general. In the preface to the Pharmacopœia the fact is asserted that the manufacture of most chemicals has been of late years transferred from the pharmaceutic chemist to the chemical manufacturer, so that the province of the former has become much contracted,—indeed, in by far the greater number of instances it is limited to mere dispensing. Now, it is a matter of daily observation that any intelligent, neat-handed lad or woman of ordinary education can be taught to dispense accurately and well in three months. Besides, if the amount of knowledge required by the pharmaceutical chemist is such as to make it incumbent on the State to examine him, his business is at once elevated from a trade into a profession, and the line of demarcation between him and the Practitioner of Medicine who keeps an open surgery is rendered proportionately more inappreciable in the eyes of the public. But this is not the argument generally advanced. It is said that Government are bound to impose restrictions on dispensers of medicines, because it is a *dangerous* trade; and instances of other trades in which articles dangerous to the public health are vended, are quoted as precedents. This argument, however, is entirely fallacious. Government has placed restrictions on certain articles of commerce, but it has not limited the class of persons who sell them. There has been no test imposed of personal fitness to engage in the traffic. The license required to be taken out by persons selling wine, spirits, tobacco, etc., although, on first appearance, a personal qualification, is, in reality, no such thing. It is merely another way of imposing a tax on certain articles of revenue.

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Licenses to public-houses, again, are procured, not for the protection of those who frequent them, but, as a matter of ordinary police, for the protection of those who do not. These instances belong, therefore, to another category. On free-trade principles, the selling of drugs must be as open to every Englishman as the trade in paraffin or gunpowder. The risk is for the purchaser, who, fully aware of it, chooses the shop at which he buys. The public has no more right for special protection against the ignorance and blunders of chemists and druggists than it has against the blunders of railway officials. If death or injury occur through wilful carelessness or culpable ignorance, the druggist is liable to be prosecuted for manslaughter, or to an action for damages; but so is every other person who, in his avocation, causes his neighbour loss of life or health. We are not now arguing for the abstract right or the universal application of the free-trade principle. We only assert that free trade is now the basis of all commercial legislation; and more, it is a principle which the Medical Act accepts, even with regard to the Profession of Medicine, for it expressly recognises "qualified" and "unqualified Practitioners."

Having said thus much on the general question, we must freely acknowledge that the above views are not held by many amongst the chemists and druggists themselves, and are certainly not shared by the committee appointed by the General Medical Council to draw up amendments to the Medical Act. There are three parties who are directly or indirectly competing for the power of examining chemists.

(1.) The Committee of the Medical Council propose that a section be added to the Medical Act, to the following effect:—

"It shall not be lawful for any person to keep open shop for the compounding of Physicians' and Surgeons' prescriptions, unless he be a Licentiate of the Apothecaries' Hall of England or Ireland, or shall have received a certificate of competency to compound medicine from either of the above bodies, or from the Pharmaceutical Society, or from some other body duly authorised in England, Ireland, or Scotland, by the General Medical Council, to institute the necessary examination, and to grant such certificate, and at such rate of fee as the General Medical Council, with the approval of the Privy Council, may sanction; and any person keeping open shop for the compounding of medicine, unless qualified as aforesaid, shall, upon a summary conviction for any such offence, before any justice of the peace, pay a sum not exceeding £20; and for the better protection of the public, and to ensure the carrying out of the provisions as aforesaid, it is hereby enacted that the Medical Council may appoint from time to time one inspector for England, one for Ireland, and one for Scotland, whose duties it shall be to inspect, as often as may be required, all shops where medicines are compounded, and to carry into effect the provisions of this Act in regard to such shops; and that such inspectors be paid such salaries out of the Consolidated Fund as the General Council, with the approval of the Lords Commissioners of her Majesty's Treasury, may from time to time determine."

(2.) The Council of the Pharmaceutical Society have hitherto acted on the principle, that the institution of a voluntary examination, for persons engaged in dispensing, is all that the exigencies of the public safety require. They do not appear to consider a compulsory enactment necessary, believing that the choice between a certificated and uncertificated chemist may be left to the public. It is said, however, that they will probably support the proposition of the Medical Council.

(3.) The Executive Committee of the United Society of Chemists and Druggists have issued suggestions for an Act of Incorporation of the trade. They propose—

"That the Act shall be based upon a recognition of all claimants to an interest in the trade of a chemist and druggist until six months after the passing of the said Act. That, after such date, it shall be incumbent upon all who enter the trade of a chemist and druggist to undergo an examination by a board of examiners duly appointed. That the examination shall be of the following order and kind:—1. Proof of having served an apprenticeship of not less than five years (exemption from this only to be allowed under special and well-defined conditions for otherwise securing the practical knowledge required). 2. Ability to read prescriptions with ease and accuracy. 3. A competent knowledge of all drugs in general use, with their doses."

Of the three sets of claimants to power, we must assert that the course hitherto carried out by the Pharmaceutical Society—a course which is legalised by their charter—seems to us to be the least objectionable. It is not imperative on any chemist to possess its certificate, but it is open to any one to obtain it; and once obtained, it is a public guarantee that the possessor has a fair knowledge of his business. If the public choose not to employ him, but to go to the grocer who sells aperient pills over the way, they do it at their own risk. The proposition of the Committee of the Medical Council, as it at present stands, seems open to several objections. We will mention three. In the first place, the Medical Act gives them no legal right to interfere with chemists. It is a gratuitous assumption of power on their parts. Secondly, it would, were their proposition carried into effect, introduce a large class of men, who are not Medical men, as legal practitioners of pharmacy, into the Medical Profession. This result may be disclaimed, but practically, in the eyes of the public, no one can doubt that such would be its ultimate effect. Who would distinguish between the licensed practitioner of pharmacy of the Apothecaries' Hall of England or Ireland and the licensed Practitioner in Medicine of the Apothecaries' Hall of England or Ireland? Thirdly, would it be in reality a protection to the public? We answer decidedly, no. Nine-tenths of the blunders in chemists' shops by which people lose their lives are made by assistants and shopboys, and no legislation can prevent chemists employing any servants they please. The proposition of the United Society of Chemists and Druggists is not open to the first and second objections, but it is entirely open to the third. Moreover, it is in too close accordance with the mediæval principle of legislation which gave special privileges to guilds and civic corporations, and is directly opposed to modern ideas of a commercial code. We repeat, the compounding of medicines is not a profession, but a trade, requiring no higher education than many other trades. The fact that some men of high intelligence and acquirements are engaged in it does not alter its intrinsic character. In professions, knowledge alone is sold; in trades, material. Society has a right to require that persons who offer for sale knowledge should previously afford some proof that they possess that commodity. The validity of their pretensions can only thus be estimated. But the case is different with those who sell material. The quality of the goods they offer is itself the criterion by which the trustworthiness and capacity of the vendors will be judged.

THE WEEK.

PARLIAMENTARY.

In noticing the proceedings of Parliament during the present Session, we shall follow the course we have heretofore pursued—that of confining our summary to such subjects of legislation or debate as have a direct or collateral interest for, or bearing on, the Profession of Medicine.

In the House of Commons on Friday, February 5, Mr. Fortescue, in reference to the case of Colonel Crawley, asked the Under Secretary for War whether he would lay upon the table of the House the proceedings of the late court-martial, together with the plans referred to in the evidence; and whether an opportunity would be afforded to members of the House of inspecting the models produced before the court-martial?

The Marquis of Hartington said that, in this particular instance, although it was not usual that the proceedings of a court-martial should be laid before the House of Commons for revision, if the hon. member moved for the production of the papers, they would be laid on the table. They would be accompanied by a plan, drawings, and correct measurements,

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which would enable hon. members to understand the proceedings. With reference to the models, he had to state that they constituted portions of the evidence on the record of the court-martial itself, and it would not, therefore, be convenient or desirable that they should be removed from the custody of the officer in whose charge they were at present placed.

On Monday, February 8, Mr. Fortescue moved an address to her Majesty for a copy of the proceedings of the late court-martial for the trial of Colonel Crawley.

General Peel asked the hon. member for Andover whether he intended to found a motion upon these papers; and if so, whether he would give early notice of its terms?

Mr. Fortescue said, that when the proceedings were produced he should make a statement upon them, and conclude it with a motion for papers. He would give early intimation what were the papers he intended to ask for.

The motion was then agreed to.

The Chancellor of the Exchequer moved for leave to bring in a bill to allow the making of malt, to be used in feeding cattle, duty free. He proposed, as the only restriction, for the purpose of protecting the revenue, that the malt used for cattle should be mixed with one-tenth of its weight of linseed meal or oil-cake. The debate turned on the comparative value of malt and barley as cattle food.

Mr. Bass said that he had received a letter from Baron Liebig, stating that the drying of malt, that is, of barley already germinated, instead of adding to its value as an article of food, would rather diminish it.

Mr. Caird thought that the member for Derby had unintentionally misled the House with regard to Baron Liebig's views, and read the following letter from the Baron:—

"Munich, July 6, 1863.

"In forming a judgment on the feeding properties of malt, when given to horses, cattle, and sheep, it is obvious that in comparing it with barley we must not lose sight of the fact that there is a larger amount of nourishment in barley than in the malt manufactured from it; for in the process of malting barley suffers a loss in weight amounting to from 7 to 11 per cent. of dry substance. The 'rootlets' constitute 3 to 3½ per cent. of this loss; and as they contain a pretty large quantity of blood-forming (nitrogenous) matter (25 to 30 per cent.), the grain, by their separation from it, undergoes a loss of one of its nutritive elements. Hence it is clear that if in practice the feeding qualities of malt are found to be greater than those of barley, this can only arise from the circumstance that the nutritive matter contained in malt is present there in a more soluble, more digestible state than in barley; and that, therefore, in feeding with barley, more nutritive matter leaves the body in an undigested state than in the case when an equal weight of malt is used as food. There can be no doubt whatever that in malt blood-forming matter is contained in a more soluble form than in barley; for the process of malting occasions a loosening of the component parts of the grain in so great a degree, that 100 volumes of dry barley yield (notwithstanding the loss of weight) 112 to 114 volumes of dry malt. Such a loosening of the inner parts of the grain, thus enabling the gastric juice in the animal body to penetrate it more easily and thoroughly, is not to be attained in a like degree by a mechanical process. The comparative analysis shows finally that the amount of readily soluble blood-forming elements in barley is 1½ per cent., and in malt 2·2½ per cent. By the process of drying in the kiln, a part of the soluble blood-forming elements is rendered insoluble, and from this it cannot add to the feeding capabilities."

The experiments hitherto made on malt as a cattle-food do not appear to have been on a sufficiently large scale to be conclusive. With regard to the restrictions proposed by Mr. Gladstone, most of our readers will agree with Mr. Bass, who said:—

"As to the mixing, brewers must be very much maligned, indeed, if they never put worse things in their beer than linseed. (Laughter.) Notwithstanding the progress of the teetotal principles advocated by his hon. friends behind him, and the general dislike to adulterations, he suspected there would be found plenty of labourers in charge of cattle who would be glad of beer from malt, even though one in ten of linseed were mixed with it. (A laugh, and 'Hear.')"

The motion was ultimately agreed to.

The same evening Sir G. Grey moved for leave to bring in a bill to amend the Act 3 and 4 of her present Majesty, cap. 54, relating to the care and treatment of criminal lunatics. Our readers will remember that this is the statute under which the reprieve of Townley was granted. After giving a full account of the existing condition of the law, with a minute review of the circumstances of Townley's case, and explaining and justifying the grounds on which he had acted, Sir G. Grey pointed out what he considered the great defect in the statute, viz., that it permitted its machinery to be set in motion, not by impartial persons, but by agents of the prisoner. The existing law provides that any two justices of the peace, with the aid of two Physicians or Surgeons, may certify as to the insanity of a prisoner; and on such certificate it is lawful for the Secretary of State to order his removal to a lunatic asylum. In the case of Townley, the two magistrates and the two Medical men were introduced into the gaol by the prisoner's solicitor, and signed the certificate at his request. Sir G. Grey proposes that, instead of any two justices of the peace, the responsibility of signing such a certificate shall be imposed on all the visiting justices of the prison collectively; and, instead of any two Medical men who may volunteer their services, the visiting justices shall be also responsible for the selection of the Medical men whom they employ to aid them in the investigation. Such Medical men—Physicians or Surgeons—selected by the visiting justices, must be registered under the Medical Registration Act. A special clause to this effect is introduced in the new bill, in consequence of Mr. Harwood, the Surgeon who signed Townley's certificate, not having been a registered Practitioner. Mr. Harwood, who is a Licentiate of the Society of Apothecaries of forty-three years' standing, is Medical officer to the Derby Union, but he has neglected to place his name on the register. On the question of the validity of the certificate signed by Mr. Harwood, however, Sir G. Grey referred to the Lord Chancellor, who gave a clear and unqualified opinion that Mr. Harwood was a Surgeon within the meaning of the Act. But the new bill has a still more important provision,—that the certificate of insanity signed by the visiting justices and Medical men shall not be necessarily final or conclusive. In reference to this point, Sir G. Grey said:—

"In the great majority of cases, no doubt, it will still be final. The certificate will be, not a mere surmise or suggestion to the Secretary of State, but the deliberate and recorded opinion, under the hands of the visiting justices, of the insanity of the prisoner to whom it refers. But by the insertion of words showing that it is not mandatory, but permissive, the Secretary of State, 'if he thinks fit,' will be able to institute further inquiries in any case before he directs the removal of the prisoner, so as to satisfy his mind, if he entertains any doubt, that the certificate is correct. If these alterations are made, I think effectual precautions will be taken against any such miscarriage of justice as may be thought to have happened in this case; and that the increased responsibility of the Secretary of State, and the new responsibility imposed on the visiting justices, will prevent any risk of the course of justice being improperly interfered with."

Sir G. Grey, in concluding his speech, defended the course he had pursued in commuting Townley's punishment to penal servitude for life, instead of carrying out the original sentence. He stated that, in thus acting, he had obtained the concurrence of the Lord Chancellor.

In the debate which followed, Sir G. Grey's conduct in the case was criticised by Mr. Macdonogh, Mr. Locke, and Sir G. Bowyer.

Mr. Macdonogh argued that, assuming Sir G. Grey was acting legally in respiting Townley on the ground of his supposed insanity, he had acted illegally in commuting his sentence when his sanity was established. He argued from the precedent of women condemned during pregnancy, who are respited until after their delivery, that the temporary postponement of capital punishment is no bar to its being afterwards carried into effect.

Mr. Neate suggested the appointment of a commission or

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committee that might bring together legal and Medical opinions, whereby the law on this difficult subject might be brought into a more satisfactory state.

Mr. Bright defended Sir G. Grey, and pronounced strongly against capital punishment, as opposed to the best and noblest sentiment of the best and noblest people.

Sir J. Packington expressed himself satisfied with the proposed amendments in the law, and with Sir G. Grey's general conduct in the case. At the same time, he thought the Government had committed a mistake in commuting the sentence on Townley, who had been been saved only by a juggle and a trick. By the very Act under which the reprieve was granted the punishment was revived, and justice ought to have had its course.

Leave was then given to bring in the bill.

On Tuesday, February 9, in answer to a question by Sir Fitzroy Kelly, Sir G. Grey stated that the papers connected with the Townley case, including the certificates of the borough magistrates and Medical men upon which Townley had been removed to the lunatic asylum, would be in the hands of members before he moved the second reading of the bill which he had introduced the previous night.

Sir F. Kelly obtained leave to bring in a bill to amend an Act of the Session of the 11th and 12th years of Her Majesty, cap. 78, to provide a further appeal in criminal cases, and for the further amendment of the administration of the criminal law.

On the first night of the Session, Mr. W. Ewart gave notice that on that day fortnight he should move for leave to bring in a bill to abolish the punishment of death. He also gave notice of a bill for legalising the use of the metrical system.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE II.—FEBRUARY 4.

PROFESSOR HUXLEY's second lecture was devoted to an account of the structure of the bones and muscles of the human hand and foot. The skeleton of the hand is divided, he said, into three regions, the carpus, metacarpus, and digits. The carpal bones are disposed in two rows, four in each, although the pisiform of the first row can hardly be looked upon as belonging to the group, but is rather a sesamoid bone of a muscle. The whole of the bones of the hand may be divided into two sets, a tridigital radial series, including the scaphoid, lunar, trapezoid, trapezium, magnum, and three first digits, and a bidigital ulnar series, including the cuneiform, unciform, and fourth and fifth digits. When the hand is viewed on its dorsal or palmar surface, a line drawn across the articulations of the four outer metacarpal bones with the carpus forms an obtuse angle with a line drawn in the plane of the carpo-metacarpal articulation of the pollex; this was characterised as the "digital angulation." When the distal articular surfaces of the lower series of the carpal bones are looked at, it will be seen that in this direction also the surface of the trapezium to which the metacarpal bone of the thumb articulates, forms an angle, which may be termed the "palmar angulation." It is to the direction and form of this articular facet that the thumb of man owes its peculiar opposability.

The movements of the different joints of the terminal divisions of the hand are flexion and extension in every case; at the metacarpo-phalangeal articulation alone, another motion, that of circumduction, is allowed, consequent upon the roundness of the head of the metacarpal bone. The muscles of the fingers may be grouped as flexors, extensors, and divaricators, the last pulling the digit out of the straight direction to one or the other side. The index-finger has nine muscles; three extensors—the extensor carpi radialis longior, inserted into the base of the metacarpal bone; the extensor communis digitorum; and the extensor indicis, the tendons of which unite, and are then inserted by two slips into the bases of the first and second phalanges. The flexors are also three—the flexor carpi radialis, inserted into the metacarpal bone, and the flexor sublimis or perforatus, and flexor profundus or perforans, inserted into the second and ungual phalanges respectively. The divaricators, or "flexor-extensors" as they might be called, are the two interossei and the lumbricalis. The action of these muscles is very important in producing the varied movements of the fingers. The interosseous muscle of the index-finger, situated to the radial side, belongs to the group called "dorsal;" the one on the other side is said to be "palmar." This distinction only refers to their mode of origin from the metacarpal bones, and is unimportant, as at their extremities they are on the same level, and they are inserted in precisely the same mode, viz., each divides into two tendons, one of which is inserted into the side of the base of the proximal phalanx; the other, more slender, passes upwards and backwards, and joining its fellow from the opposite side, is inserted into the posterior surface of the base of the distal phalanx, of which it is the proper extensor; thus, the two interossei of any given finger acting together, are flexors of the proximal, and extensors of the distal phalanx. This was pointed out and proved experimentally by Duchenne, in his work, "De l'Electrisation Localisée." One of the muscles acting separately, is a divaricator of the finger into which it is inserted. The lumbricales are also, to a certain extent, divaricators, and are flexors of the second, and extensors of the distal phalanges.

The number and nature of the muscles differ in every finger. The third digit has seven; the fourth only six—the extensor and flexor of the metacarpal bone, and the extensor proprius, found in the index, being absent. The fifth is the most abundantly supplied with muscles, having eleven in all,—three flexors, three extensors, three divaricators, and two special muscles, the flexor brevis, and opponens. The thumb has nine muscles, but very differently disposed from those of the index finger. There are three direct extensors (of one of these, the extensor ossis metacarpi pollicis, it may be noted that it sends a slip of insertion to the trapezium); there is but one long flexor; two divaricators, the abductor, and a small muscle unnoticed in English works, but described by Henle as "interosseus palmaris primus," arising from the trapezium and base of the metacarpal bone, and inserted into the extensor sheath; there is no lumbricalis; the special muscles are, flexor brevis, opponens, and adductor. Connected with the last-named muscle, there is often a fleshy bundle, having a tendinous origin from the head of the fourth and fifth metacarpal bones, which might be called "transversus manus." It is further to be noted in the hand, that all the direct extensors and flexors are long muscles, that is, they arise from the bones of the arm; and that there is no muscle coming from the ulnar side, with a tendon crossing the palm and inserted into the first metacarpal bone, like the peroneus longus in the foot.

In the foot the tarsal bones are seven in number, but not clearly divisible into a proximal and distal series. Like the hand, the whole skeleton of the foot can be arranged in a tridigital inner division, including the astragalus, navicular, and three cuneiform bones, and a bidigital outer division, containing the calcaneum and cuboid. The digital and plantar angles formed by the articular surface of the first metacarpal bone with those of the other four, is nearly as well marked as in the hand; but, in consequence of the axis of the metatarsal bones not being perpendicular to their articular facets, as in the metacarpals of the hand, the hallux is parallel to the other digits. The articular facet for the first metatarsal, on the entocuneiform bone, is nearly flat, having none of the peculiar saddle-shape of the corresponding surface in the hand. It is in consequence of this conformation of the bones, and not from the want of special muscles, that the hallux is unable to execute the motions of the pollex in man, and that the great apparent difference of the foot and hand arises.

The second, third, and fourth digits have each seven muscles, two direct extensors, long and short, two direct flexors, perforated and perforating, and three divaricators, the two inter-

ossei and lumbricalis, all having the same insertion as in the hand. The fifth toe has ten muscles, including the peroneus tertius as an extensor, and the peroneus brevis as a flexor of the metacarpal bone; a flexor brevis and an opponens, the last a distinct muscle inserted into the whole length of the metatarsal bone, though commonly ignored in anatomical works. The hallux has ten muscles, three direct extensors, including the tibialis anticus, which is inserted by a distinct tendinous slip into the base of the first metatarsal bone, as well as into the entocuneiform bone; one direct flexor; two divaricators, the abductor, and an inconstant "interosseus palmaris primus," and four special muscles,—the flexor brevis, adductor, transversus pedis (often rudimentary), and the peroneus longus. The hallux is thus provided with more powerful muscles for opposition than the pollex; but, in consequence of the fixity of the bone into which it is inserted, the function of the last-named muscle is not to adduct the toe, but to steady the leg in the upright position.

There remain yet to be particularly described the great flexors of the toes, the flexor digitorum longus or perforans, the flexor brevis or perforatus, the flexor hallucis longus, and the flexor accessorius. The arrangement of these in the sole of the foot is very complex, and varies so much that it is rare to find it perfectly alike in any two individuals; and, moreover, the descriptions given in the text-books of anatomy are altogether incorrect. Professor Huxley stated, as the result of his own dissections, that the tendon of flexor hallucis generally divides into two slips, one for the first digit, and the other, of varying size, passing to the two or three succeeding digits, and uniting with slips from the tendon of the flexor longus digitorum and the accessorius, but that it had never been observed to furnish any part of the tendon of the fifth digit. The details of these arrangements in several individual cases were described, illustrated by preparations and drawings.

FROM ABROAD.—PROFESSIONAL ADVERTISING IN THE LAST CENTURY—EFFECT OF OXYGEN ON ANIMALS—PRODUCTION OF URIC ACID DIATHESIS BY COLD WINDS—EATING THE FLESH OF A MAD DOG.

PROFESSIONAL puffing and advertising is not a vice of recent creation; and in an interesting series of papers, publishing by M. Guardia, an account is given of its practice by one of the celebrities of the last century. Lecat, a famous Surgeon of Rouen, more admired by his contemporaries than by posterity, was tormented by excessive thirst for renown, and did not always stick at trifles in order to achieve it. One of his procedures, however, brought him under the notice of the Academy of Surgery, of which he was a corresponding member. It was ascertained that certain placards were distributed about the town of Lille, announcing to all those who were desirous of undergoing operations, that the celebrated Rouen Surgeon was about to arrive there on a visit for nine or ten days. All those suffering from diseases admitting of operative interference, whether rich or poor, were invited to submit themselves to an examination by M. Vandergracht, who would decide whether their cases were suitable ones, and in that case administer the requisite preparation. This preparation consisted in preliminary bleedings, purging, and dieting, and in some cases the establishment of an issue. It was also stated that Lecat would perform all operations except lithotomy; but as this operation was just the one for which he was most famous, its omission seems strange enough, until we learn that his friend Vandergracht, who was to make all these preliminary examinations for him, was himself a famous lithotomist at Lille. The Academy of Surgery instituted some inquiries concerning the authorship of these placards, which nominally purported to have been issued by the clergy and magistracy of Lille. However suspicious was Lecat's connexion with them, nothing could be proved, and no action was taken by the Academy. Lecat, however, becoming aware that the matter had been discussed, addressed a long and indignant apology or protest to that learned body, which in point of fact was tantamount to an admission of his knowledge and approval of the issue of the placards. He exhibits, indeed, far less anxiety in denying this, than vanity in relating the costly testimonies of approval he had received during his visit to Lille. Certain it is, that at the present day so great an offender would not be let off so easily. In the same year, 1755, the Academy of Surgery severely reproved other members for advertising their operations in the newspapers of the day.

MM. Demarquay and Leconte have just communicated to the Academy of Sciences a portion of the results of the researches they have been prosecuting, with respect to oxygen, for some years past. The present communication only relates to the experiments, which were performed in great numbers, on animals, before proceeding to study the effects of oxygen on man in health and disease. From these experiments it results, that dogs are able to respire, during a long period, thirty or forty litres of oxygen and more, the only effect of the inhalations being to render the animal more lively and to increase his appetite. Large wounds were also made in the axillary region, and, when these were in process of cure, the dogs were submitted to the action of the oxygen. The wounds were then observed to become brightly injected, and a transparent serosity flowed from their surface, and, as the inhalation was continued, a great number of small petechiæ, or ecchymoses, were produced. The oxygen thus exerted a powerful influence upon the wounds, and it became of interest to ascertain whether the same results would be produced by its injection into the venous system. A series of injections of the external jugular vein were practised, and the same results were obtained. Great care is required in making the injection, or the animal is killed by distension of the right cavities of the heart, with the presence of frothy blood in the branches of the pulmonary artery. It is a curious fact, that a large quantity of oxygen may be easily injected into the venous system, by taking the vena cava below the liver, or the vena porta, as the seat of the experiment. Nearly two litres may be here injected without killing the animal, and without the venous blood undergoing modification of colour. The spleen alone, as if it were an organ of hæmatosis, assumes a scarlet colour, all the abdominal veins becoming turgescent, just as if, under the influence of the oxygen, the mass of the blood were increased. The experiments of Beddoes, Broughton, Regnault, and Reiset had already shown that animals can live a long time in an atmosphere of oxygen; but the modification undergone by the blood and the economy have been but imperfectly studied. From our authors' researches it results,—1. That rabbits have lived from fourteen to seventeen hours in an atmosphere of oxygen. 2. After death the muscular system of these animals was found extremely turgescent. 3. Contrary to the opinion of Broughton, the venous and arterial systems retained their natural colour. 4. Contrary to the assertion of Beddoes, no organ, however vascular it might be, was ever found the seat of inflammation or gangrene. 5. The muscular system assumed an entirely peculiar rose-colour.

In a communication to the Paris Medico-Practical Society, M. Mercier observed that at this period of the year, when the wind blows from the north-north-east, the functions of the skin suddenly diminish greatly in their activity. The acid and ammoniacal principles of the economy no longer find it freely open for their elimination, and, being still elaborated by the digestive organs, they exist in excess. The first effect of this alteration of proportions is observed in the stomach, as exhibited by laborious and irregular digestion, and the sudden production of intestinal gas—in a word, by acid dyspepsia. So, too, the secretion of urine is disturbed, presenting a brownish colour with brick-dust deposits, and attended with acidity on excretion. This altered condition is explained by the excess of uric acid, and especially of urate of ammonia, in the urine, the kidney endeavouring to supplement the arrested function of the skin. If this condition of things

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persists, the bladder is maintained in a constant state of irritation by these acid and saline compounds, and first its functions, and then its tissues, become affected. First, painful micturition, and then an inflammatory condition of a chronic character, from the first are, therefore, of frequent occurrence at this time of the year. Another period of the year is also eminently favourable to the production of these accidents, viz., that of excessive heat, during which the urine reaches the bladder in a state of great concentration, the acid elements not being diluted with a large proportion of water. But, then, copious perspiration removes from the economy a large quantity of the compounds capable of acting on the bladder. It is not, therefore, during the burning days of July and August, but in the presence of cold, especially dry cold, and during the north-east wind (during which meteorological condition the functions of the skin are entirely paralysed), that chronic urethro-cystitis commonly prevails.

M. Decraix, a Veterinary Surgeon, after detailing to the Academy of Medicine some cases in proof that rabies in the dog is not infrequently spontaneously cured, relates what seems to us a somewhat absurd experiment performed upon himself. Desirous of showing the impunity with which the flesh of animals dying of rabies may be eaten, he swallowed, on November 25 last, a piece of the raw flesh of a dog which had just died from rabies; and, on November 29, he ate two morsels of roasted flesh of a mad dog. Believing that such flesh might be eaten with perfect impunity, he thought no more of the matter until, some days after, he read an account of some cases in which the disease had been transmitted by eating the flesh of animals who had suffered from it. He then became somewhat alarmed, and immediately perceived a feeling of constriction of the throat, and a notable change in the voice. Under the influence of distractions and constant occupations, these sensations disappeared, but they showed themselves again whenever he was inactive, or when his thoughts reverted to his experiments. He mentions the subject as an example of how the imagination and preoccupations may exert an influence in developing symptoms resembling hydrophobia. We wish this foolish person had informed us what useful conclusion can be drawn from the negative result of his experiment; at most it only proves his own insusceptibility, but supplies no security for imitators.

THE REPORTED DEATH OF DR. LIVINGSTONE.

The report of Dr. Livingstone's death at the hands of the natives on Lake Nyassa has excited so general a regret, that we cannot refrain from calling attention to particulars which will enable our readers to judge for themselves how far this report is likely to be true or unfounded.

It appears that Dr. Meller, the Surgeon and naturalist of the expedition, with two of the missionaries, the Rev. L. J. Procter and the Rev. Henry Rowley, were, on their way out of the country, at Quilimane at the beginning of last November. The Governor of that place told them that, two or three days before their arrival, he had received a letter from the Governor of Senna, stating distinctly that Dr. Livingstone and all with him had been murdered by the natives on Lake Nyassa, but not saying upon what authority he made that statement. At first, Dr. Meller and his companions were inclined to believe this report to be true; but another report prevailing, before they left Quilimane, to the effect that Livingstone had been but wounded, and brought down to the mission station on Mount Morumbala, and no authority whatever for that report appearing, they could not help thinking that the first report was equally untrustworthy. Still, there was some reason, from the small force Livingstone had with him, and from the character of the Lake natives, to fear that the sad tidings might prove too true.

After receiving his recall, knowing he could not get his ships down the rivers until the end of the year, Dr. Livingstone resolved to do his best to explore the north end of Lake Nyassa. The departure of Dr. Kirk—who had ever been his right hand—and Mr. C. Livingstone, with four of the European crew, had left him very short-handed. Those that remained to him were barely sufficient to get the ships into proper order by the time it was needful to make the descent of the rivers. There was also great difficulty, owing to the famine which had prevailed, in getting supplies for the journey, and a suitable number of native attendants; and, added to all this, the Doctor himself was not equal to what he once was; long and severe anxieties had depressed him,—a recent attack of dysentery had greatly weakened his body,—and it was felt by those about him that the journey he contemplated was at best but a desperate venture.

He, however, was not anxious as to the issue; he knew the natives were mischievous, having been in some danger of being cut off by them in 1861; but he thought that with his boat he could readily get out of their way if they proved troublesome, and, to use his own words, he trusted in that Providence which had hitherto protected him.

From the first his journey was not auspicious. The waggon carrying his boat hopelessly broke down, and the boat itself, after it had been carried on to the Upper Shire by the natives living about the mission station at Chibisas, was—Dr. Meller learnt, from a letter from Mr. Young, the officer in charge of the *Pioneer*—ultimately lost over one of the cataracts. Then the Doctor, with the five Makololo who had formed his boat's crew, appears to have continued his journey on foot. And the next thing heard is the report of his death. In all this there seems ground for supposing that the report may be true; but it is singular that so important an event as the murder of an Englishman should have been kept from the knowledge of the English themselves—that those at Matiti, the first of the Murchison cataracts, and Morumbala, should have had no information of it; and from the fact that they knew Dr. Meller and his companions had not left the ship, and had time to communicate with them, and did not, we may infer that they had not received it. The last news from Matiti reported all well with the expedition up to the beginning of October. The last news from the missionaries reported all well up to October 11; should the report, therefore, have reached them, it must have arrived a day or two after that date. The Portuguese have better means of getting information than the English; but as Matiti is 200 miles nearer Lake Nyassa than Senna, and lies in the direction the reporters must have travelled, and Morumbala is but twenty miles from Senna, it seems really improbable that the English at these places should not have received, if it were true, information so important to them; and it is equally improbable that, if they had received it, they would withhold the intelligence from those who were leaving the country.

Of the value of Dr. Livingstone's discoveries and labours in East Central Africa no fair estimate can yet be made; the future will settle that. He has not accomplished all that was hoped from the expedition, but his recall may lead many to suppose that he has failed more signally than is really the case. The first objects of the expedition were, it is true, never realised; we know but very little more now of the highland regions of the Zambezi around the Victoria Falls than we knew before the expedition started; the navigation of the Lower Zambezi has not proved satisfactory; the Kebrabasa Rapids have been found impracticable; and many fond hopes respecting the commercial prospects of the country have been dispelled; but in other directions new countries have been opened to our knowledge. Of the Shire highlands and the regions around the lakes, Shirwa and Nyassa, we know much. It is true these countries may not prove so excellent as at first thought—their capabilities may be far less, and their difficulties far greater than Dr. Livingstone imagined them; yet it would be premature and unwise to condemn them as unfit for European residence,—as altogether barren of good; for, from all we can see, they have never really yet had a fair trial.

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Some valuable lives, it is true, have been lost, and much suffering has been endured by the surviving missionaries, but these casualties have been the result of circumstances which, we should imagine, would be not likely to recur. The deaths were occasioned by the malaria of the valley, and a really healthy site has never yet been occupied in the highlands; for Magomero, the first mission station, was, without doubt, from its position being so much lower than the general surface of the plain in which it is situated, the most unhealthy spot that could have been chosen. Those who have seen these highlands are of opinion that, in the best situations for salubrity of climate and general suitableness, there are few or no places so suited for European residence in tropical Africa. The great drawback to a life of comfort in these regions is, of course, the fever to which Europeans are exposed. It is not, it is true, certain that the severest form of fever does not prevail upon these elevated plateaux, but there is strong reason for supposing that, if the rivers were avoided during the unhealthy season, the malignant type would be rarely developed upon them. No doubt much has yet to be learned respecting the treatment of fever. Its manifestations vary almost with the people who take it; the ordinary remedies repeatedly fail; and to some extent its treatment appears hitherto to have been empirical. But with all this there are compensations, in the climate of these highlands, and in escaping many sicknesses to which one is exposed in other lands; and were the coast entrances less jealously closed, and were the Portuguese Government really disposed to put an end to the traffic in slaves—a traffic which causes discord and misery wherever it is carried on—there can be little doubt that Livingstone, by making known these regions to the civilised world, has opened up a fair field for philanthropic effort, if not for commercial enterprise. We trust that ere long we shall learn that the sad report respecting him is unfounded and false, and that he will safely return to his native land to enjoy that repose and honour to which, by his long and heroic efforts, he is fairly entitled. By the March mail, if not before, we may expect to have definite intelligence from the Zambesi.

Society for Relief of Widows and Orphans of Medical Men in London and its Vicinity.—A half-yearly general meeting of the members of this Society was held on January 27 last; T. A. Stone, Esq., the President, in the chair. It was announced that the petition for a royal charter of incorporation was before the Queen in Council, which would reconstitute the Society on a firmer basis than heretofore. The accounts for the year expired were read, when it appeared that a rather smaller amount of relief had been expended than during the preceding year, being as follows:—Grants for ordinary relief to widows and ophans, £1843 10s.; grants for immediate relief, £21; grants towards self-maintenance of adult orphans, £20; grants for extra relief, £20; grant by general meeting to a widow, £25. Total, £1929 10s. The following gentlemen were elected officers and directors for this year, viz.:—*President*—Thomas Arthur Stone, Esq. *Vice-Presidents*—Martin Ware, Esq., Everard A. Brande, Esq., Peter M. Latham, M.D., John Bacot, Esq., Thomas Turner, M.D., D. Henry Walne, Esq., A. J. Sutherland, M.D., F.R.S., Edward Tegart, Esq., George Burrows, M.D., F.R.S., John Miles, Esq., Sir John Fisher, Cæsar H. Hawkins, Esq., F.R.S. *Treasurers*—James T. Ware, Esq., G. Hamilton Roe, M.D. (Acting), Richard S. Eyles, Esq. *Directors*—J. C. Salisbury, Esq., Henry Blenkarne, Esq., T. King Chambers, M.D., John Clarke, M.D., Prescott G. Hewett, Esq., John Morgan, Esq., J. Gregory Forbes, Esq., William Munk, M.D., Barnard W. Holt, Esq., Charles Miles, Esq., W. J. Little, M.D., William Cathrow, Esq., Henry Sterry, Esq., Alder Fisher, Esq., Henry Jeaffreson, M.D., James Paget, Esq., H. S. Illingworth, Esq., Francis Hawkins, M.D., Thomas Hammerton, Esq., John Love, Esq., H. A. Pitman, M.D., John Adams, Esq., R. Druitt, M.R.C.P.L., Edward Tegart, Esq., jun. We would again remind our readers of the advantages to be gained by becoming members of this Society. They may do so by applying to Dr. Merriman, the Secretary, before March 2 next, as directed in our advertisement column.

EXAMINATION AT THE ARMY MEDICAL SCHOOL, ROYAL VICTORIA HOSPITAL, NETLEY.

(From February 1 to February 6, 1864.)

A.—WRITTEN QUESTIONS.

I.—Hygiene. (Dr. E. A. Parkes, F.R.S.)

1. What are the special circumstances in the life of the soldier at home which are unfavourable to health? Enumerate the chief diseases causing admission into Hospital, and mortality. How would you prevent the development of these diseases?

2. What are the effects of the inhalation of sewer-air? State the various means of removing sewage from dwellings. What are the principal disinfectants of air and sewage?

3. What are the general principles of clothing? Describe the accoutrements of the infantry soldier of the line, and discuss their effects on health.

II.—Military Medicine.

(Deputy Inspector-General W. C. Maclean, M.D.)

1. Phthisis pulmonalis being a fatal disease in the army, you are required to give (*a*) its place in the official classification of diseases; (*b*) the causes which appear to operate in its production and propagation in the army; (*c*) the most judicious means of counteracting them; and (*d*) the symptoms, constitutional and physical, of the first stage, assigning to each its diagnostic value.

2. Define leucæmia, and give (*a*) the causes which appear to induce this condition; (*b*) its diagnosis; and (*c*) the most rational treatment.

3. Give an accurate definition of dysentery. Describe the symptoms and treatment (*a*) of the sthenic, and (*b*) of the scorbutic types of this disease.

III.—Military Surgery.

(Deputy Inspector-General T. Longmore.)

1. Enumerate the several varieties of wounds of the head which may be caused by musket bullets, specifying the chief features which distinguish them from each other, and the influence of these features on your prognosis. Sketch, generally, the treatment to be adopted in each variety, and particularly mention what circumstances in any case would induce you to resort to the operation of trephining.

2. Give a description of the nature and consequences of endostitic inflammation, or osteo-myelitis, as observed after gunshot injuries of bones of the extremities, or after amputations consequent upon them; the treatment you would adopt; and the reasons for your practice.

3. A soldier is reported, by the Instructor of Musketry, to be incompetent for rifle-practice on account of defective vision, the nature of the defect being unknown. You are required to state whether the man's vision is defective or not; and, if it be so, to name what defect it is. On examination, the man is proved to be neither myopic, hypermetropic, nor presbyopic; but is found to be amblyopic. Describe the course of optical examination by which the diagnosis in this case is arrived at, explaining what sources of fallacy may be met with in the successive steps of the examination, and by what means you guard against them.

IV.—Pathology. (Dr. W. Aitken.)

1. Name and define, as concisely as possible, each of the several forms of continued fever which can be clinically recognised; and describe the anatomical signs which are peculiar and characteristic of typhoid and typhus fever on examination of the body after death from these diseases.

2. Mention the usual temperature of the body at completely sheltered parts of the surface (say axilla), and give a concise account of the value or significance attached to continuous thermometric observations in cases of acute diseases.

3. Mention the circumstances under which you would expect cases of (so-called) pyæmia or phlebitis to occur; explain the nature of such cases, and their post-mortem appearances.

B.—PRACTICAL EXAMINATION.

I.—Hygiene. (Dr. E. A. Parkes, F.R.S.)—(*First day.*)

1. Examination of water: its physical character; determination of amount of chloride of sodium and organic matter contained in it.

2. Examination of water: temporary and permanent hardness; amount of lime.

3. Microscopic examination of adulterated flour.

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(Second day.)

1. Examination of adulterated beer.
2. Examination of adulterated milk.
3. Microscopic examination of adulterated coffee.

II.—Pathology. (Dr. W. Aitken.)

1. Examination of fluid containing parasitic remains.
2. Examination of morbid tissues.
3. Description of morbid specimens from the Pathological Museum.
4. Give the names of the parasites on the table.
5. Determination of the powers of lenses.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF LYNN.

(Continued from page 158.)

PRACTICE OF THE HOSPITAL.

Prevailing Diseases in the Hospital.

No accurate records have been kept that would enable me to speak on this head with certainty. The Medical cases are generally of the subacute kind, and the Surgical are accidents, cases admitted for operation, and ophthalmic cases. In the year 1862, patients to the number of 344 were admitted, and this is a fair average; about 60 of the patients admitted were sufferers from accidents.

Operations.

No tables have as yet been kept in reference to the number and character of operations performed. I may mention that lithotomy is a much less common operation here than at Norwich. The cases during the past twenty-five years have averaged 2·36 per annum.

Surgical Mortality.

Reliable statistics on the Surgical mortality are also wanting, but I gathered that it was extremely low: only one death from pyæmia had occurred in the course of five years; that death had followed on excision of the knee-joint. For the past three years the operations have averaged twenty per annum, the deaths three.

Chloroform.

Chloroform is administered, as in the Norwich Hospital, in the most simple method, usually on a piece of linen funnel-shaped, or with a handkerchief. Great care is taken to allow the free admixture of air. To secure this object, the hands are placed underneath the handkerchief, so as to lift it a little distance from the face. There has not as yet been a fatal case. The number of administrations since the introduction of anæsthesia into Surgery has not been less than 900.

New Points of Practice.

Chromic Acid as a Caustic.—Dr. Lowe, one of the Surgeons to the Hospital, has of late been employing, and with success, chromic acid as a caustic, in cases of indolent ulcer and in epithelioma and cancroid growths. I am indebted to Dr. Lowe for the following report on this interesting subject:—

"The action of chromic acid on diseased tissues is peculiar, and differs widely from that of every other caustic, though quite consistent with its known action on animal structures. There is for some time no discharge or offensive smell from the sore. The tissues seem merely killed and dried up to a depth varying with the length of time during which the acid has remained in contact with them. After five or six days, a line of demarcation begins to appear between the living and dead parts, followed by a small amount of suppuration around the outer margin of the sore. At the expiration of eight days, or longer, the slough may be enucleated by gentle traction with a forceps, leaving a clean, dry surface, from which fine healthy granulations soon make their appearance after the application of water-dressing. If the whole of the diseased structures are not destroyed by the first application, the process may be repeated as often as is deemed requisite. In epithelioma, it is not necessary to produce a deep eschar, and the acid should, therefore, be merely applied for a few seconds before it is washed off with water. One case of this nature, occurring in the tongue, and causing a loss of a fourth of its length, well illustrates the action of the acid. The patient was a female, aged 65, very feeble and emaciated. The ulcer was deep and malignant-looking, and there was enlargement of the submaxillary glands, with acute lancinating pains. Any operative procedure was evidently out of the question. The solid acid was applied altogether six times. The first two applications were entirely free from pain, after which the sore began to granulate and assume a healthy aspect for a few days; but the granulations broke down, and the ulceration again extended. The acid was repeated, but with smarting pain for a minute or two, which subsided on washing the mouth with cold water. As the surface became more healthy, the pain from the acid increased. After the sixth application, cicatrisation was complete, and the glandular swelling disappeared. The only medicine she took was liq. arsenicalis, ♏v., bis die. At this date, a year and a-half afterwards, the cure remains complete.

"In several cases of obstinate cancroid sores the acid has produced speedy cicatrisation. One case in particular, which had resisted treatment for a year and a-half when it came under my care, was perfectly closed on four applications. The sore was situated about the middle of the thigh, directly in the line of the femoral artery. The cure, however, could not be said to be complete, as a firm, deep, indurated mass remained, which showed no tendency to disappear under treatment, and which I, therefore, excised, with a wide margin of sound tissue, and speedily obtained union, which has remained in a satisfactory state up to this time.

"I have never used the acid in large cancers, as I do not as yet recognise the propriety of interfering with them by such means; but I believe it would be the best caustic to make use of where such interference is deemed proper. It would be found to destroy the diseased structures probably to a greater depth than any other, with less pain and without much offensive discharge.

"Hitherto, with the single exception above mentioned, I have had reason to be satisfied with its action. It seems more disposed to affect diseased than living tissues, and shows no disposition to cause ulceration; but, on the contrary, its use is always followed by healthy granulation.

"The acid may be applied either in the crystalline form or as a fluid derived from the deliquescence of the crystals. I have generally made use of it in the solid state whenever it has seemed desirable to produce a deep eschar. The mode of application is simple: the crystals are taken up on the end of a feather, and placed on the affected part, where they soon dissolve. It is seldom necessary to take measures for confining the acid, but if any of it runs down over the sound skin it should be wiped off with a bit of lint. If, however, it is desired to produce a very deep eschar, this may be readily effected by surrounding the part to be operated on with a ring of gutta-percha, which may be stuck to the skin by heating the lower rim in a candle. The crystals of chromic acid may be placed in this to the required depth, and allowed to remain for ten or fifteen minutes, when the whole should be removed, and a piece of wet lint applied. Ordinarily, I find that the application, if only made for half a minute, suffices to produce a slough one-eighth of an inch thick. In slight cases the deliquesced acid may be used."

The effects of chromic acid and of the bichromate of potassa have recently been interestingly illustrated in the researches of MM. A. Chevallier and Bécourt. These investigators have shown that such is the destructive power of the bichromate over the tissues, that the workmen in the bichromate manufactories, on inhaling the dust, lose, as a general rule, the whole of the septum of the nose. They are also attacked at times with violent itchings, followed, if they are badly protected by clothes, with suppuration and ulceration of the moist surface of the penis, around the glans. The researches show that for a chromate to exert its action there must be a moist surface, and they indicate that the caustic or destructive power of the salt is due to the chromic acid. There can be no doubt, therefore, that in chromic acid we have a body which more rapidly than any other would destroy morbid growths in cases in which it could be applied to a moist surface. I would, however, remark, as an intimation of a possible danger, that the observers to whom I have referred above have received reliable information, that on inferior animals the destructive process set up by the chromate salt goes on rapidly spreading, causing denudation of the hair and extensive ulceration; so that in the case of a horse that had been exposed in one of its hinder feet, suppuration progressed, extending through the limb, and invading almost the entire half of the body of the animal, as though a veritable metamorphosis of the cutaneous tissues of the flesh altogether had been set up, as by fermentative action. This animal died one month after the commencement of the malady.

In Dr. Lowe's hands, chromic acid applied to the human

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subject has produced none of these dire effects. The destruction of tissue has not spread beyond due bounds: but in rapidity and effectuality of action to the extent required of it, it has answered admirably, and deserves to be extensively tried.

THE HOSPITAL MUSEUM AND LIBRARY.

A pathological museum has recently been opened in the Hospital, and, although it is still very small, it contains some interesting specimens. There is a good preparation of an excised elbow-joint, showing firm fibrous union, the case being the first in which the operation of excision was performed in the provinces. The late Dr. Cotton, of Lynn, was the operator. There is a most perfect specimen of calculus of the kidney, weighing 366 grains, the shape being fully retained. There is a complete fibrinous cast of the uterus and vagina; and a preparation showing a strangulated hernia, and so fitted up that the position and course of the strangulated bowel is seen from the inner surface of the abdominal wall. It struck me that for teaching purposes a preparation like this would be of immense service. I think the dullest student could be made to understand from it the mechanism of hernia, and the methods of cure both by the taxis and by the knife.

The Library is small, but is improving; the works are mainly of modern character, and are all essentially of a practical stamp.

THE MEDICAL STAFF.

There is one Physician, two Surgeons, and one House-Surgeon attached to the Hospital. Dr. Hawkins is the Physician, and T. M. Kendall, Esq., and Dr. Lowe are the Surgeons. C. S. A. Atkinson, Esq., is the House-Surgeon. His Royal Highness the Prince of Wales is Patron of the Hospital.

CHARITABLE AND PAROCHIAL INSTITUTIONS.

The poor of Lynn are well provided for by three charitable institutions—the Institution for Lending Child-bed Linen to Parturient Women, the Society for Visiting and Relieving the Sick Poor, and the Clothing Institution. These largely relieve the Union Workhouse, and, without ostentation, do much good. The Visiting Institution has been of late years very instrumental in introducing various important sanitary reforms into the houses of the lower classes.

The Workhouse contains 206 inmates, but it is built to receive 468. The sexes are nearly equally divided. Gas is introduced into every room, and good ventilation is secured by openings in the ceilings which lead to the turrets of the building. There is a school containing forty-six boys and forty-six girls, and an excellent infirmary. There are two other features in this house to which I must refer:—1. The chapel is one of the most beautiful I have ever entered in any building, much less in a workhouse. 2. A Turkish bath has been erected in the house, and proves of great service both to the sick and the healthy. The introduction of the hot air bath supplies a practical hint for workhouse management everywhere, and one which the Medical officers of these institutions should bear in mind. Mr. Kendall, the Medical Officer to the Lynn Workhouse, has the merit of first introducing the hot air bath for the benefit of the poor, in the manner described.

Parochial and Club Practice.

The sum of £213 was expended in the year 1861-62 for Medical attendance on the whole of the poor of Lynn. This does not include £57 12s. for vaccination fees. It is impossible to estimate the sum yielded per case, but it must be ridiculously small. The area in acres is 4840. There are three Medical officers to the district—H. Smythe, Esq., Dr. Hunter, and T. M. Kendall, Esq.

Club practice is rather extensively carried out. The members pay for Medical attendance 4s. a head per annum as a general rule.

LITERARY AND SCIENTIFIC INSTITUTIONS.

The Athenæum is the principal literary institution in Lynn. It is a handsome, well-arranged building, with an extensive museum, which, like that of Norwich, is specially rich in specimens of English birds. The classification of the specimens has been conducted with excellent scientific judgment and taste by Dr. Lowe.

THE SANITARY CONDITION OF LYNN.

The town, since the year 1853, when Mr. Lee made an official sanitary inspection, has undergone very great improvement. There are, nevertheless, certain great works yet to be accomplished before the town is either fair to the eye, or safe from telling and avoidable causes of death.

Population.—The Census returns of 1851 and 1861 indicate a remarkable fact in regard to Lynn—viz., that in the decennial period the population has declined in numbers from 20,530 to 16,701. This estimate is a little different from that rendered by local calculations made in, and confined to the borough; but the difference does not affect the general question. The population of the two great parishes of which the borough is composed—viz., St. Margaret's and South Lynn—was less in 1861 than in 1841, in the proportions given in the following table:—

Population of the Borough and its Parishes in every Census yet taken (the first four from White's "Norfolk").

	1801.	1811.	1821.	1831.	1841.	1851.	1861.
St. Margt.	9,395	9,319	10,647	11,424	12,617	14,417	11,470
S. Lynn .	707	940	1,606	1,946	3,522	4,731	4,511
Total .	10,096	10,259	12,253	13,370	16,039	19,148	15,981

It is natural and very proper that the inhabitants of Lynn should ask for the reason of this curious fluctuation; and, indeed, the question involved is of importance to vital statists generally. An English town that does not grow in twenty years must surely be in an abnormal state beyond compare. I am fortunate in having, in explanation of this phenomenon, a report made on the 4th of May, 1861, by Mr. John J. Coulton, the Superintendent Registrar of Lynn. Mr. Coulton says:—

"It will be seen that the population in 1861 is less by 3167 than it was in 1851, and by 58 than in 1841. The number of inhabitants temporarily absent (at sea and otherwise) in 1861 is computed at 436, and the number of visitors and others temporarily present at 228, showing a balance of 208 in favour of the population. These proportions probably do not materially differ from those in 1841.

"The excess of births over deaths from 1st April, 1841, to 30th March, 1851 (both inclusive), was 1422. As the increase of population during nearly the same period was 3109, it follows that 1687 strangers must have come into Lynn during that period.

The excess of births over deaths, from 1st April, 1851, to 30th March, 1861 (both inclusive), was 1362. As the decrease of population during nearly the same period was 3167, it follows that 4529 persons must have left Lynn during that period.

"Assuming the excess of births over deaths to have been in the same proportion during the ten years from 1831 to 1841 as in the ten years from 1841 to 1851, the natural increase of population in the first-mentioned ten years would be 1185. As the actual increase of population was 2669, it follows that 1484 strangers must have come into Lynn during the period.

"I do not remember any special cause for this immigration, and I therefore conclude that the increase of population from 1831 to 1841 was the result of a gradual and healthy extension of the trade of the town.

"But there is no doubt that in 1851 the population was unduly swelled by temporary inhabitants, attracted by the construction of the East Anglian Railways, by the Estuary works, and by the house-building which was going on. Allowing 1000 on these accounts, it follows that 3529 regular inhabitants (nearly one-third more than the natural increase of the population for the last 20 years) have left Lynn during the last ten years, leaving the population about the same as in 1841.

"The decline of population in the last ten years has fallen principally on the parish of St. Margaret, the numbers in each parish being as follows:—

St. Margaret	3047
South Lynn	120
Total	3167

"The proportion of females to males in 1851 was less than in 1841, but in 1861 it is more than in 1841. Taking the proportion in 1841 as the standard, the number of females in 1851 would be 10,645 instead of 10,267, and in 1861, 8364 instead of 9003.

"The total number of houses in 1861 is greater by 128 than in 1851, and by 630 than in 1841—502 having been built in the first 10 years, and 128 in the last 10 years. The number of uninhabited houses in 1851 is nearly one-fourth less than in 1841, showing that during the intervening 10 years building did not out-run, or, indeed, keep pace with, population. The

number in 1861 is about 2½ times as great as in 1841, and about 3½ times as great as in 1851, although the inhabited houses are much less fully occupied than formerly, the number in 1861 being greater by 335 (about one-eleventh) than in 1841, while the population is less. The total number of houses built in the 20 years (630) bears nearly the same proportion to the number of inhabitants who have left (4529) that the number of houses in 1841 does to the population at that time, showing that there has been little or no building beyond the wants of the population for the time being.

"Could the 4529 persons who left Lynn during the last ten years have taken their houses with them, the town would, so far as I can see, be much in the same state now as in 1841. But though the inhabitants are gone the houses remain, a burden to their owners and the cause of unexampled depression in the value of house property generally.

"The number of houses building in 1861 is only three, viz., two shells opposite the Terrace-walk, which have been in their present state for years, and a dwelling intended to form part of the new County Court as a residence for the bailiff."

To these observations, Dr. Lowe adds for me the following:—"The average population of the periods 1841-1851-1861 is 17,056. The excess of births from 1841 to 1851 equals 1,422, which, added to the population of 1841, would give 17,461; but, as Mr. Coulton has shown, there must have been an influx of 1687 persons during the ten years. In the next decennial period these immigrants disappeared, and a portion of the population in addition. The average population of Lynn for the three last decennial periods should be taken at 17,056, and on that average calculations should be based." Agreeing with these writers as to the causes of fluctuation and the averages given, I still think it an important and open question why the population *per se* should be decreasing. As the births exceed the deaths, the diminution must occur from emigration of the native-born or old settlers in the town.

Value of Life in Lynn.

Dr. Farr has been kind enough to allow me access to some unpublished records, showing the value of life in England and English towns during ten years, and including the causes of death during the same period. The ten years named are from 1851 to 1860. I append the results:

Average Annual Rate of Mortality in Lynn, from all Causes, at different Ages, to 100 *Living, during the Ten Years* 1851-60.

Lynn.	Under 5	5 -	10 -	15 -	20 -	25 -	35 -	45 -	55 -	65 -	75 -	85 or more.
Males .	7·235	·858	·600	·774	·808	1·029	1·229	1·825	3·536	7·100	14·054	32·857
Females .	6·604	·788	·442	·510	·766	·774	1·190	1·254	2·222	6·128	12·308	29·200

In regard to the value of life in Lynn as compared with England at large, the advantages are against the town; the value of life in England altogether, at all ages, being—for males, 2·305; for females, 2·132; while in Lynn it is—for males, 2·390; and for females, 1·989.

Ventilation.

But little attention is paid to the ventilation of houses in Lynn; I saw, in fact, no method adopted anywhere, except in the Hospital and the Workhouse; and I learned from all with whom I spoke that the necessity for a special provision for the free admission of air into dwelling-houses was not appreciated. Even in modern houses there is disregard on this important point.

Water Supply.

From the time when Lynn was first built up to the year 1423, the distress for water was frequent and serious. Not but that there was plenty of water around, but that such as was there was not fitted for domestic purposes. The inhabitants were in the condition of the "Ancient Mariner." There was—

> "Water, water everywhere,
> But not a drop to drink."

In the year 1423, in the reign of Henry the Sixth, the mayor and commonalty received powers to bring in a supply. They therefore cut a canal from a place near to the town, called "Kettle Mills," to a river known as the "Gaywood." The Gaywood rises from three springs seven miles from the town; and one can scarcely imagine a better source of water than that selected in the fifteenth century. In the time of the Protectorate of his Highness Oliver Cromwell,—viz., from 1655 to 1657—the water-supply was improved, the canal was cleansed, and the amount of water brought down was rendered more abundant. The ale-keepers were made to bear the expense. The supply through the streets of the town had probably been, up to this time, by small canals; and perhaps it remained in this form until 1699. Then wood was fetched from Norway, out of which water-pipes were constructed. A water wheel was also used with three pumps, by which the water was raised into a great reservoir. In this condition the water-supply continued until the year 1829, when a tower and tank were built, and steam was allowed to replace water power. The wooden pipes were also replaced by iron ones. The reform in water supply was great, but it was not perfect; for the water, although it had abundant fall to supply every part of the town, was allowed to run into cisterns, from which it was again raised by hand power,—an absurd waste of force which can hardly be credited, and which is now happily altogether remedied. The houses are still supplied with well water in a few instances; and but recently, water was actually obtained from the ditches. Mr. Kendall, in giving evidence before the Sanitary Commission in 1853, reported that, at that time, he had cases of fever which he could fully account for:—"The people had no water but what they got from the ditches." No analyses have yet been made of the water at Lynn. The water from the Gaywood, the chief source of supply, is very good, is free from hardness, and is brisk and fresh. The supply is from 7 a.m. to 5 p.m., and extends over all the town. The following is the analysis of Gaywood water, made specially for this report by Dr. Wood:—

"*Analysis of the Gaywood River Water, King's Lynn, after Filtration.*

"The water contains less solid matter than many of the waters supplied to towns. The waters with which London is supplied average about 20 grains per gallon, while the Gaywood river water contains only 12·32 grains per gallon. Of these 12·32 grains, the greater part consists of carbonate of lime, with a trace of iron, the remainder being composed chiefly of sulphate of lime; there is also a small quantity of chloride present.

	In a Gallon. Grains.
Carbonates	7·824
Sulphate of lime	4·168
	11·992

The amount of lime-salts contained in this water renders it palatable, and enables it to retain a fair amount of gas in solution. It is admirably adapted for washing and cooking. It is free from organic matter in solution."

Drainage.

Good drainage in Lynn was at one time impossible. Up to the year 1821 the waters of the river had frequent mastery over the town, and flooded it. At all times then, the level did not admit of sufficient flow. But in the year 1821 the river was deepened for many miles, the outfall was widened, and the excavation of what was called the "Eau Brink" was completed. Great benefits followed; the sewers were lowered, and the floors of the houses, which in many instances were below the level of the ground, as is common in old towns, were rendered dry and comfortable. Within the last ten years a vast plan has been completed, by which an immense tract of land has been redeemed from the sea near to the town. The plan is not yet completed; 1200 acres on one side, and 700 on the other, each six miles from Lynn, have to be redeemed. The progress of the works has been stopped, to allow the sands to warp up. The drainage is as yet far from perfect. Surface drainage is not entirely done away with, and portions of the town which are provided with trapped drains lie on the margins of three "fleets," or open sewers, into which the whole of the sewage pours itself from the houses. When the tide is out, I know of no sight more disgusting than the worst of these fleets. The fleets proceeding across the town from the river form, I had almost said, a network of open sewers. The fleets are so wide and so deep that bridges have been built over them. Boats can sail up them when there is sufficient flow of water, and when there is not a sufficient flow boats can be, and are, moored in them. Looking down into the "Purfleet," I saw at low water the discharge of six water-closets down the steep of the sewer, while every kind of abomination lay at the bottom, with small boats stranded in the midst. The sewage is removed as far as is possible by the current of the river, the ebb and flow. I believe that it is in contemplation to cover in these loathsome channels, and let them remain what they ought to be, sewers simply, not sewers and rivulets for boats, at one and the same time.

The sewage from all parts of the town is lost in the river; no attempt has yet been made to utilise it.

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Climate—Meteorology—Site.

The climate is rather cold and damp. The precise meteorological conditions I am unable to describe, for there is no meteorological station here, nor have any accurate readings been recorded. The site of the town is even and flat, and the soil is of sand and warp.

Streets and Dwellings of the Poor.

The streets are narrow, and paved mainly with large stones; but they are cleaner and more open than in Norwich. The dwellings of the poor vary considerably; in the old parts of the town the houses are miserably small, dirty, and overcrowded; but in the south, in what is called South Lynn, there are better classes of houses. The town is well lighted with gas in every part.

Diet of the People.

The diet of the poorer classes is insufficient. The Norfolk dumpling—flour and water—is the prevailing dish. Animal food is sparingly consumed; bread is taken freely, and tea and vegetables (potatoes). Probably fish is eaten in greater quantities than in Norwich, for the reason that large supplies of fish are brought into the port; but the fish trade is for export mainly.

Moral and Social Condition.

The town of Lynn, at the time when Mr. Lee inspected it in 1853, received an atrociously bad character from its Medical residents. Dr. Whiting, one of the gentlemen who gave evidence, said:—"I must beg leave to say that I think a great deal of the disease in this town originates in debauchery and drunkenness; debauchery principally, but drunkenness to a great extent. Prostitution is carried to a greater extent than in any town I have lived in." Further on, the witness stated that the use of poisonous drugs, especially opium, was largely used, and the production of abortion was a common offence. In all these respects, Lynn, during the past eleven years, has greatly improved.

Epidemics.

For many centuries the "*remitting fever*" was the great epidemical or rather endemical disease of Lynn. It was sometimes called the "bilious remittent;" and, according to Dr. Hamilton, who practised during the greater part of the 18th century, it was almost identical in type with the remitting fever of the Netherlands and Bengal, and the yellow fever of the West Indies. In 1823 Dr. Whiting found this endemic disorder still extremely prevalent; and in 1826 there was a severe and very fatal outbreak. The improvements that have been effected seem to have robbed this disease of all its terrors. We may say almost that prevention has asserted its triumph to be perfect.

Cholera has been little known. In 1832 it passed over the town almost altogether; two or three *imported* cases, which spread for short distances, and forty-nine deaths from cholera and diarrhœa, occurred in the year. This is little above the annual average of deaths from diarrhœa or cholerine; and in a population of 13,370 living in the year 1832, it was rather low than otherwise. In 1849, four deaths are on the local register as from cholera, but only two of these are accepted by the Registrar-General as satisfactory. In a population that had now increased to 20,530, this was a very low mortality. In 1854 there were nine fatal cases, principally imported, and all in the worst quarters of the town, near the fleets and amongst the boating population. In fact, cholera has never spread in Lynn. I shall refer to this great fact, and to the lesson it teaches in speaking of the etiology.

Of the other epidemic diseases, "fever" stands first, whether in the form of typhus or typhoid, as the most prevailing type has not been determined. Scarlet fever follows, then whooping-cough, small-pox, measles, diarrhœa and dysentery, and croup.

Vaccination.

Vaccination was for many years seriously neglected at Lynn, and the result was that, in 1845, an epidemic of small-pox occurred, which carried off 104 persons. For some years previously there had not been a fatal case; and it was probably from a feeling of false security that the great preventive measure of Jenner had been neglected. Up to the present time the process of vaccination is imperfectly carried out, though far more efficiently than formerly. In the return of 1861 there is no fatal case from small-pox.

Mortality from different Diseases.

The average annual rate of mortality in Lynn, from all causes, is, as we have previously seen, largely above what it should be, and indicates a serious prevalence of preventable diseases. Fortunately, I am enabled, through the kindness of my friend, Dr. Lowe, to give, in one precise and comprehensive table, the mortality of a full period of ten years, viz., from 1841 to 1850:—

Mortality of Lynn for Ten Years, from 1841 *to* 1850, *including Special Diseases and Total. Average Population*, 17,156.

Year.	Fever.	Scarlatina.	Measles.	Small-pox.	Bronchitis.	Croup.	Aphthæ.	Whooping-cough.	Cholera.	Diarrhœa and Dysentery.	Inflammation of Lungs & Pleura.	Inflammation of Stomach and Intestines.	Phthisis.	Hepatitis.	Cardiac Disease.	Dropsy.	Paralysis and Apoplexy.	Meningitis.	Epilepsy and Delirium Tremens.	Convulsions.	Hydrocephalus.	Old Age.	Cancer.	Accidents and Sudden Deaths.	Atrophy.	Not requiring special notice.	Total.
1841	16	3	—	—	4	2	12	15	—	3	18	2	53	2	3	12	13	5	1	49	—	56	3	23	24	19	338
1842	48	50	3	—	8	1	2	6	1	—	23	—	55	4	7	26	13	3	—	67	5	56	4	19	20	35	456
1843	30	27	33	—	6	—	—	23	—	1	23	3	57	—	4	17	18	2	3	60	3	65	2	8	25	25	435
1844	18	9	2	—	10	—	7	1	1	2	22	1	64	5	6	22	18	2	2	57	6	73	3	18	23	12	384
1845	16	6	—	104	10	1	1	2	1	—	13	10	57	7	16	7	14	4	2	36	8	70	8	15	27	28	463
1846	10	2	—	22	15	5	9	28	9	17	20	6	58	1	19	10	22	8	2	48	4	52	7	15	50	30	469
1847	20	1	27	—	25	4	8	13	—	2	28	5	47	4	15	17	18	3	1	48	1	54	6	20	39	32	438
1848	15	2	6	1	31	2	3	3	4	7	19	6	50	3	11	17	25	10	7	28	8	42	9	16	49	33	407
1849	16	12	—	6	24	5	4	10	2	14	16	9	49	5	15	9	25	2	2	29	5	42	5	19	32	36	393
1850	21	60	6	20	22	9	5	9	1	4	32	5	48	9	21	7	21	4	5	31	10	34	8	16	48	34	490
Total	210	172	77	153	155	29	51	110	19	50	214	47	588	40	117	144	187	43	25	453	50	544	55	169	337	284	4273

I am also enabled, through the kindness of Dr. Farr, to give a table showing the causes of death from 1851 to 1860:—

Average Annual Mortality from Different Causes to 100 *Living, from* 1851 *to* 1860.

Lynn.	Typhus.	Cholera, Diarrhœa, and Dysentery.	Other Zymotic Diseases.	Cancer.	Phthisis.	Scrofula, Tabes Mesenterica, and Hydrocephalus.	Disease of Brain.	Disease of Heart and Dropsy.	Disease of Lungs.	Diseases of Stomach and Liver.	Diseases of Kidneys.	Violent Deaths.	Other causes.
Males.....	·109	·116	·307	·028	·207	·105	·325	·181	·284	·116	·064	·117	·439
Females ..	·115	·085	·255	·071	·215	·072	·282	·131	·215	·088	·016	·028	·416

Deaths at Different Ages—Year 1861.

Males, total deaths of, 157. Under 1 year, 34; under 5 years, 56; from 10 to 15 years, 11; from 20 to 25 years, 7; from 25 to 35 years, 10; from 35 to 45 years, 5; from 45 to 55 years, 19; from 55 to 65 years, 19; from 65 to 75 years, 17; and from 75 to 85 years, 8.

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Females, total deaths of, 179. Under 1 year, 24; under 5 years, 47; from 10 to 15 years, 8; from 20 to 25 years, 11; from 25 to 35 years, 12; from 35 to 45 years, 9; from 45 to 55 years, 18; from 55 to 65 years, 19; from 65 to 75 years, 32; from 75 to 85 years, 8; and over 81 years, 1.

Males and Females—1861.

Males, births of, 234; deaths, 157; births over deaths, 77. *Females*—births, 247; deaths, 179; births over deaths, 68.

Etiology.

The etiology of Lynn is specially instructive. I need not trouble the Medical reader with a recapitulation of the facts, that the current prevailing diseases are traceable to remaining faults in the hygienic conditions; but there are three points to which I must allude:—

1. *The Cessation of Fatal Remitting Fever or Bilious Remittent* on the introduction of an improved drainage is one of the great facts of modern sanitary science. Just as gaol fever has been swept from gaols, remittent bilious fever has been swept from Lynn. Dr. Hamilton, writing not a century since, said:—"In riding through the country where it raged, the number of convalescents, with wan, dejected countenances, to be met with everywhere, was prodigious." Where would he meet them now in or near to Lynn?

2. *Why Cholera has never spread in Lynn.*—In this question a great truth is embodied. If mere bad smells could cause cholera, if bad drainage and open sewers could cause cholera, surely that disease ought to have been king over King's Lynn on the three great occasions when it was imported there. Why, then, did it not spread? For this reason, that the main supply of water for the town is from the Gaywood river, an independent source, into which the excrement of the town is not emptied. If the town, situated as it is, had been fed with water from its main sewer, the Ouse, what a tale would have been told of the ravages of King Cholera in King's Lynn, we all know, who have mastered Snow's immortal discovery of the distribution of cholera by water. Poor Snow! so earnest and so vigilant, so far-seeing and so little comprehended, how he would have used an illustration on so grand a scale as that we have here seen;—an *experimentum crucis*, forsooth, of the truth of his great law! Let us remember him the more gratefully as every such an experiment is recorded, and preserve the name of a countryman dead, as some atonement for our neglect of a countryman living..

3. *Calculous diseases* are of less common occurrence in Lynn than in Norwich; yet the diet of the poor is much the same, and the homes are not much better. The reason for this is, I think, explained on Mr. Williams' view as to the predisposing causes of calculus, narrated in my last report. That is to say, the tendency to diathetic rheumatic disease is less dominant.

MEDICAL BIOGRAPHY OF LYNN.

The Medical biography of Lynn is not lengthy. The only men of the past of whom I can gain information, and who were in any way celebrated, are the following:—

Dr. George Hepburn, M.D.—Dr. Hepburn settled in Lynn as a Physician about the year 1700. He soon obtained a large and fashionable practice, and in time made the acquaintance of Sir Robert Walpole, probably at the period when that statesman contested Lynn, viz., in 1713. Sir Robert selected Hepburn as his Physician, and confided greatly in his skill and experience. Hepburn lived to be 90 years of age, and died in 1759. He added nothing to the literature of Medicine.

Sir William Browne, M.D.—Dr., and afterwards Sir William Browne, practised in Lynn from the year 1721 to 1760. He was the grandson of Sir Thomas Browne, and son of Dr. Edward Browne, whose life was sketched in our Medical History of Norwich. Like his ancestors, Sir William Browne was strangely eccentric: he tried to take precedence of the Mayor of Lynn at a dinner on a great festival, and received from the Corporation a reprimand, which rather amused than annoyed him. On another occasion, when a pamphlet had been written against him, he nailed the offending sheets on the door of his house, and laughed like a satyr. In spite of his odd humours, he was respected, and was made Deputy-Lieutenant of the county, For some years before his death he went to London, and wrote a series of essays, known, in brief terms, as the "Opuscula," a strange, half-mad volume, on all kinds of subjects. Elected President of the College of Physicians, he opposed the claims of the Licentiates, and got laughed at for his pains. Foote put him into his play of "The Devil on Two Sticks," and made great market of him; but the old Doctor, so far from being offended, sent the player who impersonated him a complimentary note and his own "muff," that being an article of dress which the actor had omitted. Sir William Browne graduated at Cambridge in 1721. He was a student of "Peterhouse," and endowed the College with a scholarship. He also left three gold medals, worth five guineas each, to the University of Cambridge, to be competed for every year. He did little for pure Medical or scientific literature, except to translate Gregory's Catoptrics and Dioptrics. He lived to be 82, and died in 1774, accounting for his prolonged good health on the ground that he "had neither wife nor debts."

Dr. Robert Hamilton, M.D., F.R.S., practised in Lynn from 1749 to 1793. He was a Physician of good repute, and contributed several papers, of importance to Medicine, to the *Philosophical Transactions*. I have already referred to his contributions on the prevailing diseases of Lynn and the district around. He wrote on the "Mumps," on "Puncture of the Bladder," on "Mercury and Opium," and on "Scrofula." His papers show him to have been a man of clear intellect and of learning. Born at Edinburgh in 1721, he lived to the age of 72 years, and died very much beloved by his fellow-townspeople. His name is often spoken in Lynn as one of the celebrities of the past.

Dr. R. Redfearn, M.D.—Dr. Redfearn, who followed soon after Dr. Hamilton, was a man of great talent and of good reputation. Not much is remembered of his life; but I name him specially as having contributed an important paper to the first volume of the *Medical and Physical Journal*, in 1799, on a method of treating diabetes by placing the patient purely on animal food, and administering, at the same time, alkaline remedies. This method, which is identical with modern practice, was not invented by Redfearn, but by Dr. Rollo, who suggested it on the chemical hyphothesis, that in diabetes there was an excessive oxidation, and that this was only to be checked by the avoidance of foods that were given to ferment, and by the use of alkalies. Dr. Redfearn's object in publishing a case of diabetes treated on this plan was to show that the system was effective beyond expectation. The case, in his opinion, was cured. The alkali used by Dr. Redfearn was ammonia, in the form then known as hepatised ammonia.

Dr. Charles Cotton, M.D., is the last Medical man of whom I can speak. He practised in Lynn as a General Practitioner for many years, and with much success. He was, says one who knew him well, a thoroughly good Practitioner, and a very skilful operator. He was one of the first Surgeons in the provinces who performed excision of the knee joint, in which operation he was very successful. In character he was quick and impetuous; but truthful and honest in the highest degree. Dr. Cotton died on December 25, 1858, having but reached the meridian of his life and of his useful career.

In this history of Lynn, the reader will, I hope, find many useful facts: the greatest lesson taught in it is that having reference to sanitary facts;—to the manner in which the great scourge of modern times, cholera, was interrupted on three occasions by the water supply, and to the subsidence of remittent or bilious remittent fever on the institution of an improved system of drainage and embankment.

ANOTHER CASE OF OVARIOTOMY IN FRANCE.—M. Auphan communicates to the Academy of Sciences an account of an ovariotomy, recently performed at Alais by M. Serres, of that town. The subject was a girl, twenty years of age, the tumour dating back scarcely more than fourteen months. One of the cysts was found to contain about fifteen litres of fluid, and another three litres, a portion of the contents of the latter being effused into the cavity of the abdomen, owing to the bursting of the wall of the cyst. Considerable adhesions, extending as far as the diaphragmatic region of the peritoneum, existed; and, although the time it occupied is not stated, the operation seems to have been tedious. Menstruation came on in about fifty hours after the operation, and twenty days before its regular period. The clamp and sutures were removed on the eighth and ninth days; and at the time of the report being made (fifteenth day) the patient might be considered cured, were it not for a slight oozing of blackish, sanious fluid from around the pedicle.

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.—At a meeting of the Medical Board, held on Tuesday, the 2nd inst., Mr. William Stokes, jun., M.D. T.C.D., L.R.C.S.I., was elected Surgeon to the Hospital, in the room of the late Mr. Smyly.

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GENERAL CORRESPONDENCE.

MISS NIGHTINGALE'S "NOTES ON HOSPITALS."

LETTER FROM DR. FARR.

[To the Editor of the Medical Times and Gazette.]

SIR,—An article which appears in the last number of your influential Journal requires some correction. Miss Nightingale is well able to defend her own views against all comers, as she has shown on many occasions; so I do not write in her defence, but to vindicate an important principle, which has been very ingeniously misunderstood by the writer. One or two of his heresies are too dangerous to pass entirely unnoticed; and it appears to me that they are opposed to the doctrines which the *Medical Times and Gazette* has always advocated.

Miss Nightingale, in the first section of her "Notes on Hospitals," lays it down, the writer asserts, "as an axiom, that the sanitary condition of Hospitals modifies the ultimate issue of cases which pass through the wards." This does not appear to be very unreasonable, and is placed beyond doubt by the observations in the Scutari Hospital, and by others equally conclusive. But the London Hospitals are referred to; and one of the subtlest Physicians of the day had ventured to assert, that the high rate of mortality in a Hospital, of which he is an ornament, "is mainly determined by the reputation of its Hospital staff." This is one of those explanations which dazzle us by their brilliancy, and is thus disposed of summarily by Miss Nightingale:—"A high and increasing death-rate has been actually put forward, not as the result of these causes [which she enumerates], but as the result of increasing celebrity; which can have no other practical meaning than this:—that a great many people go there to die next year, because so many have died there this year; a principle equally applicable in private practice, and according to which the Physician or Surgeon who loses the largest percentage of cases is the man most worthy of confidence."

We can scarcely wonder at our reviewer affirming that this telling extract "is incorrect, illogical, and impulsive;" but instead of a discharge of dialectic Roman candles, it would have been much more satisfactory to a plain person to see a correct statement of the actual cases treated and of the causes of death in the various Hospitals. We should then be able to judge of the value of the hypothetical cause which it is proposed to substitute for sanitary conditions, and for the two rows of beds in wards back to back.—(See figure, p. 39 of "Notes on Hospitals.") The Medical staff of the Hospital in question is equal to that of any Hospital in London; but how can the celebrity of the Surgeons contribute to the mortality? Very few patients die on the table; and if the worst cases are sent to the Surgeons, they will scarcely operate unless there be a fair chance of recovery. For the deaths by pyæmia and erysipelas the Hospital is answerable, and not the Surgeons. Then it is difficult to understand how acute diseases of unusual severity or fevers can be selected on account of the reputation of the Hospital staff. But we want facts to enable us to decide. We ask for light, and are open to conviction.

Another passage-at-arms arises on the question of "contagion and infection," of which the denunciation, "if not promulgated by a lady, would require rough treatment." Miss Nightingale says, that there are two or three diseases which can be propagated by inoculation. The word "infection," too, "expresses a fact, and does not involve a hypothesis" (pp. 9, 10, 11). An overcrowded fever ward poisons the blood of the sick, and also "of the Medical attendants and nurses, so that they also become subjects of fever."—(See "Notes on Hospitals," pp. 8—11). This is all that she admits, while affirming that "infection is not inevitable, but simply the result of carelessness and ignorance." Contagion in the Levantine sense she spurns, affording, as it does, "certain classes of minds, chiefly in the southern and less educated parts of Europe, a satisfactory reason for pestilence, and an adequate excuse for non-exertion to prevent its recurrence." It presupposes the existence of a certain germ, which can be conveyed any distance, attached to clothing, "especially to woollen stuffs, for which it is supposed to have a particular affection, and to feathers, which, of all articles, it especially loves, so much so, that, according to quarantine laws, a live goose may be safely introduced from a plague country, but if it happen to be eaten on the voyage, its feathers cannot be admitted without danger to the entire community. There is no end to the absurdity connected with this doctrine." This is evidently drawn from the life, and is probably a quarantine study by the Miss Smith, who bore her eastern honours so meekly to Europe. Before his "rough treatment" of Miss Nightingale, the writer will, I trust, in justice to his cause, graduate in a Levantine lazaretto.

In a former number of the *Medical Times and Gazette* I gave the formula for determining the death-rate, which is obtained by dividing the deaths in a given time by the lifetime; thus, the deaths in a regiment during a year divided by the mean strength during the same time give the annual rate of mortality. The Hospitals, asylums, and workhouses contain the greatest number of inmates in winter and the fewest in summer; so, taken in the aggregate, the numbers on April 8, 1861—the census day—represent pretty accurately the average number of inmates in the year. The register books supplied the deaths for the year. The 57 lunatic asylums contained 21,909 inmates; the deaths in the year were 2425; and the mortality among these lunatics was at the rate of 11 per cent. annually. By the same method, the 22,785 deaths in workhouses, containing 119,984 inmates, implied that the annual mortality was at the rate of 19 per cent. But in the same year, 7227 deaths were registered in 106 Hospitals, which had 12,709 beds occupied by patients on the census day of that year, and consequently the mortality was at the rate of 57 deaths to every 100 occupied beds. Miss Nightingale (p. 3) calls attention to the fact that in 24 London Hospitals the mortality by the same method is at the rate of "90·84 per cent., very nearly every bed yielding a death in the course of the year." These are her precise words, admitting of no ambiguity. Next, we have 12 Hospitals in large provincial towns yielding a death-rate of 83 (a) per cent.; and there are 25 county Hospitals in country towns the mortality in which is no more than 39 per cent. "Here we have at once a Hospital problem demanding solution."—P. 4.

This is one method; there is another which is less correct, but more common. The deaths are divided by the mean number of cases admitted and discharged. By this method it is shown in M'Culloch's "Statistics of the British Empire" (vol. ii., p. 558, ed. 1839), that the case mortality in country Hospitals of moderate dimensions was about 4, in the London Hospitals about 9 deaths out of 100 cases treated. The defect of the method lies in this: it does not take the element of time into account, which is important, as it so happens that cases are scarcely ever admitted as in-patients of Hospitals at their origin, and that many cases are discharged from Hospital before they have terminated. The practice varies in different Hospitals. Thus, at St. Thomas's, London, the patients remained thirty-nine days on an average in 1861, while in two Dublin Hospitals the patients remained twenty-seven days. (b) It is incorrect to compare the cost of keeping patients in the two Hospitals, and it is equally incorrect to compare the mortality without noticing the variation in the time over which it extends (twenty-seven and thirty-nine days).

Miss Nightingale, with her usual conscientiousness, has taken care to understand both methods, and has explained them, so as to make them intelligible "to the meanest capacity." Either method might be employed; but the ratios of the two methods can only be confounded by inconceivable blundering. Such blundering, however, occurs in the inculpated article, and the writer exclaims,—"There is something audacious" in the table where twenty-four London Hospitals are accredited with a mortality per cent. on inmates [beds, as she explains, p. 4] of 90·84: it is a "simple piece of arithmetical legerdemain;" the problem as here put is exactly,—"What is the quotient of 100 apples divided by 15 red herrings?"—the patients dying in a Hospital having evidently no more relation to the average number sick in the beds, than "apples" have to "red herrings!"

Such is the licentiousness of a careless writer! "Anonymus" is naturally a much loftier being than "Anonyma," although he does mingle "audacity," "apples," "sins," "red herrings," and "Lord Dundreary," so lavishly in his vocabulary, as to give rise to a suspicion that he somewhat over-estimates the dignity of a certain reviewer of the sex to which the Latin grammar gives precedence, and who "could treat" "a lady" roughly "an he would."

What a refreshing contrast does the woman's book afford to the man's review! She has not walked through—she has lived

(a) I omit decimals.

(b) "Hospital Dietetics," by John Ch. Steele, M.D. *Trans. of Social Science Society*, 1862, p. 631.

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in Hospitals during many of the fairest years of her life. She understands the whole economy of these institutions; she has watched thousands of patients enter their portals, and leave their wards after long illnesses, which she has softened by science and by kindness. Her observing powers are of as high an order as her opportunities, and her sagacity in drawing deductions has rarely been surpassed; yet, not satisfied with deduction only, she humbly seeks counsel from scientific induction. She makes herself thoroughly acquainted with the methods and resources of Medical statistics. She encounters great labour and incurs great expense to induce the Hospitals of this kingdom and of the continent to keep records and to publish analyses of the facts respecting the sick which take place within their walls. She probes all the defects which make Hospitals ways of death to their inmates. She collects plans; she consults engineers; and she brings the whole of the facts together in a clear, practical form, and holds out hopes that general Hospitals may yet benefit mankind directly, and not merely as pathological observatories and Medical schools. The third edition of "Notes on Hospitals" is, in my opinion, the most judicious, complete, and masterly treatise that has recently appeared on any subject.

February 6. I am, &c. W. Farr.

*** We thoroughly endorse every word of Dr. Farr's commendation of Miss Nightingale,—nay more, we hold her entitled to this special praise, that in undertaking the investigation of Hospital mortality, she is not only protecting the most poor and most helpless from falling into the very snares of death in the places whither they go for health, but she is consummating a reform, which the members of our Profession, to whom it rightly belongs, have not yet been able fully to carry out. We need not remind our readers, that spite of the demonstration of the fatality of crowded Hospitals thirty years ago or more, begun by the great military Surgeons, as Guthrie, with regard to military Hospitals;—continued by the obstetric Physicians, as R. Ferguson and Rigby, with regard to Lying-in Hospitals;—and confirmed by independent men, as Drs. G. Gregory and Copland, and by universal experience as regards all civil Hospitals,—yet that the real governing bodies, the committees, have not yet yielded to Medical influence, and that the demand for pure air, which has seemed like a crotchet in the mouths of the doctors, does at last seem likely to be enforced by the authority of practical, acute, and energetic workers—such as Miss Nightingale—out of the Profession.

But all this is no reason why our very acute and able reviewer should not point out such statements in her book as seem erroneous or exaggerated. Having read the book, and the review, and Dr. Farr's letter, we offer the following remarks:—

1. With regard to *death-rates*—let us accept what our distinguished correspondent tells us is the real mode of computing a death-rate for any given place or institution. But we add, that the use popularly made of a death-rate, viz., to take it as a test of the qualities of the *place* in which, omitting those of the *people* amongst whom the deaths occur, is unfair. To say that Cavendish-square is a "healthier place" than Lissongrove, because the percentage of deaths amongst the English gentry who inhabit the one is less than that amongst the dirty Irishry in the other, is absurd; for we may be certain, that if the inhabitants were to change places they would not change their morals or their habits. In like manner we can point to two workhouses, belonging to one parish. In one the death-rate is 35, and in the other 8½ per cent. of the average number of the inmates per annum. Is it, then, fair to say that the first workhouse is "more unhealthy" than the other? Not a bit of it, no more than it is to compare apples with herrings. The first receives the poor in acute illness and acute distress, and keeps the dying, destitute wretches; whilst the chronic paupers are drafted off to the other.

But it appears to us that Miss Nightingale, spite of her own ample knowledge, and spite of her own admission of the influence of various diseases, ages, etc., etc., does yet, whilst admitting the worthlessness of Hospital statistics in page 2, deliberately use them as "startling facts," at pages 3 and 4, to prove what she has already confessed that they cannot prove.

She gives us, first, the twenty-four London Hospitals, with their mortality of 90·84 per cent.; secondly, twelve Hospitals in large provincial towns, with a death-rate of 83·16; thirdly, twenty-five country Hospitals, with a death-rate of 39·41 per cent. per annum. And she goes on to say:—

"Here we have at once a Hospital problem demanding solution. However the great differences in the death-rates may be explained, it cannot be denied that the most unhealthy Hospitals are those situated within the vast circuit of the metropolis; that the next lower death-rate takes place in Hospitals in densely-populated, large manufacturing and commercial towns, and that by far the most healthy Hospitals are those of the smaller country towns."

Of this extract we can only say that it seems to have been written in haste and left uncorrected; else we are sure that the acute and candid author would have seen that she is taking the mere mortality as a test of healthiness of a Hospital; and implying that certain Hospitals might be unjustly condemned as "unhealthy;" whereas the fact would be that they were doing good service by admitting the "most unhealthy" inmates. Any comparison which ignores the difference between the apple-cheeked farm-labourers who seek relief at Stoke Pogis (probably for rheumatism and sore legs), and the wizzened, red-herring-like mechanics of Soho or Southwark, who come into a London Hospital, is fallacious. Whether or no Dr. Farr's method yield the absolutely correct formula for the death-rate, it does not—confessedly—give data for the inferences which Miss Nightingale allows herself to draw from it in the passage which our reviewer criticises.

2. With regard to the question of the "high and increasing death-rate" as a result of the celebrity of a Hospital, we have only to say that Miss Nightingale's observations are marked by a rhetorical artifice (that of drawing absurd conclusions from your adversary's argument, and fastening them on him), which was fairly dealt with by our reviewer. Certainly, the celebrity of some Practitioners brings them the worst cases, and an addition to the mortality of their practice. But an opinion on such a point cannot be proved by data, and, if wrong, is scarcely a "heresy."

3. With regard to Miss Nightingale's statements about contagion and infection, which our reviewer said deserved "rough treatment," we think they are scarcely warranted by Miss Nightingale's own admissions; they are contrary to the general experience of mankind; they would lead to hazardous practice; and they are marred by a rhetorical artifice, which we are sorry to see honoured by Dr. Farr's approbation. When the lawyers have a bad cause they throw dust into the eyes of the jury. Miss Nightingale throws feathers; and brings in a goose to show that absurdities are committed by the ignorant quarantineers of the Mediterranean, as if such an argument could disprove the existence of contagion or infection at home.

Miss Nightingale's opinions on these matters are accurately set forth by Dr. Farr. We may further abstract them thus—*a*. She ridicules the existence of germs like sporules of fungi, capable of transportation, etc. *b*. She admits a specific virus in "two or three diseases," as small-pox, etc., which can be seen and tasted, and which propagates the disease by inoculation. *c*. By "infection," she means the effects of bad ventilation, air poisoned by emanations from breath, etc., shut up and allowed to decompose, etc. *d*. She admits that washer-women may be poisoned by inhaled organic matter from foul linen, in badly-ventilated laundries. *e*. She ascribes "infection" to ignorance and bad management, and defective ventilation. *f*. Says that "no diseases ought to be considered infectious;" *g*. Denounces the notion of setting apart wards for diseases so reputed, and affirms that they may be safely treated in wards with the other sick, "with proper sanitary precautions." *h*. "No stronger condemnation of any Hospital or ward could be pronounced than the simple fact that any zymotic disease had originated in it," or had spread from the first patient. *i*. She speaks of fear of entering a cab

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in which a case of fever or small-pox has been for half-an-hour as "morbid." "Nay," she says, "we have heard of a myth of scarlet fever being carried in a bed-side carpet."

It will appear by these extracts that Miss Nightingale has just that half-view of the truth which characterises the old "anti-contagionists," whose squabble with their equally absurd opponents, the "contagionists," created so much amusement to the readers of Captain Marryatt's novels. The fallacy of the one, reduced to strict terms, was this:—"Some diseases may be generated at home by filth; therefore no disease can be imported by contagion." That of the other: "A given disease is imported by contagion; therefore it cannot be generated at home by filth." Let any one take down an old book on Quarantine—say "Maclean"—and he will find throughout these assumptions, just as if a disease of local origin could not spread, or as if it might not spread into regions where there may be no local causes adequate to have originated it at first.

The view held by practical men at present is, that each side is true in its proper sphere. We have often had occasion to show, that there is a whole class of Hospital diseases which may be engendered almost at will, by over-crowding and want of ventilation—puerperal fever, erysipelas, pyæmia, Hospital gangrene, etc., etc. All these diseases are capable of spreading, both by contagion and by infection, even amongst the healthy and cleanly. Other diseases there are whose origin is doubtful (but whose favourite haunts are so like those of the last, that some believe them to originate under similar circumstances), and which, also, can and do spread in like manner—small-pox, scarlet fever, etc., etc. Each disease of these two classes is justly supposed by Dr. Farr to depend on some special poison, to which he has given names, as *typhine*, *scarlatinine*, etc., etc. These poisons have never been isolated, or seen, as Miss Nightingale seems to suppose, and their existence is inferred only from their effects. But as they exist, they must exist *somewhere;* and as it is not improbable that they are combined with vegetable spores or germs, or with minute animal atoms, pus globules, etc.—or else with organic particles in a state of chemical change—so they may not only be transported by the air, but may adhere to walls, carpets, etc., etc. Whilst the origin of some of the above diseases may probably be prevented with certainty, as the spread of all may be hindered, by free ventilation and cleanliness, yet sad experience shows that all precaution may fail. They may be "carried" into the houses of the healthiest, and may there spread, spite of "all sanitary care." Hence, without in the least decrying the powers of ventilation and the virtues of air, most sensible people practise "quarantine" as well. They keep "infected" persons and clothes at a distance; and if any person becomes ill, they separate him from the rest of the family, or send him out to a lodging.

Now, we leave it to Dr. Farr to decide how far Miss Nightingale's views are consistent with his own of the existence of specific zymotic poisons; and whether he will take the responsibility of advising Hospital committees to follow her dictum, and not to isolate "infectious" cases?

Let a Hospital be as well ventilated as possible, the patients can be no more secure from erysipelas or scarlatina there, than in their own homes. A patient may be admitted with the germs of either disease in his blood, which may break out next day. Shall the patient be kept in the same ward with others? Shall a barrel of gunpowder or of petroleum be kept in a town? Of course, with "proper precaution" it may be kept with safety. The worst of it is, that human carelessness—even if a thing be possible—can never be ignored in forecasting probable results. Suppose a dead calm in hot weather, what amount of air will pass through the Hospital wards? Most practical men agree with Dr. R. D. Thomson, in a recent report, in deploring the "want of sufficient means of isolating epidemic and contagious disease in the public Hospitals."

We thus independently affirm so much as was stated by our reviewer in deprecation of an unfair use of death-rates. We object to Miss Nightingale's doctrines about contagion, as ignoring one truth in order to exalt another; and we ask Dr. Farr if it be fair to attribute to our reviewer the notions of a Levantine quarantineer, merely because he contends for those palpable facts as to contagion and infection on which all practical men are agreed? Is it worth while to use that little sneer at anonymous writers? If our reviewer attacked Miss Nightingale he would sign his name; but what he attacks are the fallacies which disfigure a valuable work—fallacies which may lead to the loss of many a life, if any one shall be found rash enough to treat scarlet fever as not infectious, because Miss Nightingale has said that "no diseases ought to be considered infectious." We would further ask him, why he comes to us for an account of the mortality of the various Hospitals? We hold no brief for them. On the contrary, we shall be but too glad to make public any results which may arouse Hospital committees from that almost criminal apathy—from that Turkish, stolid fatalism which induces them to regard death after death as arising from "inevitable infection," or from any other cause which may cloak their want of fresh air.

All this fight has been about one or two incidental matters on which we conceive Miss Nightingale to be wrong, and to have been justly criticised. As regards the whole aim and scope of her labours, and the immense value of the "Notes on Hospitals," there cannot be two opinions. She is too plain-spoken herself to object to fair criticism of its few *maculæ*.—[Ed. *M. T. and G.*]

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, January 19.

Mr. Prescott Hewett, President.

(Continued from page 131.)

Mr. Holmes showed, for Mr. Nash, of Liverpool, a specimen of

WOUND OF THE SKULL.

A woman was brought drunk to the Hospital for what appeared to be a scalp wound only, but the probe was not used. She did not attend again for three days, having been drunk all the time. A probe was then passed through a fissure into the skull. It was then ascertained that her husband had thrown a poker at her, and that, being unusually worn and sharp at the end, it had stuck in the skull. She died of cerebral abscess. In reply to Mr. Sydney Jones, Mr. Holmes said that fragments of bone came away with the discharge.

Mr. Sydney Jones then related a case in which the skull was perforated by a shovel. The patient died, but of general pyæmia, having had no cerebral symptom whatever.

Mr. Hicks showed a specimen of

ANEURISM OF THE AORTA.

The patient had had a tumour for seventeen years, which at first was the size of a walnut. It grew slowly. She had no symptom connected with it, and died of some other disease. The sac from the transverse part of the arch of the aorta had perforated the manubrium, and was filled with clot. It began as a true aneurism. There had been no bruit, and all the valves were found to be competent.

Mr. Curling then showed a specimen of

CARIES OF THE HEAD AND NECK OF THE FEMUR, AND NECROSIS OF THE SHAFT, FOR WHICH AMPUTATION WAS PERFORMED AT THE HIP-JOINT.

A child, five years of age, fell on his hip, but got up and walked home, but the same evening he had slight pain in the groin, and for weeks had inflammatory symptoms. Then an abscess formed in front of the thigh. This was opened, and a copious purulent discharge ensued. As, however, the child was suffering from the local disease, chloroform was given, an exploratory operation performed, but no diseased bone was found. The limb was not drawn up, and it was impossible to make out clearly disease of the hip-joint. Soon after, the child had measles, then troublesome diarrhœa, and the liver enlarged, and he was much reduced. The femur, too, enlarged. A second exploration was made, and yet no

exposed bone could be found. Now Mr. Curling wished to amputate, but the child was too reduced to bear it. He was sent to Ramsgate, and, having returned in better condition, Mr. Curling then removed the limb at the hip-joint. There was little loss of blood, and although at the time of operation the child was much reduced, yet he rallied, and lived upwards of four weeks. The stump was nearly healed. Miliary tubercle was found in the lungs. The liver was much enlarged. There was slight caries of the acetabulum. The upper half of the shaft of the femur was completely necrosed, and the whole head and neck destroyed by caries. As to how the disease of the hip arose from the injury, there might be two opinions; one, that the epiphysis was detached, and the other, the more probable, as the child walked after the accident, that periostitis of the shaft was the cause. That the joint was secondarily affected was an interesting feature; and in this respect the case resembled one brought before the notice of the Society by Mr. Maunder, in which acute necrosis of the tibia was followed by disease of the ankle-joint. It had been said (Mr. Curling added) that in nearly all cases of necrosis the limb could be saved; but he had witnessed several in which necrosis of the shaft had extended to the articulation, and caused its disorganisation, rendering amputation necessary.

Mr. Holmes then related a case in which an injury to the wrist at first was thought by the House-Surgeon to be Colles' fracture. The patient died of pyæmia, and it was found that the local symptoms had been due to periostitis.

Mr. Curling next showed a specimen of

RUPTURE OF THE RECTUS ABDOMINIS MUSCLE.

It was taken from a patient who died of tetanus, and the rupture was detected six days before death. This muscle (Mr. Curling said) was rarely ruptured except in tetanus. He related two other instances, and one in which the psoæ muscles were also ruptured. He had known rupture of the rectus muscle to occur in an epileptic fit, and also to result from the kick of a stallion.

Dr. Bristowe said that he had found rupture of the rectus in two patients who had died of phthisis.

Mr. William Adams had seen one of the cases referred to by Dr. Bristowe.

The President had, some years ago, seen many cases of rupture of this muscle in patients who had died of what was then called "spotted fever."

Dr. Peacock said that the late Professor Reed had drawn attention to rupture of the rectus in typhus fever.

In reply to Dr. Harley, Mr. Curling said that the muscular tissues had not been examined microscopically. One of the patients was only twenty-six years of age, and another of about the same age.

Dr. Bristowe had in one case made a microscopical examination, but had not found any disease.

Mr. Sydney Jones related a case of what appeared to be rupture of the rectus abdominis, by lifting a heavy weight. The patient was still under care.

Mr. Little showed microscopical specimens of

ENCEPHALOID DISEASE OF THE TESTIS,

from a testicle in an advanced stage of encephaloid cancer. The specimens were taken from a part of the testicle still sound to the naked eye, but in which the tubes were distended with encephaloid matter, whilst the intervening and connecting tissue was free from disease. The commencement of the disease was intra- and not inter-tubular.

Some discussion then took place as to the microscopical signs of encephaloid and other tumours.

In reference to diagnosis of the malignancy of tumours, the President made some interesting observations. Some years ago, a patient, who had an enlarged testis, was admitted under the care of Mr. Cutler. Many thought the disease was not malignant, and that mercury ought to have been tried. Mr. Cutler, however, felt so certain that it was malignant, that he thought it safer not to wait. When removed and split down, he (the President) felt certain that it was not malignant; but Mr. Gray, who afterwards examined it by the microscope, said that it was. Being very much interested in the case, he sought further opinions. He called on Mr. Curling, but did not find him at home. One Surgeon said that, by the microscopical appearance, he should say it was not malignant, but by the naked eye he should say it was; another Surgeon, exactly the reverse. Brodie thought it was not malignant, but Stanley thought it was. The patient recovered, and went home, but in eight months returned with a tumour of the other testis. This time mercury was used, and the man got well, and was, the President believed, still well.

Mr. Curling said that, after so very varying opinions, any one must speak doubtfully; yet he had scarcely any doubt but that the tumour exhibited by Mr. Little was malignant. As a rule, a malignant tumour gives rise to secondary disease of the glands, but not always. Mr. Little's patient would be under observation, and the further progress would be communicated to the Society.

Dr. Wilks said that there was every degree between what was decidedly innocent and decidedly malignant. He should call the specimen semi-malignant.

Dr. Bristowe did not think highly of microscopica. appearances as evidence of malignancy.

A specimen of

DISSECTING ANEURISM OF THE TRANSVERSE AND DESCENDING PORTIONS OF THE ARCH OF THE AORTA,

was exhibited by Dr. Peacock, which had been sent to him by Mr. C. Williams, the Resident Medical Officer of the Norfolk and Norwich Hospital. Mr. Williams stated that it was removed from the body of a man 59 years of age, a patient of Mr. J. Allen, who, while engaged in tolling a bell, gave himself a "wring," followed by pain so severe as to compel him to cease ringing. He suffered from symptoms of fever afterwards, and died suddenly on the sixth day. On examination after death, the pericardium was found distended with blood, which had escaped from a swelling of the coats of the aorta in front of the arch. On opening the vessel a rent was found in the internal coats situated immediately in front of the origins of the large vessels at the arch. From this point the blood was found to be extensively extravasated between the external and middle coats at the ascending and transverse portions of the arch, and between the layers of the middle coat in the descending portion. The separation of the coats of the vessel extended four inches down the descending aorta, and the newly-formed canal then reopened into the cavity of the vessel. The coats of the aorta were very slightly atheromatous, but the vessel was dilated; the heart was not materially diseased.

Mr. Nunn showed, for Mr. Worthington, a specimen of

FATTY TUMOUR OF THE RECTUM, SURROUNDING THE GUT, AND OBSTRUCTING MICTURITION AND DEFECATION.

The rectum, for about six inches from the anus upwards, appeared to be surrounded by, and growing from its muscular coat, a large, dense, circular, fatty tumour, the size of a child's head, which had so compressed the vagina and urethra against the symphysis pubis as almost to entirely obstruct the flow of urine, producing great dilatation of the bladder, ureters, and kidneys, the structure of which organs were much altered. This case was interesting as showing a rare form of tumour of the rectum, which had so mechanically obstructed the proper excretion of urine, as to dilate the bladder and ureters, destroy the kidneys, and end the patient's life, probably, by uræmic poisoning.

At a previous meeting, Mr. Saul brought forward a man (living) who was the subject of

MULTIPLE TUMOURS.

The patient was a man of about 50. His arms presented all over irregular nodosities, caused by the development of subcutaneous growths. There are also numerous similar growths on almost all parts of his body, but not so numerous as on his fore-arms. The tumours had existed for two or three years; they had not been painful. There was no history of hereditary liability to tumours of any kind. None of the tumours had been excised.

The President expressed a decided opinion that the tumours were fatty; and in this most of the members present seemed to agree. Mr. Nunn, however, expressed a doubt as to whether in some of them there was not a venous element.

Dr. Murchison stated that he had, some years ago, recorded a case somewhat similar of multiple fatty tumours. In this instance, three members of the same family were affected by them.

Scarcity of Bodies for Dissection in Paris.—There has been this winter a great scarcity of bodies for dissecting purposes, so that the Military Medical School at Vâl de Grace has been put to great straits to carry on the course of operations and lectures on anatomy. The opposition of the priesthood, who desire to secure the bodies for interment, has been assigned as a reason for the paucity.—*Allg. Wien. Med. Zeit.*

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MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen have passed their First Professional Examinations during the recent sittings of the Examiners :—

William Lawton Eames, Cork; Thomas Macdonald, Ross-shire; Joseph Jackson, Cumberland; James Simpson, Cumberland; Thomas Simpson, Yorkshire; James Hogg, Edinburgh; John N. O'Keeffe, County Kerry.

And the following gentlemen have passed their final Examinations, and been admitted L.R.C.P. Edinburgh and L.R.C.S. Edinburgh :—

Joseph Lindsay Kingston, County Cork; Latham Blacker M'Culloch, Drogheda; James Hinds, Notts; Patrick Callan Horan, County Cavan.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen have passed their First Professional Examinations during the recent sittings of the Examiners :—

Robert Anderson, Haddingtonshire; James Ingram, Orkney.

And the following gentlemen have passed the final Examinations, and obtained the Diploma of the College :—

John Middleton, Glasgow; James Godfrey, Glasgow; Robert Pearson Dunbar, Perthshire; William John Taggart, Antrim; Heinrich Frederik Lawats Melladew, London; Frederick Montizambert, Quebec.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, February 4, 1864 :—

Richard Wheeler Haines, Bromsgrove; Robert Wills Soper, Dartmouth, South Devon.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ALSTON, J. MONTGOMERIE, M.D. Glasgow, has been appointed Surgeon to the Summerlee Collieries, Airdrie.

BANKS, JOHN T., M.D. T.C.D., has been re-elected King's Professor of the Practice of Medicine in the King and Queen's College of Physicians, Dublin.

BUTLER, FREDERICK J., M.D. St. And., has been appointed Surgeon to the County Prison, Winchester.

CULLINAN, WILLIAM, L.K.Q.C.P.I., has been elected Surgeon to the County of Clare Infirmary.

ELKINGTON, GEORGE, jun., M.R.C.S. Eng., has been elected Junior Resident Surgeon to the General Dispensary, Birmingham.

HALL, WILLIAM, M.R.C.S. Eng., has been appointed Assistant-Surgeon to the Hospital for Women and Children, Leeds.

MORRIS, J., M.R.C.S. Eng., has been elected House-Surgeon to the Warneford Hospital, Leamington.

REED, GEORGE, M.D., has been elected Resident Medical Officer to the Manchester Royal Infirmary and Dispensary.

STOKES, Mr. WILLIAM, has been appointed Surgeon to the Meath Hospital, Dublin.

DEATHS.

GUNN, JOHN, L.R.C.S., Edin., Surgeon R.N., at Edinburgh, on February 8.

KENDALL, WALTER, L.S.A., of Budleigh Salterton, Devon, at West Lulworth, on January 27, aged 68.

PEARCE, SAMUEL, M.R.C.S. Eng., at 135, Bethnal-green-road, N.E., on February 3, aged 54.

TURNER, SAMUEL M., F.R.C.S. Eng., at Newcastle-under-Lyme, on January 5, aged 45.

WARD, ISAAC DUNLIN, M.R.C.S. Eng., at Lincoln, February 4, aged 28.

UNIVERSITY INTELLIGENCE.—UNIVERSITY OF DUBLIN.—At the Spring Commencements, held on Shrove Tuesday, in the Examination Hall of Trinity College, the following degrees in Medicine and Surgery were conferred :—*Baccalaurei in Medicinâ* :—Georgius O'Hanlon, Augustus Smith, Johannes Lyons, Alexander M'Clorg, Henricus Davy, and Johannes Knox Leet. *Magistri in Chirurgiâ* :—Alexander M'Clorg, Georgius O'Hanlon, and Augustus Smith. *Doctor in Medicinâ* :—Johannes Knox Leet.

THE UNIVERSITY OF DUBLIN *v.* THE KING AND QUEEN'S COLLEGE OF PHYSICIANS.—We are informed that the Master of the Rolls will not give his decision in the University *v.* College question until next term, viz., in April.

SIR JOHN LIDDELL, K.C.B.—The *London Gazette* of Tuesday, February 9, contains the following announcement:—"WAR-OFFICE, Feb. 9.—The Queen has been graciously pleased to give orders for the appointment of Sir John Liddell, Knt., C.B., M.D., late Director-General of the Medical Department of the Navy, to be an Ordinary Member of the Military Division of the Second Class, or Knights Commanders of the Most Hon. Order of the Bath. We heartily congratulate Sir John Liddell on his well-deserved honours.

BENEFICENCE.—The late Mr. John Farnell, the head of the firm of Farnell and Watson, brewers, who has bequeathed upwards of £22,000 to charitable objects, has not forgotten those belonging to our Profession, having left £1000 to each of the following institutions :—The Hospital for Consumption at Brompton, the Royal Orthopædic Hospital, the Asylum for Idiots, and the Cancer Hospital. The late Miss Gale, of Andover and Cadogan-place, has bequeathed to the Middlesex Hospital, £1000; to the Royal Free Hospital, Gray's-inn-road, £500; the Fever Hospital, £100; the Deaf and Dumb Asylum, £500; the Indigent Blind, £500; and to the Winchester County Hospital, £500.

ANNUAL MEETING OF THE SUBSCRIBERS TO THE BELFAST BRANCH OF THE ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.—On the 3rd inst. the stated annual meeting of the subscribers to the Belfast branch of the above Society was held in the rooms of the Ulster Medical Society, 33, High-street, Belfast. The attendance was large and influential. Among those present were—Dr. Patterson, Dr. Drennan, Dr. Cuming, Dr. Browne, R.N., Dr. Michael Magee, Dr. Keown, R.N., Dr. Whitaker, Dr. Stewart, and Dr. T. H. Purdon, the permanent president, who did not enter the room until the business of the day had commenced, and in whose absence Dr. Patterson, a warm and energetic friend of the Society, was unanimously requested to take the chair. From the statement made of the past year's proceedings, the working of the Belfast branch of this most useful Society presented much that was satisfactory, and evidenced that, as its objects became better known and understood, a larger amount of interest is being manifested on its behalf, both by the Profession and by friends outside of its pale. A number of subscriptions were announced, and the following gentlemen were elected a committee of management :—Dr. Patterson, Dr. Drennan, Dr. Moore, Dr. Thomas Reade, Dr. Cuming, Dr. Stronge, and Dr. H. S. Ferguson, for Belfast; Dr. Ross, Ballymena; Dr. Spearing, Antrim; Dr. John Moore, Glenarm; Dr. Musgrave, Lisburn; Dr. Filson, Portaferry; and Surgeon Patrick Carrickfergus, for the country.

THE MARISCHAL COLLEGE STUDENTS.—"And so, for four years, often in this public hall, but oftener still in the class-rooms where we were taught all that Marischal College had to teach, we wore the red gowns and red velvet collars which were the compulsory costume of the Students of Arts, till one early spring day we were ranged ceremoniously in the public hall, some eighteen or twenty of us who had completed the curriculum out of a class originally seventy strong, and there, clad all uncouthly in black silk gowns, which the college beadles had begged, borrowed, or stolen from the city clergy for the occasion, were made to repeat the words of a Latin oath, and, having been dabbed on the head individually by the Principal with a sacred bit of black velvet, were created and admitted Masters of Arts. When I think what *Magister Artium* implies according to the English standard, and then recollect what a flock of fledglings we were (the youngest of us exactly sixteen years and four months old) that flew off into the world from that northern nursery of learning, feathered legally with the fine designation, the thing does seem rather absurd."—*D. Masson.*

CASE OF ALLEGED POISONING.—A prolonged inquiry has recently taken place at Hayle, Cornwall, into a charge against Mr. Richard Oke Millett, a Surgeon, residing at Penpol, of causing the death of Mr. Jacob C. Millett, his brother, by poison. It is sufficient to say that a more unfounded charge was never investigated in any court of law. It must be a matter of intense regret to the prosecutor that such an accusation was ever made. Mr. R. O. Millett is entitled to universal sympathy for having been made the subject of as severe a misfortune as could possibly fall upon an innocent man. The evidence clearly showed that the death of his brother was caused by apoplexy supervening on a condition of chronic hydrocephalus. A most careful investigation made by Professor Taylor completely proved the absence of any trace of poison in the viscera of the deceased. At the close of the

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investigation, the chairman of the bench of magistrates, the Rev. Uriah Tonkin, addressed Mr. Millett as follows:—Mr. Millett, we are extremely sorry that we have been obliged to keep you so long in custody, but, sitting here as magistrates, we had no other alternative. It was our duty, as you were charged with a most sad and most grievous offence—one of the most grievous offences that human nature could be guilty of. In doing what we have done, we have done nothing but given a painstaking and earnest attention to this investigation, with continual regard to your position as well as to that of the prosecutor. The prosecutor, I may say, when he came to me, said that, even if no poison were found in the stomach, he had proof enough to authorise him to believe that the death of the deceased was occasioned by poison, and that he believed that that poison had been administered by you, and upon the faith of that statement I granted the warrant upon which you were apprehended. I am now very happy in having to say, Mr. Millett, that you are released from all further custody; and having investigated the case most minutely, and, I am sure, most fairly and with the strictest anxiety to do justice, my brother magistrates and myself have no longer anything further to do with the matter but to say that we are extremely happy that you are released from this charge. I need not, perhaps, say that the prosecutor has not made good his charge; the charge was made against Mr. Millett, and he was apprehended, but is now discharged. Mr. Millett was warmly congratulated by numerous friends, and was accompanied to his residence by a large concourse of persons; and the band of the Hale Foundry, to which establishment he was Surgeon, met in the evening in front of his house, and performed various pieces of music.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Bethnal-green.—The inquiry into Dr. Moore's conduct is not finished, and will doubtless end in the discomfiture of the Guardians.

Surditas.—It is said that the eminent aural Surgeon in question did visit an illustrious personage, and afford entire relief by his treatment of her ears.

A Commercial Traveller.—Consult the leading Physician or Surgeon in your town.

Errata.—In "First Impressions of the British Pharmacopœia," p. 155, par. 15, *for* magnesia, *read* magnesise; par. 21, *for* cow *read* cocoa.

Infanticide without Intention.—"Murder has been classed among the fine arts, coarse as a good deal of it no doubt is in practice. There are many ways of getting rid of surplus infants. It is not merely by cutting the throats of the poor little innocents as if they were pigs, or by drowning them as if they were kittens, that thousands of murders are effected. In China they go about it in a more matter-of fact and business-like way than we do; but throwing them in heaps, alive, within the precincts of a 'devil's temple,' there to perish, does not come up to our more refined and civilized and varied modes of doing the Malthusianly needful work. And, in speaking of refined and civilised operations of the sort, it is not simply meant to refer to reiterated doses of 'quietness,' and such-like drugs; nor even to ingenious processes, such as those of the talented individual who got rid of five of his superfluous progeny by various artful dodges, such as setting a tub of water, like a trap, for the unprotected little one to roll into out of bed when all were asleep, and when no one, therefore, was to blame. Perhaps the method most entitling infanticide to be regarded as a branch (we wish we could call it a dead branch) of the fine arts, is to choke them by degrees from short supplies of vital air in close apartments. This is a much more safe and artful way of 'keeping down the population' than either smothering them in bed, dosing them with laudanum, or even stuffing them with 'strong meat' in the place of milk."—*Godwin's "Another Blow for Life."*

The *Elgin and Morayshire Courier*, for February 5, contains the following too true remarks:—

"The Medical Profession, while it is laborious above all others, and also the most indispensable, is at the same time thankless without a parallel, and most inadequately rewarded. It is notorious that the doctor, whose services are of the first importance, is paid among the last of all. He may be thankful, indeed, if his fee be forthcoming at any remote period of the future, since it is no unusual thing for him to be paid off not even with thanks, but the reverse. The doctor's laborious consecration to the salvation of the human body, his weary night work, his cold journeys, his severe and anxious study, demand a better reward than this; and the public good feeling and sense of justice, in addition to what is right and fair as to substantial requital, should provide also that his services shall meet with the appreciation and gratitude they deserve. While on this subject, we may direct the notice of our readers to the table of fees agreed upon at last week's meeting of the Medical Association, and which appears elsewhere in to-day's paper. No one will deny that the charges are reasonable; but while their statement in this form is useful for the guidance of the community, it is out of the question to suppose that any market value can be put upon services which are of the kind that cannot be reckoned with money. There can be no fixed rate as to the remuneration due to superior skill and experience; but the Association have acted wisely in issuing a scale which the public conscience must acknowledge to be exceedingly moderate, and which no one can grudge for the smallest possible service rendered by the youngest member of the Profession. We observe that the Medical Practitioners of the northern districts of Aberdeenshire have also recently issued a table of fees, which, in all essential respects, is similar to that adopted by the members of the Banff and Moray Association:—

"BANFF, MORAY, AND NAIRN MEDICAL ASSOCIATION.

"*Table of Fees.*

"At a General Meeting of the Banff, Moray, and Nairn Medical Association, held at Elgin, on the 30th day of January, 1864, the following table was adopted, and ordered to be printed and circulated amongst the Members:—

"*Visits.*

	From	To
The first Visit in Town, or Advice at Practitioner's Residence	£0 2 6	£0 10 6
Subsequent Attendance, to be according to its Length and the Social Position of the Patient.		
Night Visit	0 5 0	1 1 0
Visit to the Country, at any distance not exceeding Two Miles	0 5 0	and upward
For every additional Mile, from	0 1 6	0 5 0
Night Visits to Country to be doubled.		
Every Hour that the Practitioner is detained, either from urgency of the case, or desire of the Patient or Friends	£0 2 6	0 5 0

It is understood that these fees should be paid at the time of visit, or when the attendance terminates.

Ordinary Fee for Consultation	1 1 0	3 3 0

The Fee for Consultation, or other Medical attendance, when the Practitioner is not the one regularly employed by the Family, is expected to be paid at the time of visit.

Ordinary Medical Certificate	£0 2 6	0 10 6
Lunacy Certificate	1 1 0	

"*Surgical Operations and Midwifery.*

Vaccination, Extraction of Teeth, Cupping, Bleeding, and other minor Operations	£0 2 6	£0 10 6
Operation of Hydrocele, Harelip, Tapping, Excision of Small Tumours, Amputation of Toes, Fingers, etc.	0 5 0	2 2 0
Reducing Fractures and Dislocations	0 10 6	3 3 0
Capital Operations, viz.:—Amputation, Trepanning, Aneurism, Extirpation of Mamma, Lithotomy, Lithotrity	2 2 0	21 0 0
Necessary Assistance at Operations	1 1 0	2 2 0
Delivery in Ordinary Cases	1 1 0	10 10 0
Do. in Difficult or Protracted Cases	1 11 6	10 10 0

In all cases of Operations and Midwifery, the Fee may be paid at the time, and to be independent of future visits.

Post-mortem Examination, when requested by relatives, not less than £2 2 0."

RETIRING PENSIONS FOR POOR-LAW MEDICAL OFFICERS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As the Government propose introducing a bill before Parliament this Session to enable Poor-law Medical officers whose health is broken down, or are above sixty years of age, and have served for twenty years, to retire on two-thirds of their salary, half to be paid out of the consolidated fund, and half out of the poor-rates, I think it would only be fair to all Medical officers who have served for twenty years and upwards, and who wish to resign their appointments, that they should be allowed this pension as a reward for their hard and ill-paid services, and that it should be given irrespectively of age, and paid entirely out of the consolidated fund.

It behoves, therefore, all Medical officers of Unions to address, either personally or by letter, both their county and borough representatives, to urge them to get this clause inserted in the bill.

Much, I am sure, may also be done by your powerful advocacy, through the medium of your valuable Journal, which has always been ready to aid this oppressed class of Medical Practitioners.

February 9. I am, &c. SPES.

ALCOHOLIC STIMULANTS IN FEVER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the controversy in your number of January 9, between Mr. Harding and Mr. Bayley, Mr. Harding, in mentioning my non-alcoholic treatment of fever, says, "Surely the experience of one man ought not to counterbalance that of the most eminent Physicians!" In answer, I would say, there are not usually two, but one, to make any great discovery. I claim being the one who has made the discovery of the non-alcoholic treatment of disease.

In the early part of my practice, half a century ago, if any Medical man had told me that wine or alcoholic stimuli were not necessary in typhoid or other fevers, I should have been much surprised, and as much inclined to discredit the assertion, as Mr. Harding himself; for at that period, so convinced was I of their absolute necessity in such cases, that I was wishful that the wealthy in the neighbourhood should form a wine depôt for the poor who could not procure it for themselves. It is remarkable that the first disease which attracted my particular attention was typhoid fever, and which I treated without wine, in the year 1813. I have not once given alcoholic stimulants in fever since that time.

Mr. Harding states:—"It is quite possible that the type of fever which came under Mr. Higginbottom's notice was inflammatory, and not requiring stimulants."

During the last fifty years, at different periods, fevers have been epidemic in Nottingham and in the neighbourhood; indeed, we are rarely free from typhoid fever in lower parts of the town, and it is usually of a very low type indeed, many of those attacked being females, who worked

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in overheated lace rooms, anæmic, of feeble constitutions. From my observation, the lower the type, the greater the danger in giving wine or any other alcoholic stimulant.

In the *Lancet* of August 15, 1857, I mention two epidemics. The first, in 1813, was extensive, and required half of each day to visit my fever patients, and it continued for four months. I lost no patient with my non-alcoholic treatment; two of them died, but they had wine given them by a family in the neighbourhood. The second was in 1848. Not one died under the same treatment. Other patients in the same locality, who took wine and brandy, died. There is no doubt patients often recover in fever in spite of the wine given; but it is my opinion, from long practice and observation, that the administration of alcoholic stimulants in typhoid or other fevers is always injurious, and often fatal in its effects.

I could relate detached cases, as the following:—Four patients with typhoid fever, three of them in a public-house in the lower part of the town, thickly inhabited—two daughters of the publican and their servant maid—and the other a female residing near the place. The daughters were treated on the non-alcoholic plan—both recovered: the servant was sent to the fever ward of the General Hospital—a healthy, open situation—and treated with alcoholic stimulants, and died. The neighbour was attended by a Medical man, who followed the same alcoholic treatment, and died. Such marked cases as the above occurred, and corroborated my opinion of the danger of administering in disease such an exhausting stimulant as alcohol.

I have entirely discontinued all alcoholic stimulants for the last thirty years in all diseases, being fully convinced of their insufficiency and dangerous qualities, and having proved, by abandoning their use, that patients suffering under acute disease were much more quickly restored to health, and chronic disease much more manageable. Indeed, I should consider myself criminal if I ever recommended alcohol in any form, either as food or as a medicine.

Very few of my Medical brethren have practised the non-alcoholic treatment of disease, and it is not right to condemn what they are ignorant of, not having given it a trial. I would remind such of the fit rebuke Sir Isaac Newton gave to Dr. Halley—"Sir, I have studied and practised these things; you have not."

I am, &c.

Nottingham, January 27. JOHN HIGGINBOTTOM, F.R.S.

COMMUNICATIONS have been received from—

Mr. GREGORY; Dr. W. FAIRLIE CLARKE; Mr. D. O'BRIEN; Dr. THOMAS J. WALKER; APOTHECARIES' HALL; Dr. SEWARD; Mr. H. R. MORTON; Messrs. TENNANT and RAYNER; Mr. J. W. STRIDE; Mr. S. ADAM PARKER; Mr. G. HASLOP; Mr. J. H. WARD; Dr. J. M. ALSTON; Mr. W. B. MURRAY; Dr. S. W. J. MERRIMAN; Mr. JAMES ROBERTSON; ROYAL INSTITUTION OF GREAT BRITAIN; Mr. HARDINGE; Mr. HENRY HICKS; Dr. STEWART; Mr. J. B. BARNES; Mr. JOHN WILLIAMS; ETHNOLOGICAL SOCIETY; Dr. LOWES; COMMERCIAL TRAVELLER; SPES; "A MEMBER OF THE BRITISH MEDICAL ASSOCIATION;" MEDICAL SOCIETY OF LONDON.

BOOKS RECEIVED.

The Church of England Temperance Magazine. London: Seeley and Co. New Series. Threepence, monthly.

*** There is no doubt that "total abstainers" are useful in weaning drunkards from their vice, and that for most of the latter, Dr. Johnson's aphorism holds good, that "abstinence is easy, but temperance impossible." The clergy, therefore, may largely increase their influence amongst the intemperate by setting an example of abstinence from drink. Men in the prime of life do not need alcoholic liquors, if they possess the excellent appetites which usually distinguish our brethren the clergy. We will venture to say that they should not stop at drink; and we may endorse that counsel which has been given to the younger clergy by many fathers, and notably by St. Jerome and by the present Bishop of Fredericton. They never should forget, even in the most festive moments, that a something of abstinence, or, at least, of great moderation, is demanded by their sacred calling. It should never be whispered that a clergyman is a *bon vivant*, or epicure, or *nice in his eating*, as the vulgar say. What an excellent thing it will be for society when the clergy protest publicly against those wasteful luxuries which breed disease amongst the rich, whilst they raise the price of provisions for the poor! We are all familiar with the lines in the *New Bath Guide*—

> "So, when they had wasted more meat at their breakfast,
> Than the poor of the parish had had for a week past."

Such proceedings we may expect to see put down, when the clergy follow out the principles of true temperance to their logical end. They will protest against soups in which prodigious quantities of beef, and veal, and ham have been wastefully boiled down for "stock." Those *entrées* will be silently rebuked, and pass untasted, on which the cook has lavished his truffles and condiments, and no *foies gras* will be extracted from the wretched geese of Strasbourg. In the higher ranks there are more victims to eating than to drinking; and if people did not eat of indigestible dishes, they would not be so much tempted to drink. We will not pursue what may be taken as sarcasm, although we affirm seriously that the principle of abstaining, for example sake, from the innocent enjoyment of things wherein others indulge to excess, is a principle which need not begin and end with alcoholic liquors. There is one manly and sensible paper in the magazine before us, by the Rev. Mr. Ellison, of Windsor; the rest are very poor, and more calculated to repel than to attract converts.

The Brown Book. A Book of Ready Reference to the Hotels, Lodging and Boarding Houses, Breakfast and Dining Rooms, Libraries, Public and Circulating, Amusements, Hospitals, Schools, and Charitable Institutions of London; and a Handy List, showing the nearest Post Office, Money Order Office, Cab Stand, Police Station, Fire Engine, Fire Escape, Hospital, to 1000 Principal Streets of the Metropolis. London: Saunders and Otley. 1864. Half-yearly. Price 2s. 6d.

*** The detailed title is a sufficient explanation of this useful compilation. It is supplementary to "Red" and "Blue" books in its contents.

The Preparation and Mounting of Microscopic Objects. By Thomas Davies. London: R. Hardwicke.

*** A good and practical little book, likely to be of value to working microscopists. It contains, for the most part, trustworthy formulæ and directions for preservative solutions, minute injections, and many other matters beyond the scope of systematic treatises.

Traité Theorique et Pratique des Maladies des Yeux. Par L. Wecker, etc. Tome premier. Deuxième fascicule. 8vo. Paris: Adrien Delahaye. 1863.

*** This fasciculus contains diseases of the sclerotic, cornea, iris, and choroid. It will be easily understood how many moot points of modern practice occur in the course of it. Iridectomy is illustrated by some excellent woodcuts.

Homes without Hands. By the Rev. J. G. Wood, M.A., F.L.S. Part 2. London: Longman and Co.

*** Completes the burrowing mammals and begins the birds. The illustrations are very good.

British and Foreign Medico-Chirurgical Review. January, 1864. London: John Churchill and Sons.

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 6, 1864.

BIRTHS.

Births of Boys, 1055; Girls, 1023; Total, 2078.
Average of 10 corresponding weeks, 1854-63, 1880·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	826	829	1655
Average of the ten years 1854-63	677·3	668·8	1346·1
Average corrected to increased population..	..	..	1481
Deaths of people above 90	..	..	11

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	2	2	9	5	14	9	2
North ..	618,210	3	4	18	5	19	12	1
Central ..	378,058	1	8	5	1	12	7	1
East ..	571,158	3	5	7	8	21	19	2
South ..	773,175	1	4	19	5	15	21	4
Total ..	2,803,989	10	23	58	24	81	68	10

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·025 in.
Mean temperature	37·8
Highest point of thermometer	50·0
Lowest point of thermometer	27·9
Mean dew-point temperature	33·2
General direction of wind	S.W.
Whole amount of rain in the week	0·06 in.

APPOINTMENTS FOR THE WEEK.

February 13. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m. Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Professor Frankland, "On the Metallic Elements."

15. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital 1½ p.m.; Samaritan Hospital, 2½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Lettsomian Lectures on Physiology.—Lecture I.—The Rate of Pulsation under the Influence of numerous Agencies in Health and Disease. By Edward Smith, M.D., F.R.S., F.R.C.P.

16. *Tuesday*.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ANTHROPOLOGICAL SOCIETY OF LONDON, 8 p.m. Meeting.

PATHOLOGICAL SOCIETY, 8 p.m. Meeting.

ROYAL INSTITUTION, 3 p.m. Professor Tyndall, F.R.S., "On Experimental Optics."

17. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m., Middlesex, 1 p.m.; London, 2 p.m.

JUNIOR MEDICAL SOCIETY OF LONDON (Whittington Club-house, Arundel-street, Strand), 8 p.m. Mr. J. Warrington Haward, "On the Treatment of Hernia."

18. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m., Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Professor Tyndall, F.R.S., "On Experimental Optics."

19. *Friday*.

Operations, Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. W. S. Savory, Esq., "On Dreaming and Somnambulism."

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ORIGINAL LECTURES.

LECTURES ON THE BRITISH PHARMACOPŒIA: ITS CONSTRUCTION, ITS COMPARISON WITH THE LONDON PHARMACOPŒIA, AND THE VALUE OF ITS NEW REMEDIES IN THE TREATMENT OF DISEASE.

DELIVERED AT

The Royal College of Physicians,

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Lecture III.

Mr. President,—At my last Lecture, I endeavoured to give a short account of some of the more important remedies newly introduced into the British Pharmacopœia. I shall continue this subject to-day; and not only speak of the Medicines themselves, but likewise of any of their preparations which I think of importance to be known to the Practitioner, reserving for a future Lecture my remarks on many of the new preparations of drugs which have hitherto found a place in the Pharmacopœia of this College. As the substances of which I shall have to speak are somewhat numerous, and as the number of these Lectures is very limited, I shall be compelled to make my remarks upon them as terse and practical as possible, and not attempt to go into details as to their physical characters and composition.

First, of the Salts of Silver. The only novelty among the preparations of silver is the introduction of the oxide of the metal, and the transference of the crystallised nitrate from the appendix to the body of the work. Has the oxide of silver any properties which entitle it to be placed in the Materia Medica? Let us look at its characters and composition. It is simply a compound of one equivalent of silver and one of oxygen, and its symbol is Ag_2O; the union of its elements is not very strong, a red heat being sufficient to cause the reduction of the silver to the metallic state. It is insoluble in water, but readily dissolved by acids; and, when introduced into the stomach, soon becomes absorbed into the system, probably as the chloride.

It differs from the nitrate in being much less caustic; and hence its topical action is by no means so energetic. Nevertheless, when taken internally, it exerts, in certain irritated conditions of the mucous membrane, a well-marked sedative influence; and, from my own experience, I can confidently assert that it is a remedy of great value in many forms of gastric disturbance. Furthermore, there can be little doubt that, in cases where the absorption of silver into the system is desirable, this preparation offers many advantages. It has been stated to have proved useful in some forms of hæmorrhage; and could not fail to be efficacious in those nervous affections in which the nitrate of silver has been ordinarily administered. It has been occasionally asserted that the oxide of silver possesses an advantage over the nitrate, in not causing the darkening of the skin. I certainly never heard of a case in which this symptom has manifested itself during the exhibition of this remedy; but I do not for a moment suppose but that the oxide, if continued for a lengthened period, would induce the same discoloration as the nitrate. We can hardly conceive the contrary, for both the nitrate and oxide are reduced to the same state in the stomach before absorption ensues. We must remember that the coloration of the skin, which is due to the reduction of the oxide and the deposition of metallic silver, is an effect which never ensues until the nitrate has been taken for several months; and I doubt if there are many instances on record of such a prolonged administration of the oxide of silver.

The dose of the oxide of silver is from a quarter to a half, or even one grain, and it is, perhaps, best given in a very simple form, as with crumb of bread. When united with certain organic substances, the silver becomes reduced, and there is one remedy with which it is peculiarly incompatible, and with which it is not unlikely to be prescribed in stomach affections. I allude to creosote. When these two bodies are mixed together, the creosote becomes oxidised; great heat and even flame may be produced; and I am informed that pills thus composed have undergone combustion upon the druggist's counter.

A remedy under the name of Bela, or Bael, is contained in the Materia Medica, which consists of the dried, half-ripe fruit of the *Ægle Marmelos*, a tree belonging to the natural order *Aurantiaceæ*. The characters of this drug, which you will see in this specimen, I had occasion to mention in a former Lecture, when giving examples of the manner in which the first part of the Pharmacopœia is constructed.

One preparation only is introduced—a liquid extract, of which each fluid ounce is intended to contain the valuable properties of a solid ounce of the Bael.

Bael has been much used in India—in fact, it is commonly called Indian Bael. I believe it was introduced into this country chiefly by those who had employed it abroad.

Its chemical composition has by no means been accurately determined; it contains some astringent principle, probably more or less allied to tannic acid.

As to its use, I have only to remark, that in India its repute stands high in the treatment of chronic diarrhœa and dysentery. My own experience of its powers is very slight, scarcely worth mentioning. I have, however, known it to fail, and gallic acid and opium to have been afterwards successful.

Of Belladonna I have but little to remark, excepting that the root of the plant has been introduced, and a liniment, termed "Linimentum Belladonnæ," ordered to be made from it, and that the sulphate of atropine is omitted. Perhaps, however, it may be well to say a few words concerning these changes.

That Belladonna and its alkaloid, atropine, possess the power of producing a topical influence, independent of any appreciable general symptoms, may be readily demonstrated from their effect when applied to the eye; for if such application be made with any moderate amount of the drug, the pupil of that eye only with which it comes into contact becomes affected. That its action is often simply local can be further shown from the fact that, although it usually requires as much as one-thirtieth of a grain of atropine administered internally to produce an appreciable effect upon the pupils of the eyes, yet, when applied topically, as I have repeatedly seen, the effect is produced by a millionth and even half a millionth of a grain. We have also abundant evidence, from clinical experience, that Belladonna acts topically in allaying pain, as frequently witnessed in cases of pleurodynia and other neuralgic affections.

As a topical agent, the tincture of the Pharmacopœia produces little effect, owing to its want of strength; the extract, to say the best of it, is a disagreeable and dirty preparation, and the alkaloid atropine very expensive. To remedy these evils, the Belladonna liniment has been introduced, made by percolating the dried root, and using such proportions of rectified spirit and powdered root, that each fluid part of the liniment represents the activity of the solid part of the drug from which it is prepared; a little camphor is added to give it the characters of a liniment rather than a tincture, and to increase its stimulant properties. Belladonna liniment has the colour of sherry wine, and forms a clean, and, I believe, efficacious local application in cases in which the topical influence of Belladonna is desired. It may be interesting to you that I should give some information as to the strength of this new liniment in comparison with the tincture of the Pharmacopœia. The method by which I ascertained this point was to observe the amount of dilution which the two preparations would bear before a drop applied to the eye began to show evidence of losing the power of dilating the pupil. In the case of the tincture, which is almost the same strength as the London preparation, I found it would bear dilution in the proportion of one part of the tincture to 200 of water; but when the liniment was made use of, one pint of it could be diluted with as much, or even more than 2000 parts of water, before it exhibited any want of dilating power; so that we may conclude that the latter compound is quite ten times more powerful than the former. Its elegance, strength, and inexpensiveness compared with atropine are the chief qualifications of Linimentum Belladonna, and it will doubtless become a favourite remedy for the alleviation of pain.

The Sulphate of Atropine has been omitted, partly from its not being required, partly from the salt not being a very satisfactory one in a pharmaceutical point of view, from the difficulty of crystallising it. Atropine itself forms very definite and beautiful crystals, and a solution of it, under the

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name of Liquor Atropiæ, has been introduced, each fluid ounce containing four grains of the alkaloid; and the solution, more or less diluted, will form a convenient preparation for the ophthalmic Surgeon.

I may take the present opportunity of showing a fine specimen of the fresh Belladonna root, which has been procured and kindly sent me by Mr. Squire.

From the natural order *Gentianaceæ* a new bitter has been made officinal under the name of Chirata, and consisting of the entire plant of *Ophelia chirata*, which grows in the northern parts of India. The English name is Chiretta. Of this drug an infusion and tincture are ordered in the Pharmacopœia.

Of the value of Chiretta as a therapeutic agent I have little to remark: it contains a bitter principle, not unlike that contained in Gentian root, and but very little volatile oil; hence the taste of Chiretta has more of the simple intense bitter than the latter substance. It is a common remedy in India, and takes the place in that country of Gentian. It is a valuable stomachic, and is especially useful in forms of atonic dyspepsia, the result of too free living and indulgence in the use of alcoholic beverages. The dose of the tincture is from half a drachm to one drachm; of the infusion, from a fluid ounce to an ounce and a-half.

The dried fruit of a menisperm, the *Anamirta cocculus*, growing in Malabar and in the islands of the Eastern Archipelago, and commonly known by the name of *Cocculus Indicus*, has found a place in the British Pharmacopœia under the name of Cocculus.

The chemistry of this substance is not devoid of interest; the seed, which in good fruit should fill at least two-thirds of the shell, contains a non-nitrogenised, crystalline principle, picrotosine, $C_{10}H_6O_4$, and in the shell there is an alkaloid menispermine, $C_{18}H_{12}NO_2$, united with an acid.

There is but one preparation in the Pharmacopœia, Unguentum Cocculi, made by rubbing up 80 grains of the powdered seeds with an ounce of prepared lard. Picrotoxin is a principle possessing some considerable power, and appears to give to the seeds of the fruit their poisonous properties.

The action of Cocculus is evidently directed to some part of the nervous system, possibly the corpora quadrigemina and cerebellum; at any rate, animals under its influence lose the power of controlling their movements. Probably many of us have seen its action upon fish, how they turn on one side and are unable to swim; the higher classes of animals, as birds and mammals, are similarly influenced by Cocculus, or its principle, picrotoxin. The effect of the drug upon man has been but little studied, although from the large amount imported, and the small quantity which is used in a legitimate manner, it is more than probable that many are unconsciously affected by it. When in malt liquors, it appears to produce an unwillingness to move, perhaps a partial inability, without the ordinary symptoms of intoxication; so that the individual becomes desirous of remaining where he is, but still able to drink more. In large doses it is poisonous, not only to the vertebrate, but to the invertebrate animals also.

As to its therapeutics: I believe it has never been employed except as an external agent in obstinate cases of skin disease, as tinea capitis; it is also used for destroying pediculi. There is one precaution to be taken, which is never to use it to an abraded surface; death has resulted from absorption.

Considering that heavy penalties are imposed upon certain manufacturers for having the article in their possession, and upon the druggist for selling it to them, and, moreover, that as yet it has not been shown to be superior to many other external applications, it cannot but be regretted that it should have found a place in the British Pharmacopœia. It would, nevertheless, be interesting to examine the action of picrotoxin upon the nervous system, as possibly it may possess powers capable of being applied advantageously in practice.

Although introduced many years since into practice, and inserted in the last edition of the Dublin Pharmacopœia, Cannabis Indica, or Indian Hemp, is now for the first time made officinal in England. It consists of the flowering tops of the female plant, Cannabis Sativa, strongly imbued with a resinous exudation; and it is to this resin, which is only produced when the plant grows in warm climates, as India, that the Hemp owes its powers as a remedial agent. As you will observe in the specimens, the drug consists of the tops of the plant, including flowers, fruit, and smaller leaves matted together by a resinous substance, having a powerful and peculiar odour, and a dark green colour.

Of the composition of the resin nothing very definite is known, saving that it possesses many of the properties of other resinous substances.

Two preparations are contained in the Pharmacopœia,—an alcoholic extract, and a tincture made by dissolving the extract in rectified spirit, in the proportion of nearly 2½ grains to each fluid drachm.

Although Indian Hemp has been used in medicine for several years, a thorough investigation of its physiological action and therapeutic qualities is still a desideratum. That its effects are exerted upon the brain is manifest from the fact, that when given in large doses it causes delirium, and in smaller ones an exaltation of the mental faculties; and for this latter purpose it is so largely employed by Asiatics, under the form of hachish. In this respect it resembles somewhat closely the preparation of certain solanaceous plants, as belladonna, strammonium, and hyoscyamus. It, however, differs from these remedies in not causing dilatation of the pupil when administered internally or applied to the eye itself. Its action as an anodyne appears to be well established, and neuralgic pains are often greatly benefited by its exhibition; in some cases, when the dose is carried high, a sensation of numbness has been stated to be produced. Its powers as an antispasmodic are also pretty well made out. I have never found any direct soporific effects from Indian Hemp; although in some cases of wakefulness, arising from an over irritable state of the nervous system, it has allowed sleep to ensue. It would appear, then, that Cannabis Indica exerts its influence both on the brain and spinal cord; but of the nature of this influence, when compared with that of many other narcotics, we are at present ignorant. It differs in many important respects from opium, and most advantageously, in not causing the constipation, loss of appetite, and many of the other discomforts which arise from the use of that medicine.

The dose of the Extract of Indian Hemp is from a quarter to one grain, or more; of the Tincture, from ♏v. to ♏xx. It is of great importance that it should be of good quality, and much that is comparatively inert has, at times, been sold. It should also be remembered that, when mixed with water, the resin is precipitated, and is apt to be slowly deposited on the sides of the bottle. A little spirits of ammonia causes it to be held in solution.

An uncrystallisable substance, considered to be the active principle of Digitalis, has been placed in the Materia Medica; it is called Digitalinum, or Digitalin; it occurs, as you will observe, in greyish white scales, is very sparingly soluble in water and ether, but readily dissolved by spirit. Although rendered soluble by acids, it has no power of neutralising them, and, chemically considered, is an indifferent or neutral body.

Physiologically and therapeutically, digitalin appears to possess the powers of the plant itself, but it is stated to be 100 times more powerful than the dried leaf. I have no experience of its action; but, from its want of crystallising power, which renders it doubtful if it be a pure principle; from the readiness with which it may be adulterated, and the difficulty of detecting admixture; and, likewise, from its extreme activity when pure, I cannot look upon it as a remedial agent which it would be difficult to dispense with.

The dose of Digitalin which may be given with perfect safety is from one-fiftieth of a grain upwards.

I mention *upwards*, because you are aware that Digitalis, although looked upon as a very potent remedy, can be given in doses very much larger than is usually supposed. At the very commencement of my Medical studies,—now twenty-eight years since—I became familiar with the administration of Tincture of Digitalis in quarter, half, and even ounce doses, given at that time in phthisis with the view of diminishing the rapidity of the pulse; and also after operations, with the idea of preventing the supervention of inflammation. Within the last few years the use of large doses of Digitalis has been revived; and the late Mr. Jones, of Jersey, employed them successfully in the treatment of delirium tremens. To his paper I must refer you. In a few cases of that disease I have made trial of the remedy, and am convinced that, where the malady is uncomplicated with inflammation of the brain structures, it is a most potent and satisfactory mode of treatment. About two years since, I suggested to my friend, Dr. Lockhart Robertson, the probability of large doses of Digitalis proving of value in acute mania. He has acted upon the suggestion, and recently published his results, which appear to be highly satisfactory. The real value of Digitalis as a remedy requires and merits a further searching clinical inquiry.

(To be continued.)

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COURSE OF
LECTURES
ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D.,
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LECTURE II.

GENTLEMEN,—Having seen how the quantity of liquid excreted by the kidneys varies, not only relatively at each micturition, but absolutely during the whole twenty-four hours, I have next to point out to you how the relative and absolute amount of solids excreted also varies, and call attention to the causes which induce the variations.

The solids consist of all that remains behind when the aqueous part of the urine is driven off by evaporation. They appear in the form of a brown-coloured, strongly-scented, bitter-tasted mass, which, on analysis, is found to be composed of acids and bases, organic as well as inorganic. Normal human urine contains the following :—

	Acids.	Bases.
Inorganic	Hydrochloric.	Ammonia.
	Sulphuric.	Soda.
	Nitric.	Potash.
	Carbonic.	Magnesia.
	Phosphoric.	Iron.
	Fluoric.	Lime.
Organic	Uric.	Urea.
	Hippuric.	Urohæmatin.
	Oxalic.	Creatinin.
	Lactic.	Resin.
	Malic.	Fat.
	Phenylic.	Albumen.
		Mucus.(b)

It was previously said, that the kidneys act the part of safety-valves to the system, in regulating the amount of fluid in the circulation; they might with equal justice be called the "scavengers" of the frame, for not only do they eliminate the normally *effete* elements of the tissues, but also all foreign and noxious materials that chance to have found their way into the circulation. Hence it is, that we occasionally find a variety of substances in the urine, many of which cannot have played any part in the processes of life, as they are expelled from the circulation almost as rapidly as they are absorbed. Ferrocyanide of potassium, for example, has been detected in the urine within two minutes after it was taken into the stomach; and many mineral and vegetable poisons are to be found in the urine within a very brief period after their admission into the system.

As regards Sediments, I may here state, once for all, that no spontaneous deposit takes place in normal urine within twenty-four hours after being voided. The only thing which is at all visible to the naked eye is a small quantity of mucus, which appears after six or seven hours as a white hazy cloud, suspended (not deposited) in the clear transparent urine.—Fig. 5. For the purpose of demonstration, the mucus cloud is here represented much more distinct than natural; it ought only to be visible, and nothing more.

FIG. 5.

Whenever, therefore, any kind of deposit spontaneously forms within twenty-four hours, the urine may be regarded as abnormal. Either the proportion of some one or other of its solids is too great, or the proportion of its water is too little.

The effect of a mere diminution of the aqueous particles of the urine is easily rendered apparent, by simply concentrating a little of a perfectly healthy specimen. If, as soon as it is reduced to about one half of its bulk, it be placed aside to cool, a number of its solids will be precipitated in a crystalline form, the characters of which can be readily recognised by the aid of a microscope. This fact we occasionally turn to practical account when searching for substances which, like leucin and tyrosin, are only crystallisable in concentrated solutions.

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—ED. *Med. Times and Gaz.*

(b) Some authors add to these bases manganese and creatin, and, to the acids, taurylic, damolic, and damaluric; but they are so rarely found in healthy urine, that they scarcely deserve being noticed.

PHYSIOLOGICAL AND PATHOLOGICAL CONDITIONS INFLUENCING THE EXCRETION OF URINARY SOLIDS.

There are several physiological as well as pathological conditions which cause the absolute quantity of solids passed in the twenty-four hours to vary in different individuals, and even at different times, in the same individual. In consulting books on the urine, you will be struck with the apparent discrepancies of French, English, and German writers as regards the quantity of solids passed by healthy individuals. Thus, an adult male on a mixed diet is said to pass on an average the following amounts :

	Amount of Solids in Twenty-four Hours. grammes.	grains.
Frenchman (Becquerel)	39·52 =	612·56
Englishman (myself)	53·00 =	821·50
German (Lehmann)	67·82 =	1051·21

Paradoxical though it appears, each of these statements is in itself correct, the variance being simply due to the national peculiarity of the individual; not that the French, German, and English constitutions are essentially different, but on account of the modes of life, and especially the diet of the individuals, being different. For example, Frenchmen take much vegetable, and little animal food, and what animal food they take is not of the most nourishing kind; first, because it is originally inferior; and secondly, because, in order to make it palatable, it is submitted to a complicated process of cookery, which still further decreases its nutritive value. Englishmen, on the other hand, eat moderately of both vegetable and animal diet; while our German *confrères*, on whom the experiments have mostly been made, contrary to their own opinions, eat largely of all foods.(c) In order to show you that this is no imaginary statement, and that diet does exert the influence here attributed to it, I shall quote to you the results of an experiment made by a German (Lehmann) on himself :—

Diet.	Solids in Twenty-four Hours' Urine. grammes.	grains.
Animal	87·44 =	1355·32
Mixed	67·82 =	1051·21
Vegetable	59·23 =	918·06
Non-nitrogenised	41·68 =	646·04

Here is at once seen the immense influence diet exerts over the amount of solids excreted by the kidneys. They are, it will be observed, increased by an animal, diminished by a vegetable, and still further reduced by a non-nitrogenised diet; and this, you will remember, is a precisely similar result to that noticed regarding the effect of diet on the quantity of liquid voided in the twenty-four hours. Curiously enough, the same rule holds good regarding the effect of drink on the solids; for, just as the amount of solids taken into the stomach influences the quantity of water eliminated by the kidneys, so the amount of water taken into the stomach influences the amount of solids excreted by the kidneys.

For a long time, Lecanu denied that with an excess of drink there was an augmentation of solid matter passed with the urine; but the researches of Winter, Vogel, and others, have placed the fact beyond a doubt. To me it appears quite natural that it should be so; not because I imagine that the fluids drunk augment to any great extent the metamorphosis of the tissues, but because, by increasing the quantity of fluid in the intestines, more food is dissolved, and consequently more solid matter absorbed into the circulation, and the excess beyond what the wants of the system require is excreted by the kidneys.

This view is founded on the result of an experiment made by Kierulf, who found that, after injecting water directly into the circulation, the solid matters of the urine were very little increased, although the urine became albuminous. Whereas, had the water which was injected directly into the blood been administered by the stomach, the urinary solids would have been proportionally augmented. Of course, no one would seek to deny that an excess of water in the circulation accelerates, to some extent, the metamorphosis of the tissues; all that it is desired to prove is, that this is neither the only nor the chief cause of the augmentation of the urinary solids after the free use of liquids.

(c) As a nation, the Germans are much worse fed than the English; but the students and Professors, on whom the experiments on healthy urine have been made, are a striking exception to this rule, as any one who has sat at a German *table d'hôte* must have observed.

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It must be borne in mind that the foregoing remarks have only reference to the amount of solids eliminated in the twenty-four hours; for the proportion of solid matter excreted at each micturition is, in reality, reduced after free drinking. This is easily understood when we remember that there are three kinds of urine passed during the day,—the urina sanguinis, urina potûs, and urina cibi,—and that these differ in specific gravity; the difference being due to the variable amount of solids they contain. For example, if there are 46·6 grammes of solids in every 1000 cubic centimetres of the twenty-four hours' urine, possessing a specific gravity of 1020, there will be in every

Cubic Centimetres.	Specific Gravity.	Grammes.	Grains.
1000 of urina cibi	1025	58·25 =	902·87
,, ,, sanguinis	1017	39·61 =	613·95
,, ,, potûs	1009	20·97 =	325·03

So that when we speak of the drink augmenting the urinary solids, we mean augmenting the total quantity excreted in the twenty-four hours.

Influence of Age and Sex on the Urinary Solids.

Age has evidently an important influence on the urinary solids; and although as yet few observations have been made on this point, they, nevertheless, all tend to one conclusion, namely, that children excrete, proportionally, more solid matter than adults. For instance, I found that, while a female child, aged 18 months, excreted 0·58 grammes (8·99 grains) for every pound of her weight, the mother, aged 27 years, living under the same conditions, excreted little more than half that amount (0·31 grammes = 4·80 grains) for every pound of hers.

Mother, aged 27 *; weight,* 140 *lbs.*

	First Analysis.	Second Analysis.	Third Analysis.	Total Average.	Solids per lb. of bodily weight.
	grammes. grains.	grammes. grains.	grammes. grains.	grammes. grains.	grammes. grains.
Total solids in twenty-four hours	45·64 = 707·42	43·94 = 681·07	43·66 = 676·73	44·41 = 688·35	0·31 = 4·80
Organic substance	31·73 = 491·81	32·04 = 496·62	33·78 = 523·59	32·51 = 503·90	0·23 = 3·56
Inorganic salts	13·91 = 215·60	11·89 = 184·29	9·87 = 111·98	11·89 = 184·29	0·08 = 1·24

Female Child, aged 1½ *year; weight,* 21 *lbs.*

	Average of First and Second Analysis, calculated on Forty-eight Hours' Urine.	Third Analysis.	Total Average.	Solids per lb. of bodily weight.
	grammes. grains.	grammes. grains.	grammes. grains.	grammes. grains.
Total solids in twenty-four hours	12·40 = 192·20	12·04 = 186·62	12·22 = 189·41	0·58 = 8·99
Organic substance	7·42 = 115·01	6·59 = 102·14	7·00 = 108·50	0·33 = 5·11
Inorganic salts	4·98 = 77·19	5·44 = 84·32	5·21 = 80·75	0·24 = 3·72

The influence of sex is no less remarkable than the influence of age, as is seen by the subjoined table, representing the average relative proportion of organic and inorganic salts daily eliminated by an adult English man and woman. The table is made from an average of four analyses:—

In Twenty-four Hours' Urine. Average weight, 140 *lbs.; age,* 25 *years.*

	Males. grms. grains.	Females. grms. grains.
Total solids	53·00 = 821·50	44·50 = 689·75
Organic	36·60 = 567·30	31·00 = 480·50
Inorganic	16·40 = 248·70	13·50 = 209·25
Solids per lb. of bodily weight	0·37 = 5·73	0·35 = 5·42

Women, it appears, therefore, excrete, both absolutely and relatively, less solid matter than men.(d)

Influence of Pregnancy.

Of all physiological conditions, that of pregnancy has the greatest effect upon the daily excretion of solid matter by the kidneys. The following observations were made on a primapara, aged 26 years:—

Period of Gestation.	Total Solids. grms. grains.	Organic. grms. grains.	Inorganic. grms. grains.
Two months and a-half	57·99 = 898·84	42·88 = 664·64	15·11 = 234·20
Fifth month, ten days after quickening	57·61 = 892·95	40·55 = 628·52	17·06 = 264·43
Seventh month	45·64 = 707·42	31·73 = 491·81	13·90 = 215·45
Ninth month, three days before delivery	43·94 = 681·07	32·04 = 496·62	11·89 = 184·29

Here it is clearly seen, that the nearer we approach delivery the less solids are excreted, and there can be little doubt but that this arises from the fact, that the more developed the fœtus the more nutritive material it withdraws from its mother's circulation, and consequently the less remains to be excreted by the kidneys. It is to be remembered, too, that the effete products of the fœtal tissues are not directly returned to the maternal blood to be excreted along with her own, but are eliminated by the fœtal kidneys in the shape of urine, which is expelled from its bladder into the liquor amnii. This is, in fact, the true explanation why urea is so often detected in the amniotic fluid.

(To be continued.)

(d) Parkes gives the mean solids at 61·14 grammes, 945 grains; but this arises from his including the high average of the Germans.

ORIGINAL COMMUNICATIONS.

CASES OF EPILEPSY, CONVULSIONS, GIDDINESS, ETC.

PART OF A SERIES ILLUSTRATING AFFECTIONS OF THE NERVOUS SYSTEM, OF ORGANIC AND INORGANIC ORIGIN, WITH CLINICAL AND PATHOLOGICAL OBSERVATIONS.

By JOHN W. OGLE, M.D., F.R.C.P.,
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(Continued from page 641, vol. ii., 1863.)

Case 82.—Jane C. A. A., aged 1½ year, a previously healthy child, who had never been the subject of any convulsive attacks, had been severely scalded about the upper part of her body, and was admitted into the Hospital in a state of collapse. Wine and ammoniated salines were ordered. In the course of the following night a convulsive "fit" occurred; but on the morning following the child appeared quite free from its effects, and was without pain. She continued in all respects to go on well for some days. On the 23rd, however, a second convulsive attack took place during the night, and again the child went on well. On the 27th, several convulsive attacks occurred, and on the 28th she was in a semi-comatose state. She swallowed food from time to time, but gradually sank and died, without any special symptoms referable to disease in the cranium or any internal organ showing themselves. (a)

On post-mortem examination the cranial veins and siruses were found to be very full of blood, and a large quantity of serous fluid existed beneath the arachnoïd membrane generally. Moreover, a considerable amount of extravasated blood was found among the subarachnoïd tissues covering the upper and outer side of the right cerebral hemisphere. The same was found, though to a slighter degree, at a corresponding part of the left hemisphere. Again, numbers of minute dots of extravasated blood were found in the subarachnoïd textures covering the whole surface of the cerebellum. On dividing the substance of the brain it was found that the grey matter of both cerebral hemispheres, where corresponding with the extravasated blood before described, was unusually

(a) See "Hospital Post-mortem Book," 1853, page 48.

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pink, and much softened. This softening extended half an inch in depth from the surface of the brain. The right hemisphere of the brain was, throughout, more vascular than the left one. The heart was healthy, and also the lungs. A slight quantity of muco-purulent fluid was found in the bronchial tubes. All the abdominal organs were quite healthy.

Case 83.—James K., aged 10, with dark eyes and hair, irregular decayed teeth, and head somewhat large (measuring twelve inches over the vertex from ear to ear, and twenty and a-quarter round the head over the occipital and frontal protuberances), became an out-patient under my care on February 17, 1862. He was intelligent, and had talked at 2 years of age, and walked at 5 years; but when teething at 2 years of age had had "some sort of a convulsion." No more attacks had appeared until 1860. Moreover, in 1859, he had measles and sore-throat, followed by a discharge from both ears, which left off after four months' continuance. In 1860 he began to have frequent fits, which mostly occurred during the day. During the attacks he became very dark in the face, or very pale, and foamed at the mouth, but did not bite the tongue; and lost consciousness for several minutes. He generally stiffened all the limbs, clenched the hands, and firmly closed the teeth, the face and eyes being drawn to the left side, and the right leg and arm being drawn upwards. Immediately before the fits occurred he would often make half a circle backwards (always from left to right), and then stagger and fall. On some occasions, his mother said, he had "turned three times on his right leg" before falling. After the attacks he would generally sleep soundly, and subsequently feel great lassitude. He never had any distinct warning or premonitory symptom of the attacks, such as pain, etc. The bowels were generally costive. No intestinal worms were known to exist. When first seen as a patient, the pupils were dilated, acting tolerably well, and equal in size. The tongue was clean. There was slight congestion of the conjunctivæ. The pulse was feeble. Urine free from albumen. Ordered the syrup of iodide of iron and cod-liver oil twice a-day, and the "mistura gentian co." from time to time. Subsequently he took the "mist. ferri co.", and "extract belladonnæ" for two months. For several weeks he had a number of strong fits, often many in one day, and complained of being always worse when he was prevented going out to take exercise. He never suffered pain either before or after the attacks. At the beginning of May, his mother said that during the attacks the "face would sink" on to the chest, and he would "subside on to the ground" whilst in a sitting posture. After the sleep which followed the attacks he would get all right again. His mother also in May stated again, that before falling on his face in the attacks, as he often did, he would "go round three times." At this period he took the "liquor gallii alb." for a month. In June, the attacks in the night were bad, and it was noticed that the evacuations were very light in colour. Small doses of hyd. c. creta, followed by senna wine, were given, and also the nitrate of potash and extract of taraxacum. The attacks were still, however, very frequent and severe, and he discontinued attendance at the Hospital, and was attended by Mr. C. Hunter, of Wilton-place, at his own house, owing to pain in the head and coma which came on. Mr. Hunter has informed me that when he was called to attend him in June he had "fits" every half hour, that the eyes were red, the head hot, and the pulse very rapid, and that he was treated with calomel and opium, then with calomel alone, leeches to the temples, cold to the head, which was shaved, and aperients. Subsequently the muscular spasms became more restricted to the neck and face, and gradually ceased, so that on July 8 there had been no fits for eight days, and none recurred afterwards. Ever since he has remained quite free from anything like epilepsy, or other symptoms of any affection of the nervous system. I saw him at the end of October last, and ascertained that he had remained perfectly well since July, 1862, and was apparently in rude health and good spirits, having grown much.

Case 84.—Elizabeth M., aged 6 years, always a delicate child, for five days previously had been affected by short attacks, in which she turned quite pale, as if fainting, and lay insensible, with slight jerking of the whole frame. There had been about three attacks each day. She had never had any of them before. Two years previously she had had whooping cough.

Thinking that possibly intestinal worms, or other irritation of the stomach or bowels, might exist, I cleared out the bowels by calomel and scammony powder, and gave her small doses of bicarbonate of potash and chloric ether in the infusion of orange peel.

No ascarides were passed, though the bowels were emptied several times, and in such a way as to show that fæcal matter had been long accumulating.

Subsequently, small doses of the ammonio-citrate of iron and the aromatic spirits of ammonia were given, and the aperient powders occasionally. At the end of three or four days' treatment the seizures complained of had quite disappeared, and at the end of one month the child was discharged as quite well.

Case 85.—Henry J. D., aged 11 months, during the period that he was "cutting his teeth," was affected by a dry cough, attended by "spasmodic inspiration." This had been going on for some weeks. He was somewhat delicate in look, but of healthy family. Ordered the syrup of iodide of iron, twenty drops, along with a teaspoonful of cod-liver oil twice a-day, and, with the expectation that possibly there might be ascarides in the bowels, a dose of the compound scammony powder.

No worms were voided; and at the end of three weeks, during which time the remedies were continued, it was reported that the spasmodic inspiration was very greatly diminished both as regarded frequency and intensity, and this was especially so at night. It continued, however, in some degree. At the end of seven weeks the report was that all spasm had entirely ceased. The medicine was continued, and another of the scammony powders given, but without the effect of evacuating any worms. Two weeks later there was a slight return of spasm, the steel wine was given three times a-day, and the bowels kept gently open with castor oil. He was discharged as being quite well after a short time.

Case 86.—John P., aged 3 years, had a cough for seven days, and was cutting the lower molar teeth on the right side. Some days previously he had vomited his food, and this vomiting was followed by fever and thirst; on the next day he had several severe attacks of convulsions, with intervals of great drowsiness; he had also pain in the chest and dyspnœa. He had taken "powders" of some kind or other.

He was admitted into the Hospital (b) in a comatose state, with closed eyes, the face very pale, and the pulse weak. Leeches were applied to the temples. On the following day the eyes were opened, and he was conscious, complaining of great pain in the chest, and his breathing was "short and laboured." There was much thirst, and the pulse was weak. The gums were ordered to be lanced. He went on tolerably well for four days, when he again became comatose, and was constantly moaning.

Two days later he was again sensible, but much weaker. He gradually sank, and died on the thirteenth day after admission.

On post-mortem examination, the lower parts of the lungs were found in a state of grey hepatisation, and to contain several small abscesses. The brain was found to be quite healthy, and the other organs of the body free from any disease.

Case 87.—James B., aged 45, a wheelwright, otherwise healthy, had been for two years subject to frequent headaches, and a confused, giddy feeling about the head, which made him constantly think that he was "about to have a fit." The bowels were regular; the urine clear, and free from albumen. The pulse was 68, and regular, but feeble. There was nothing observable about the muscles of the face, the eyes, etc., and there was no symptom of defective sensibility or motion in any of the limbs. Various modes of treatment had, apparently, been resorted to without success.

Ordered, emplast. lyttæ nuchæ; and the liquor hyd. bichl., ʒss; liquor potassæ, ɱxx.; tinct. cinch. co., ʒj.; decoct. cinchonæ, ad ʒiss. bis die.

At the end of two weeks the patient said that he had experienced great relief from the blister. The pulse was still very weak.

He continued taking the medicine for six weeks, only varied by occasional aperients of colocyth and calomel, and of rhubarb and magnesia, as he complained of irregular action of the bowels, and of symptoms which he termed "bilious;" but throughout his attendance the tongue remained clean. At the end of six weeks the patient was discharged as free from headache, and also from any unpleasant, giddy, or other sensations.

Case 88.—Henry P., aged 36, an irregular and intemperate man, was admitted into St. George's Hospital August 1, 1849, affected by jaundice, which had been preceded by sickness and vomiting. For two or three days before admission he had been "wandering" in his mind. He had not been the

(b) See "Post-mortem and Red Book," 1847, p. 96.

subject of any spasmodic affection up to 12 years of age (excepting certain convulsions as an infant), until a few days before his admission, when he had an attack of epilepsy, during which he bit his tongue, and lost consciousness for a period of several hours. Before admission into the Hospital leeches had been applied, and he had been salivated.

On admission it was found that a large tumour of the liver existed, and that blood was being passed by the bowels. The urine contained a quantity of yellow colouring matter; the bowels were much confined, etc.

Salines and purgatives were given, and leeches applied to relieve pain and feeling of tension over the region of the liver.

He had a second epileptic fit in a few days, from which he recovered well; but a third one came on, and he sank and died August 8.

On post-mortem examination, (c) the left side of his liver was found to be the seat of a large hydatid cyst. The heart's cavities were dilated; the lining of the heart and of the pulmonary vessels was much blood-tinged. The cranial bones were thickened, but the brain was quite healthy in structure; the cerebral vessels somewhat congested. The dura mater was tinged of a yellow colour. The other organs were natural.

Case 89.—Elizabeth H., subject to epileptic attacks for nine years, an elderly woman, whose mother and father and three brothers had died of fits, and whose grandson had fits, which began when he was 18 years of age. The attacks were generally at night, and were preceded by a feeling as if she was standing on her head, which lasted about a minute or two. Latterly she had been insensible for some time during the fits, and once or twice for some days afterwards. During the attacks there was no screaming and no struggling, merely a slight "catching" of the limbs, and some rattling in the throat. The intellect was generally good, but at times there was a degree of "wandering." Occasional deafness existed, but the senses of smell and taste were natural. There had been a degree of dysphagia at times ever since the first fit happened. Quinine, bark, and aperients were persisted in for three months, during which time the patient complained of giddiness, noises in the head, etc., and was subject to attacks of "catching" of the left side and face during the night. I then lost sight of the patient.

Case 90.—George W., aged 38, a cook, had for two years been subject to a feeling of "numbness" at the back of the head, also in both hands (especially the right one) and in the fingers, and in the left leg, beginning with headache. He had never had a regular "fit," but at times the "weakness" and numbness, and partial loss of senses, had been so great, that he was obliged to lay hold of chairs, etc., to prevent himself falling down. The power of motion of all the limbs was unaffected, as also the sensibility of the skin. The pulse was feeble, but regular; the skin cool; the tongue creamy; the conjunctivæ of the eyes somewhat vascular; the bowels were regular; there was no cough and no anasarca; the urine was free from albumen.

Ordered the tinct. ferri sesquichl., ɱxx.; sp. æther. chloric, ɱxv.; infus. quassiæ, ter. die.

At the end of one week the tongue was much better, but the pains in the head said to be much "sharper."

Quinine and iron were then given, and occasionally the haust. sennæ of the Hospital. Afterwards the mist. gentian co. of the Pharmacopœia was given, but the increased action of the bowels produced was said to make the patient worse. Fifteen drops of the tincture of foxglove were then given, along with twenty drops of the aromatic spirits of ammonia, in camphor mixture thrice a-day, and continued for a month. Eventually the giddiness ceased to trouble him, except on walking much; and the numbness gradually ceased, until at last he was discharged as "feeling well," ten weeks after his first application to the Hospital.

Case 91.—Thomas D., aged 61, had been subject to epileptic attacks for five years more or less, but for nine months had had none until three weeks previous to his application. They were originally caused, apparently, by fright, in connexion with some punishment in the army when living in the West Indies. The attacks were generally preceded by a painful feeling of swelling about the lower costal cartilages on the left side. Potatoes, if half cooked, would always cause the attacks, as he thought. He was in the habit of vomiting his food, and was evidently dyspeptic.

Ordered the hydrocyanic acid, with bicarb. of soda and tincture of columba, to which was added subsequently the ammon. cit. of iron. During the next two weeks five fits had occurred; but vomiting had ceased. The pulse was very weak. Quinine and iron, with chloric ether, were then given. During the next week there were two fits.

After that I lost sight of the patient.

Case 92.—Richard D., aged 27, was admitted into St. George's Hospital, July 11, 1858, for irritability of the bladder and stricture of the urethra. Pneumonia came on, and eventually delirium and epileptic attacks; coma supervened before death.

After death no cause was found for the epileptic attack and delirium, etc. The kidneys were quite healthy.

Case 93.—In the number for December 18, 1852, of this Journal, (d) I published "a case of epilepsy," independent of the present series of observations. I propose to give some particulars of the progress of the case, which, I think, was one of considerable interest. It was that of a gentleman of delicate health, H. F. S., aged 21, whose symptoms were decidedly of an apoplectic as well as of an epileptic nature. He had had seizures in 1850, 1851, and 1852, for the most part following heavy, indigestible meals. Subsequently to the account given as above, the patient continued to have attacks even more frequently, and consulted Dr. Marshall Hall and others. They then occurred much oftener than before, and, indeed, came on every three or four months, retaining on the whole their former character. The patient, however, gained general power and tone—more, according to his own opinion, from the use of strychnia than from anything else, which he took pretty regularly for nearly a year. The attacks continued until his marriage in 1856 or 1857, and afterwards until the summer of 1859, when he was attacked by pneumonia on the left side, and abscess of the same lung, as evidenced by the sudden expectoration of a quantity of pus, sometimes with, at others without blood admixed. During this illness he burnt one of his feet extremely, owing to some accident with a hot-water bottle which was applied in bed. The burn caused a sore, which "festered" and formed an abscess in the sole of the foot, which remained unhealed for several months, partly, no doubt, owing to its position. At last, however, it healed; but as far as the present time, February, 1864, there has been no return whatever of epileptic attacks, and no positive threatenings of such ever since the attack of pneumonia in 1859, up to which time they had occurred very frequently—even every three or four months.

I ought to have previously stated that tonics of all kinds, and also the belladonna, had in this case been tried ineffectually as regards arresting the fits, although the general health had improved.

(To be continued.)

c) "Hospital Post-mortem Book," 1849. No. 158.

NOTICE OF ÆGLE MARMELOS. CORR. (Nat. Ord. AURANTIACEÆ.)

THE BELA, OR BAEL OF THE NEW BRITISH PHARMACOPŒIA.

By EDWARD J. WARING, Esq., F.L.S.,
Her Majesty's Indian Medical Service.

Ægle Marmelos. — Correa in Linn. Trans., vol. xxii., D.C., Prod. i., p. 538; Wight. Icones, i., t. 16; Roxb. Coromandel, pl. ii., t. 143; *Crataeva marmelos*, Linn., sp. pl. 637; *Feronia pellucida*, Roth. Nov. Spec., p. 384; *Cydonia quæ marmelos*, *Arbor dicta*, Burm. Thes. Zeylan, p. 84; *Bilva*, or *Mahura*, Sir W. Jones, Asiat. Res., p. 348; *Bilacus*, or *Bilanus*, Rump. Herb. Amb., i., p. 197, t. 348; *Covalum*, Rheede Hort. Malab., iii., p. 37, t. 87; *Marmelos de Bengala*, seu *Mala Cydonia e Bengala*, Garcia ab Horto, Aromat. (Ed. Clusius, 1585), p. 199.

Botanical Description.—A small tree, trunk pretty erect, bark ash-coloured; branches few and irregular; thorns axillary, in pairs, single or none, very sharp and strong; leaves ternate; leaflets oblong or oblongo-lanceolate, attenuated to a bent point, crenulate, differing much in size, but the exterior one is always the largest; panicles small, terminal, and axillary; flowers large and white, hermaphrodite; calyx four or five-toothed; petals four to five; filaments about forty, short; anthers linear, erect; fruit large, spheroidal, smooth with a hard shell, and ten to fifteen cells filled with a tenacious, transparent gluten; seeds six to ten in each cell, oblong, a little compressed, woolly, attached to the inner angle of their cell.—(Lindley.)

Vernac. Synonyms. — The Bael, or Bengal Quince Tree (Eng.); Bivalva, Bilva, Mahura (Sans.); Seferjel-hindee.

(d) Vol. v., p. 619.

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(Persian); Bilwa, Bêl, Bael, (Hindústani); Bela (Beng.); Márèdu (Telegu); Vilva-marum (Tamul); Bel-puttrie (Canarese); Oo-sheet (Burmese); Covalum (Malabar); Beli, Belighas (Cingalese); Tanghula (Malay); Modjo, or Modsho (Javanese.)

Habitat.—Common in most parts of Bengal, extending down the whole of the western side of the Bay of Bengal, the Tenasserim Provinces, and Malayan Peninsular; also in Coromandel, Malabar, and other parts of Southern India, and Ceylon. It is generally found near temples, being one of the sacred trees of the Hindoos. Cultivated in the Mauritius.

Medical Properties and Uses.—This tree has apparently from the earliest ages enjoyed a high repute amongst the natives of India for its medicinal properties. All parts of it have been employed, as a summary of its uses, published some years since, by Baboo Ramcomol Gher (*Med. and Phys. Trans. of Calcutta*, vol. iv., p. 110), would indicate. According to this writer, the bark of the root in decoction (℥j., aq. Oj., boiled to ℥iv.) is administered in bilious fevers; the bark of the stem is employed in similar cases, but generally in conjunction with other articles; the expressed juice of the leaves, which is slightly pungent and bitter, causes diaphoresis, and is given in colds and incipient fevers; the young leaves made warm are applied to the eyes in ophthalmia, to allay pain and inflammation; the unripe fruit in decoction is highly valued in dysentery and diarrhœa, especially when they occur in children, and the ripe fruit is employed in the same cases; and in the form of sherbet with tamarinds proves serviceable in febrile attacks, to allay thirst, heat, etc. The fruit is the part which chiefly merits attention, possessing, as it apparently does, the valuable property of establishing a healthy tone in the stomach and bowels, arresting diarrhœa when present, and acting as a mild aperient when constipation exists.

The dried fruit imported into England was analysed by Mr. H. Pollock (*Lancet*, July, 1853). He found that the pulp and dried shell of the fruit did not differ chemically in any respect, except as to quantity. They both contained—1, tannic acid; 2, a concrete essential oil; 3, a bitter principle; and 4, a vegetable acid. The pulp also contained a considerable quantity of sugar. Professor Macnamara, of Calcutta (*Indian Ann. of Med. Science*, vol. 2, p. 233), chemically examined the fruit, both in its mature and immature state: he found the ripe to contain more tannin than the unripe fruit, in the proportion of five to three; it likewise contained more sugar, also more of the bitter principle and vegetable acid. After extracting from the fruit the matters soluble in water, there was obtained, by means of ether, a balsam having a strong odour, like that of Peruvian balsam; this was found to exist in much larger quantities in the ripe than in the unripe fruit. The comparative deficiencies in these substances in the unripe fruit were compensated for by the gummy extractive and fibrous matters. The astringent action of the bael is due to the tannin; but Dr. Macnamara suggests that to the balsam is due the tone which this fruit gives to the coats of the intestines, rendering the secretions of the mucous membrane more healthy. It may advantageously be given in the form of sherbet. Thus, take of the soft gummy substance from the interior of the fruit, ℥ij.; mix with ℥iij. to ℥iv. of water; sweeten with sugar to the taste; and add, if procurable, a lump of ice. This agreeable drink possesses the aroma of the fruit, and may be repeated twice or thrice daily. When prepared from the ripe fruit, it is not only astringent, but possesses the singular property of being aperient if the bowels are irregular and costive. When the patient is debilitated, and the stomach weak, it sometimes disagrees; it ought then to be given in small repeated doses, and if these also are rejected, the extract may be tried. The dose of the extract is, ℥ss. to ℥j., twice or thrice daily. Another good mode of administration is that of marmalade, prepared in the same manner as orange marmalade; it is usually taken like it, spread upon bread. It has the great advantage of keeping well for a long period.

Therapeutic Applications.—In various forms of intestinal derangement, bael exercises a marked and valuable influence. Its use in diarrhœa and dysentery was first noticed in 1563 by Garcia, ab Horto, and subsequently by Rheede ("Hort. Mal.," iii., p. 37), Burman ("Flor. Ind. Ed.," 1768, p. 109), Bontius, and other early writers on the botany of the East; but it is only of late that European Practitioners in India became fully aware of its value in this class of diseases. In 1853, Sir Ranald Martin called attention to its use (*Lancet*, 1853, vol. ii., p. 53); and in the following year Dr. Alexander Grant, of the Bengal Medical Service, published a most excellent paper on this fruit (*Ind. Annals of Med.*, ii., p. 225), bringing together all that had hitherto been known on the subject, and recording his own experience and that of others in its use. With regard to his own experience, he states, that he has been in the habit of recommending the sherbet (ante) as an aperient to persons subject to habitual constipation; a small tumblerful, taken early in the morning, producing generally one evacuation daily. In cases of dyspepsia, with obscure symptoms of land scurvy, it seemed also to act very favourably, and to possess alterative as well as antiscorbutic qualities. Many persons in Bengal (continues Dr. Grant) suffer, especially during the rainy season, from attacks of irregularity of the bowels, periods of looseness alternating with others of constipation. In such states of the system, the sherbet acts admirably; in the first instance as an astringent, and in the second as an aperient. It seems, in both these opposite conditions, to stimulate the mucous membrane to more natural and regular action, combining with the ingesta, and aiding healthy assimilation. It has been given, with very satisfactory results, to persons of delicate and weakly habits, subject to excessive mucous diarrhœa; it has been chiefly employed in cases of chronic dysentery and diarrhœa among native prisoners in the Bengal jails; most of such patients are in a condition of greatly depressed vitality, either anæmic, scorbutic, or debilitated and anasarcous. Here mercury cannot be given in any form, for it acts as a poison, and opium checks the secretions of the liver. The bael fruit generally fails, as every other medicine would fail, to effect a cure; but it often does more good than any other remedy, and is always of temporary benefit. When stimulants were indicated, a small quantity of palm wine was allowed. Dr. Grant also quotes the experience of Drs. Stewart and Jackson, of Calcutta. The former states that, for years past, he has employed the bael, and that he never uses any other form than a sherbet of the ripe fruit, and he prescribes it, not only as an astringent in disease, but as a preventive of diarrhœa in persons subject to that complaint. According to Dr. Jackson, the bael is most successful in the chronic forms of dysentery, when the stools are frequent and bloody, mixed with mucus. When there is much heat of skin, it does not agree so well, and he has often been obliged to discontinue it, in consequence of the flatulence and indigestion it causes. He adds that, as a regulator of the bowels, half a tumbler of the sherbet, with a little sugar, will act in producing one healthy evacuation, and that he has known many people take it in this way as an aperient. In the diarrhœa after cholera, he has used the sherbet very beneficially.

Dr. Grant likewise adduces the experience of Dr. E. Goodeve, Dr. R. Moir, and Dr. Chuckerbutty, all of whom speak more or less favourably of its operation. Dr. Cleghorn, in his paper on the bael (*Ind. Ann. of Med.*, ii., p. 223), also quotes Dr. Sanderson, of Madras, and others, in favour of its efficacy. Dr. Kirkpatrick (*Madras Exh. Cat.*, No. 381, "Remarks") states that several cases of intermittent fever, accompanied with chronic dysentery, have been cured, under his own observation, by this remedy alone. He employs the following formula:—Two fruits, shells and all, bruised, are to be boiled in a quart of water till reduced to ℥xij.; of this, ℥vj. a day, in divided doses, should be taken, the dose to be diminished as the disease yields to the remedy. In some cases of dysentery, in the advanced stages, and in the diarrhœa of natives, I have seen unequivocal benefit from its use; it must be regarded as a remedy of very great value in this class of cases.

ATROCIOUS AND BASELESS CHARGE AGAINST A MEDICAL MAN.— On Tuesday, February 2, in the Belfast Police-court, a woman, named Rose Drummond, brought a charge of indecent assault against Dr. Charles Stewart Corry. After a long investigation, which lasted two days, the magistrates dismissed the case as utterly groundless, and unsupported by a shadow of evidence. Dr. Corry is a Dispensary Surgeon, and was engaged to attend the woman Drummond in her confinement. The *Northern Whig*, in a leading article on the subject, expresses the strongest sympathy with Dr. Corry, in having been made the victim of a trumped-up charge, and animadverts on the conduct of the magistrates, who adjourned the case to suit the convenience of the plaintiff's lawyer. It is said that Dr. Corry will not allow the matter to rest, but will prosecute the plaintiff and others on a charge of conspiracy.

CATTLE DISEASE IN VIENNA.—Disease of cattle is committing terrible ravages in Vienna, especially among the dairy cows.

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REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

CASE OF DISLOCATION OF THE RIGHT FEMUR ON THE DORSUM OF THE ILIUM—REDUCTION WITHOUT PULLEYS ON THE TENTH DAY—FRACTURE OF THE LEFT FEMUR.

(Under the care of Mr. HULKE.)

A LABOURER, aged 36, working in a pit at Finchley, was struck down by a mass of falling gravel. The Surgeon who was called found his left femur broken, and suspected dislocation at the right hip; but there was already so much swelling that an accurate examination was not possible. On the fifth day, the swelling having lessened, a dislocation was recognised, and reduction was attempted with pulleys and chloroform; but without success. When he had somewhat recovered, he was sent to the Hospital, which he reached, much exhausted by the jolting of the cart.

The right thigh was slightly flexed, adducted, and rotated inwards, its axis making an angle of 20° with that of the trunk. The patella rested against the inner side of the other thigh, just above the knee. The upper border of the great trochanter was distant four and a-half inches from the anterior superior spine of the ilium; and the head of the femur could be distinctly felt (at this time) on the dorsum of this bone.

The fracture of the left femur, and overlapping of the fragments, prevented a satisfactory comparison of the length of the right with that of the left limb.

Next day, the tenth after the accident, the patient having been laid on a mattress placed on the floor, and brought fully under the influence of chloroform, Mr. Hulke, who was seeing Mr. Moore's patients, made an attempt to reduce the dislocation by extension in the direction of the axis of the thigh, with a jack-towel fastened above the knee, and counter-pressure with the foot resting on the tuber ischii. This brought the head of the bone lower down on the dorsum ilii; but failing, after seven minutes' trial, to bring it into the acetabulum, the plan was changed. The pelvis was held firmly against the mattress, the thigh was flexed on the belly and adducted, and upward traction was made with the towel across the axis of the trunk. The thigh was next adducted and rotated outwards, when reduction immediately occurred, with a slight snap. The legs were tied together, and a bag of ice was kept on the hip during several days. In the fourth week, the plaster bandage was removed from the left femur; the fracture was apparently consolidated; but, as considerable shortening was found on comparing the limbs, Mr. Moore, under whose charge the patient then was, reapplied the long splint, making extension with an India-rubber accelerator attached to the foot. This reduced the shortening to three-quarters of an inch. The man left the Hospital, ten weeks after his admission, with the fracture firm, and the complete restoration of the natural movement of the hip.

SUB-CORACOID DISLOCATION OF THE HUMERUS—REDUCTION, WITHOUT PULLEYS, TEN WEEKS AFTERWARDS.

(Under the care of Mr. HULKE.)

A stout, healthy young woman, in falling, struck her shoulder against a step; much swelling followed. A Surgeon thought that the humerus was broken near the joint, and applied splints. Ten weeks afterwards, by which time the fracture was thought to have firmly knit, the arm remaining very stiff, she was brought under Mr. Hulke's notice. The shoulder was angular. There was a hollow under the acromion, and an unnatural, rounded prominence, visible through the greater pectoral muscle, which rotated with the humerus. Flexion, extension, and adduction were possible in a limited extent, but abduction was not possible. The elbow pointed slightly backwards and from the side. The deltoid was much wasted. She complained of severe pain darting from under the collar-bone to the shoulder-blade. The distance between the tip of the acromion and the outer condyle of the humerus was nearly three quarters of an inch greater than in the uninjured arm. There was evidently a sub-coracoid luxation of the head of the humerus.

Chloroform was given. The arm was abducted and forcibly rotated in order to break up adhesions. These gave way with loud cracking, and rotation became free. The arm was then adducted, extension was made with a round towel, fixed with a clovehitch above the elbow, and, with the foot in the axilla, the head of the bone returned to the glenoid cavity with a jerk and snap.

NOTES ON THE USE OF TINCTURE OF LARCH IN CHRONIC BRONCHIAL AFFECTIONS.

By Dr. HEADLAM GREENHOW, Assistant-Physician to the Hospital.

THERE is a certain stage of chronic bronchitis in which expectorants cease to be useful. More or less copious expectoration, indeed, still continues, but the acute symptoms have subsided, and the secretion from the bronchial membrane may be regarded rather in the light of a passive flux than as the immediate result of irritation. In such cases, the object of the Physician must, therefore, be rather to check than to encourage the continuance of the expectoration. In patients who have suffered from repeated attacks of bronchitis, this stage of the disease often persists for a lengthened period, and may even ultimately become the habitual condition of the patient. A somewhat analogous condition of the bronchial membrane is frequently met with in cases in which there has been no previous attack of acute or sub-acute bronchitis, but in which the ailment, having begun with a slight increase of bronchial secretion, has gradually merged into a chronic cough attended by expectoration. This latter form of bronchial affection is especially apt to occur in patients of gouty constitution, and also in persons exposed to breathe either the over-dried atmosphere of artificially-warmed and ill-ventilated apartments, or air charged with mechanical, gaseous, or other irritants. In whichever of these forms the chronic flux from the bronchial membrane may present itself, its tendency, even in slight cases, is to impair the general health and vigour of the patient, and to render him more especially liable to suffer from catarrhal attacks, each repetition of which further aggravates, and tends to render permanent the bronchial affection. Various remedies have long been in use for the treatment of this class of cases, especially balsamic medicines—such as balsam of copaiba, ammoniacum, and compound tincture of benzoin. Of these, balsam of copaiba is undoubtedly the most efficacious; but its nauseous taste and smell, for the most part, forbid its employment. Moreover, in many of such cases, there is a feeble condition of the digestive powers in which these balsamic medicines are apt to disagree with the stomach, and a want of general tone and vigour, requiring the administration of tonics. I have now, during some five or six years, been using, with much success, the tincture of larch in the treatment of these forms of bronchial affection. The tincture is made from the inner bark of the larch tree, and its taste is much less unpleasant than that of any of the above-named remedies. I have rarely found it disorder the stomach, and it is capable of being given in combination with tonics, or any other remedies the case may require. I most frequently prescribe it, in Hospital practice, in doses of from twenty to thirty minims, in a mixture consisting of tincture of gentian, nitro-muriatic acid, and water, with or without ipecacuanha wine, and either tincture of hyoscyamus or compound tincture of camphor, according to the more or less frequency and severity of the cough. When desirable, the mixture may be rendered more agreeable to the taste by the substitution of syrup of orange peel for tincture of gentian. Of the value of the tincture of larch as a remedy in the large class of cases above described, I entertain no doubt, having tested its efficacy very carefully, and having repeatedly found that patients improved greatly under its use when other medicines had failed. I have in a few cases tried an extract of larch bark, but have found it less decidedly useful than the tincture, which is also the most convenient form for administration. It will be inferred from the tenor of the foregoing observations, that tincture of larch will be found useful only in chronic forms of bronchial disease, attended by considerable expectoration. Its employment is contraindicated in acute bronchitis, or during the intercurrent catarrhal attacks, to which patients suffering from chronic bronchitis of long standing are so liable. Its effect as a remedy is gradually to lessen the amount of expectoration, and with it the cough and dyspnœa, and at the same time to render patients much less subject to catarrhal attacks at particular seasons or changes of weather.

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ROYAL PORTSMOUTH AND PORTSEA AND GOSPORT HOSPITAL.

INJURY TO SPINE FOLLOWED BY COMPLETE PARAPLEGIA—RECOVERY.

(Under the care of Dr. J. W. MOORE MILLER.)

M. R., aged 22, jumped out of window in a drunken fit about nine months since. Paralysis of the legs instantly followed, and complete anæsthesia as high as the crests of the ilia. She suffered extreme pain in her back. Her bowels were very obstinate, and the bladder had to be emptied by the catheter.

The patient was admitted into the Hospital on June 9, 1863, nine months after the accident; she then stated that the pain had gradually subsided during the last four months, and that she had gained slight power over her legs. She could only stand with assistance. The bladder acted feebly, and the bowels were very costive. The sensibility of the skin was dull over both legs, but there was marked anæsthesia over left calf, right gluteal region, and right side of vulva. On examining the spine, a posterior curvature was discovered involving the lower dorsal vertebræ. The treatment consisted in iodide of potassium internally with the occasional use of mild aperients. She was directed to rest on the abdomen, and the muscles were regularly stimulated by Faradisation.

At the end of one month she had made considerable improvement; she could stand alone for some minutes, and with assistance walk along the ward. There was, however, much more power over the right than the left foot, the flexor muscles of the toes acting very feebly, while the extensors continued completely paralysed.

When discharged, September 1, her general health was good. Sensibility had everywhere completely returned, and although she could walk firmly, there was still only partial power over the left foot—it was raised, and then flapped down awkwardly.

Remarks.—This case is interesting because it is an illustration of recovery after a very severe injury of the spinal cord. The injury sustained by the fall appears to have been partial dislocation of one or more of the vertebræ backwards, at the same time the spinal canal was broken and the cord compressed. Nature's adapting processes were assisted by remedies to improve the nutrition of the cord; rest and position to relieve congestion; while the paralysed muscles were artificially exercised to preserve them from degeneration. The cure unfortunately was not quite complete; the flexors and extensors of the left foot remain permanently injured, and voluntary control over them is lost. This is not the result, however, of any change in the substance of these muscles or their nerves, but is due, in all probability, to defective nutrition and wasting of some nerve-tubes of the anterior columns or anterior roots belonging to them; and thus their communications with the brain have been severed at the seat of injury.

ACUTE MYELITIS—RECOVERY—REMARKS.

(Under the care of Dr. JOHN [illegible]ARD COUSINS.)

J. H., aged 36, a gardener, was taken ill after watching in his field during a wet night. I saw him on November 14, 1862, and he then complained of pain in all his limbs and over the chest, together with a sensation like a cord tied round his body. His sleep was disturbed by "spasms" in his legs. He looked flushed and anxious; pulse 100; skin hot; and tongue coated. The next day the following notes were taken:—General hyperæsthesia is now present (especially over left side of body), and loss of power over both legs, which are frequently drawn up by spasmodic reflex movements. The left side of the body is still very painful, and his left arm and both legs are the seat of uneasy sensations, which he compares "to the gnawing of dogs." A warm sponge applied over the spine, from the dorsal region downwards, excites an intense sensation of burning, and the spinous processes are tender on percussion. There is no loss of power over the arms, and the control over the bladder is natural. The treatment commenced with a quarter of a grain of extract of belladonna every six hours, and the patient was placed on milk diet.

November 20.—The febrile symptoms have all subsided, and he is able to stand. Reflex movements of the legs much diminished. The belladonna was now combined with ergot of rye; blistering fluid was applied on each side of the spine, and a better diet ordered.

25th.—Slight hyperæsthesia still remains over left arm and leg. He can move his legs now freely when lying down. To-day he attempted to walk, but his gait is characteristically myelitic. His general health is improving. The pills were now prescribed twice a-day, with a mixture of iodide of potassium and decoction of bark.

29th.—Patient now walks much better. Hyperæsthesia only slight over left leg. He continued daily to improve until the middle of December, when he was discharged cured.

Remarks.—On reviewing this case, the prominent symptoms—hyperæsthesia and loss of voluntary movement—plainly indicate, that the posterior columns were the portions of the spinal cord chiefly involved. The morbid action appears to have extended through a considerable portion of their length and thickness, because (1st) the sensibility of the four limbs was increased, and (2nd) had the alteration been limited to a small part of their length, there would have been but little loss of voluntary movement. The cord, however, was not much affected below the middle of the dorso-lumbar swelling, otherwise the sphincters of the bladder and rectum could not have escaped. The patient complained of a great deal of pain and "spasm" in the limbs, which suggests the probability that the case was complicated with some spinal meningitis. Had the anterior columns been the chief seat of the disorder, the power of motion would not have been greater in the recumbent position, but the limbs would have been paralysed, sensibility diminished, and the symptoms of myelitis less marked. On the other hand, we must admit that there was some inflammatory change in the grey matter, as the patient suffered from uneasy sensations at the periphery; but this part of the cord could have only been slightly involved, without diminution or loss of sensibility replacing the marked hyperæsthesia.

CHRONIC MYELITIS LIMITED TO CERVICO-BRANCHIAL REGION.

(Under the care of Dr. JOHN WARD COUSINS.)

M. D., aged 49, a widow, came under my care in April, 1862, suffering from severe neuralgic pain over right shoulder and down the arm. She continued under treatment some weeks, and was discharged relieved. She was admitted again into the Hospital on May 8, 1863, when the following symptoms were present:—Intense hyperæsthesia down the right arm, especially over biceps and dorsum of the thumb; the left is only very slightly affected. There is also increased sensibility of right cheek, without any change in the pupil. Hyperæsthesia, too, is marked on the right side of the spine, as low down as the middle of the back, and over the left leg. The lower cervical spinous processes are tender on percussion, and a warm sponge applied over them excites intense pain. The patient complains of a feeling resembling a cord tied round the chest, and of pain in the cervical and occipital regions. Her pulse was small and feeble, and lately her strength had much declined. She said "her arms were weak," but there was no perceptible alteration in voluntary control or reflex movement of either the upper or lower extremities. The treatment consisted in the internal administration of belladonna and ergot of rye, and the application of blistering fluid to each side of the spine in the cervical region. Her improvement was very satisfactory; the hyperæsthesia slowly subsided, and on June 26 she was discharged "quite well." Lately she has had a slight return of the old neuralgic pains in the left arm and shoulder.

Remarks.—This case is an illustration of the fact, that "hyperæsthesia, contrary to anæsthesia, may exist alone." Some vascular changes probably occurred in the posterior columns of the cervico-branchial swelling of the cord, too limited to produce any distinct loss of voluntary control over the upper limbs. For the same reason there were no increased reflex movements of the legs, and standing and walking could be performed without any apparent difficulty. Some fibres of the sympathetic, however, appear to have been involved, which caused the hyperæsthesia of the cheek; and the occipital pain the patient suffered had likewise a spinal origin.

DEATH OF DR. ELFINGER.—Dr. Elfinger, so celebrated in Germany as a painter of pathological objects, died suddenly last month in Vienna from an attack of hæmoptysis, having been only an hour before engaged in taking some laryngoscopic views for Dr. Türk, in the Vienna General Hospital. Our readers must be well aware of his powers as a faithful pathological artist, through the plates of skin diseases he has brought out in co-operation with Hebra, several of which have been republished by the New Sydenham Society.

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Medical Times and Gazette.

SATURDAY, FEBRUARY 20.

ARMY MEDICAL DEPARTMENT.

On the 9th inst. the Army Medical Department recruited its ranks from the candidates at the Competitive Examination. That the official net has been cast in many waters to catch young fish we have no doubt, but very considerable doubts about the vessel of the Department sinking under the weight of the draught. It would be an affectation in us to express sympathy with the official fishers at the limited supply of Medical candidates, or at their inferior quality, under the present regulations, government, and position of the Medical element in the army. It appears, moreover, that the Department is losing its hold upon those already within its bonds, for we have noticed, within as many weeks, the retirement of three senior Assistant-Surgeons.

We need not go far to seek the causes of this unpopularity. The aspect of things has altered in the world. Science now holds a place in our universities and in public opinion, which was once occupied by the cultivators of letters only. The men of mere learning and scholastic acquirements no longer fill the places, as they fail to respond to the wants of this generation. That these possessions will always bring honour, and never fail to confer benefit, may be true enough; but classical acquirements are no longer everything, and a man may win his spurs in the field of the physical sciences as well as literature. The Medical student of this day is a very different, as well as a rarer animal than of yore. His education is twice as good, and the expense of attaining it has equally increased. Commensurately with these advances has there been a progressive change in the social position and feelings of the Profession, both as a body and as individuals. There are a larger number of men of good birth and means, as well as of excellent general education, aspiring to Medicine as a profession than formerly. Men enter the arena of our Medical Schools better disciplined for the race before them—better prepared to pursue the study of a special science, and to practise it afterwards, as members of a liberal Profession. Necessarily, therefore, men like these look forward to filling positions which may enable them to pursue their functions with a due amount of independence and self-respect, and with corresponding honours and emolument.

A few changes in our services would bring numerous votaries to the Government shrines. But what do we find? Have any of the reforms with which the Medical press has been teeming of late been introduced? We fear not. Nothing has been done to diminish the congestion, arising from arrested circulation, in the lower ranks of the Department. Is it likely that an expensively educated man will enter a service where the steps of his promotion are under fifteen per annum, and where Assistant-Surgeons of some eight or nine years' service have 150 names above them. The Government, sooner or later—and the sooner the better, for the interests of everybody—must yield, and permit an earlier retirement than the present. But it has been said, that men do not live by bread alone. Are there, then, no other causes operating to deter men from entering H.M.'s army? We have alluded to the regulations affecting the branding of soldiers, which still continue in force. Of late years, to add to the uncertainty and cloudiness which surround a Medical officer's position, we learn that they are tied down in the most stringent manner, in all cases, to the diets as laid down in the regulations. Not only is the hand of an attendant on the sick made to perform a large amount of writing for every—even the simplest—extra that may be given, but he cannot prescribe the cheapest drinks or certain diets without performing a sickening amount of writing, or paying for them himself. We have forgotten in how many ways the diet of a sick man has to be rendered, so numerous are they. We are perfectly aware that restraints must be imposed, but the restrictions are so many as to become irksome and irritating, and, in the cases of indolent, unconscientious men, can only operate banefully upon the sick soldier. It is ridiculous to suppose that a patient, on the eve of dying or the advent of recovery from a severe disease, should have to wait for a piece of fowl until the day after he asks for it, in order that he should be placed on a chicken diet, or that a sick man, on any diet, should not be allowed an inexpensive drink without the sanction of the Director-General being first had and obtained. Take, again, the subject of recruiting. It is not exactly logical that the most responsible duty in the passing of recruits should fall to the lot of one who does not receive the recompense for the individual so passed into the service, but whose pocket is placed in jeopardy if he be rejected. Still, Medical officers would have no great cause of complaint if they had to pay for cases of a negligent and defective exercise of their senses; but they declare that no latitude is allowed them for exercising the discretion indicated by the opening paragraphs in the regulations on this head, and they, therefore, think it safer to consider a healthy man with the cicatrix of a leech-bite ineligible.

All this kind of thing is very short-sighted; and we regret that the Medical officials in high places appear to have no power, or no desire, to remove, at any rate, these ridiculous sources of discontent.

THE CENSUS.

A third volume, recently presented to Parliament on the subject of the Census in 1861, contains the general report of results arrived at in that important inquiry. Seventy-six pages are devoted specially to this document, which is signed by the Registrar-general, Dr. W. Farr, and Mr. F. T. Hammick. It is followed by an appendix of great length, and very varied contents, which swells the size of the volume to 248 pages in all.

It is unnecessary to point out the immense and incalculable value of such a work, nor need expressions of a complimentary character be wasted on gentlemen who already rank among the highest authorities in their own branch of scientific research. It may better serve more practical purposes if we suggest the danger there is of investigations like this, pursued with ardor and ability, at an enormous expense of thought and labour, being lost sight of, and, as it were, overlaid by the very Government patronage which gives them their origin and encouragement. Bluebooks are proverbially, though unjustly, held to be dull reading. It is our pleasant duty to state that this report is not a blue, but rather a slate-coloured or neutral-tint book, and that, far from being dull, it is most attractive and enlivening. One advantage it borrows from its blue predecessors, and that is cheapness. George Edward Eyre and William Spottiswoode, no less excellent as men than distinguished as Royal printers, append to their title-page a pregnant statement—price 2s. 10d. Let us impress on our readers that thirty-four pence could not be

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better spent than in procuring this handsome folio. Although results of honest scientific work such as these are like the old satirist's verses—

"Nec Scombros metuentia carmina, nec Thus"—

still we entertain no doubt that an economical purchaser might to a large extent *recoup* himself the expenditure in the household value of the very paper on which they are printed.

There is obviously more material than can be done justice to in a single notice. Nor need the accusation of tediousness be feared if we recur to the subject once and again. The report of this, the seventh, census of England opens by an account of local machinery for its management—the formation of districts, appointment of enumerators, and the like. England and Wales formed 30,329 enumeration districts; islands in the British seas, 300; and 533 public institutions had their own enumerator. Floating population, whether literally in vessels, docks, boats, and barges, or metaphorically "in barns, sheds, caravans, tents, etc., or in the open air," required special arrangements. This and the subsequent collection of schedules, with collateral army returns and similar administrative points, are very briefly told. The total population of the United Kingdom was 29,321,288, and the increase in England and Wales since last census 2,174,327. Females exceeded males. "The nomadic race" numbered above 10,000. Inmates of public institutions, quaintly divided into voluntary and involuntary, numbered 26,096 criminals, 24,345 lunatics, 10,414 patients, 125,722 poor and infirm in workhouses, 23,598 in charitable asylums. Houses, families, towns, parishes, and militia districts are in turn noticed. Then paragraphs follow on age and conjugal condition, the law of population, occupations of the people; migrations come next, and are succeeded by facts as to the blind, deaf, and dumb. The tenth section is devoted to workhouses, prisons, asylums, and Hospitals, and to it we may recur hereafter. Short passages relating to the islands in the British seas, and the area and population of the British empire, including colonies and possessions, bring the report itself to a termination.

When we add that there is an appendix treating specially of the Medical Profession, enough has already been shown of its contents to justify the inference, that this work, if not in every Medical Practitioner's private library, should at least be accessible through the instrumentality of Medical book clubs and on the table of public libraries.

THE WEEK.

DR. TURNBULL AND THE HORSEGUARDS.

We are happy to state that the announcement which appeared in the *Lancet*, to the effect that Dr. Turnbull, of the 6th Dragoons, has been placed on half-pay, is incorrect. Dr. Turnbull's contradiction of the statement is published in the *Daily Telegraph* of Wednesday, Feb. 17.

GALLANT CONDUCT OF NAVAL AND MILITARY SURGEONS.

Commodore Sir Wm. Wiseman, in his despatch, dated November 30, speaks in high commendation of the intrepid conduct of the two Assistant-Surgeons who landed with the party of seamen and marines, sent to act in concert with the troops in the recent attack on the Maori works at Rangariri. We are happy to see that the *Gazette*, in which the Commodore's despatch appears, contains the announcement of the promotion of Dr. Messer to the rank of Surgeon. The Commodore writes:—

"17. I would also bring to their Lordships' notice the admirable conduct of Assistant-Surgeons A. B. Messer, of the *Curaçoa*, and Duncan Hilston, of the *Harrier*; they were landed with the seamen and marines, and were indefatigable in their attention to the wounded, dressing them under fire.

"Mr. Messer, when he heard of Mr. Watkins', midshipman of the *Curaçoa*, fall, went up to the body, which was lying in the ditch, close under the parapet of the enemy's work, to ascertain if he was alive or not; finding he was dead, he returned to attend to the other wounded; he was accompanied both on his going and returning by William Fox, ordinary seaman, of her Majesty's ship *Curaçoa*, and on both occasions exposed to heavy fire.

"The wounded, both naval and military, were brought on board the *Pioneer* and *Avon*, and remained on board till landed at the Naval Camp on Sunday, the 22nd; during the period Doctors Messer and Hilston were unremitting in their attention to them."

The *Gazette* of Tuesday, February 16, contains the appointment of a successor to Assistant-Surgeon Pile, who lost his life at the Umbeyla Pass.

"101st Foot.—Staff Assistant-Surgeon Acheson George Bartley, M.D., to be Assistant-Surgeon, vice William Pile, M.B., killed in action."

In the face of such facts as these, no amount of prejudice will suffice to establish the damaging distinction which certain authorities affect to draw between "combatant" and "non-combatant" officers.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE III.—FEBRUARY 6.

Professor Huxley commenced by quoting a statement of Vic d'Azyr to the effect that, besides the comparative anatomy which aims at comparing the same parts in different animals, there is another comparative anatomy, which has for its object the comparison of the resemblances and differences between corresponding parts of the same individual. Last year, Professor Huxley stated, he had taken up one part of this great subject, and had instituted an examination of the skull and vertebral column, with a view to ascertain how far they were constructed upon the same plan, the result having been that the supposed resemblance did not exist; it was, however, otherwise with the anterior and posterior extremities, which, as is universally admitted, present a remarkable accordance throughout their construction. To point out the details of this accordance is by no means an easy problem, and consequently has received many different solutions. None of these, not even the one now proposed, can be considered as thoroughly satisfactory, as they have not been checked by the aid of a complete study of the development of the parts in question, the only method by which any morphological problem can be absolutely determined. Vic d'Azyr, who took up this subject in the latter part of the last century, thought that the comparison could only be carried out by taking the anterior and posterior limbs of opposite sides, the right upper with the left lower, and *vice versâ*, a theory which has met with little or no support. Bourgery and Cruvielhier, seeing that the thumb corresponded with the great toe, and the lower ends of the radius and ulna with those of the tibia and fibula respectively, thought that it was the reverse with the upper ends of these bones, a crossing taking place in the middle of the forearm. Flourens and Martins accounted for the difficulty of the different direction of the articular surfaces of the femur and humerus by supposing that, while the former was a straight and unmodified bone, the latter was twisted on itself to the extent of 180° in man and the higher mammals.

Regarding these theories, and some minor ones which were alluded to, as more or less untenable, Professor Huxley instituted a new comparison of the limbs, placed, not in the position which they assume in adult life, but in the only one in which they really correspond with each other, viz., that which they first exhibit in the embryo. In this condition they stand out at right angles from the body, the extensor surface being placed dorsally, and the flexor surface ventrally, the same for both pair of limbs. They then gradually become bent, and afterwards acquire the modified position which suits them for their functions in life, and to which the various articulations become adapted. The embryonic position continues through-

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out life in many Amphibia and Reptiles, and without much change in *Galeopithecus* among Mammals.

The special homotypes of the bones of the extremities were then shown; the division of the bones of the hand and foot into the previously-mentioned tridigital and bidigital series, greatly aiding the comparison. The correspondence of the pollex and hallux and of the other digits, has been admitted by every one. The unciform, magnum, trapezoid, and trapezium of the hand correspond very well with the cuboid and the cuneiform bones of the foot. About the remaining bones there is more difficulty; but there can be little doubt but that the cuneiform and pisiform of the hand correspond to the calcaneum, the lunar to the astragalus and the scaphoid, together with the ninth bone which appears in the carpus of most Apes and many inferior Mammals, to the navicular. The radius was then shown to be homotypical with the tibia, and the ulna with the fibula, all having, however, undergone remarkable adaptive changes in their upper extremities, the ulna being enlarged in this part in the arm, and the tibia in the leg. The correspondences of the humerus and femur were then pointed out, and especially the change that their articular heads have undergone in direction in accordance with the requirements of the position of the body; and it was shown that, owing to the alterations from the original position of the limbs, the fore-part of the arm corresponds morphologically with the hind part of the leg, and the outside of the one with the inside of the other.

The pectoral and pelvic arch offer, at first sight, some difficultics, but by no means of an insuperable nature. The scapula can readily be shown to correspond to the iliac bone, its upper border to the "linea arcuata interna," forming the brim of the pelvis, the spine and acromion to the upper portion of the ilium, the supra-spinous fossa to the iliac fossa. A comparison of the scapula and ilium of the *Ornithorhynchus* shows this relation very clearly. It is generally considered that the pubis and clavicle are homotypes, but there are several strong objections to this view; the attachment of the muscles and the relation of the great vessels are entirely different in each, and, what is more important, the pubis is developed in a pre-existing cartilage, which the clavicle is not. That which corresponds to the clavicle in the lower limb appears to be Poupart's ligament, which, if ossified, would agree well with it in the attachment of muscles and relations of the large vessels and nerves. The coracoid represents the pubis, or the pubis and the ischium, in Man and the higher Mammalia. This resemblance is strengthened by the fact, that in monotremes and reptiles there are two coracoids, with occasionally an aperture between them corresponding to the obturator foramen of the pelvis.

The correspondence that may be traced between the muscles of the anterior and posterior extremities, although not so exact as that existing between the bones, is so well marked that it cannot be regarded as accidental. Many of these have been already alluded to in the preceding lecture, as the mode of insertion of the extensor and the perforating and perforated flexor tendons into the phalanges. The following are the principal muscles of the leg, which clearly correspond to others in the hand:—The tibialis anticus, with its double insertion into the entocuneiform and base of first metatarsal bone to the extensor ossis metacarpi pollicis, inserted into the trapezium and the base of the first metacarpal bone; the difference between them being, that in the first case the larger insertion is into the proximal bone—in the latter, into the distal bone. The peroneus brevis with the gastromenius and soleus, correspond with the extensor carpi ulnaris, being functionally enlarged in the lower extremity; the tibialis posticus with the flexor carpi radialis; the flexor longus digitorum of the foot with the flexor digitorum profundus of the hand; the flexor brevis digitorum of the foot with the flexor digitorum sublimis of the hand; the extensor longus digitorum of the foot with the extensor communis of the hand; the popliteus with the pronator teres; the gracilis and sartorius with the biceps flexor cubiti; the great adductors with the coraco-brachialis; the iliacus with the supra-spinatus; the glutei with the infra-spinatus and teres, etc.

Among the principal differences between the muscular arrangements of the two extremities may be noticed the absence of an opponens to the first metatarsal bone of the foot; this seems an important character, as it is pretty constant in the lower groups of Mammalia. There is a slight difference in the origin of the interossei in the space between the second and third metacarpal and the corresponding metatarsal bones, but without any alteration of their function. In the front limb there is no flexor or extensor arising in the hand, and in the posterior limb there is no flexor or extensor arising from the femur. In the arm the long flexors of the thumb and other digits each arise on the same side of the limb as that to which they are finally distributed. In the leg they arise from opposite sides, and their tendons cross each other. In the hand there is no interweaving of these tendons together, as in the foot. In the hand there is no muscle corresponding to the flexor accessorius. In the arm the extensor muscles cross each other, but in the leg they do not. The quadriceps extensor muscle of the leg has generally been supposed to correspond with the triceps of the arm, but this can scarcely be the case,—the former is situated both in its origin and insertion on the tibial side of the limb, the latter, on the ulnar side; so, though agreeing in function, they differ in homological structure. After leaving the bones and muscles, it becomes a very difficult matter to trace the homotypes among the nerves and vessels, and one which can only be made out by a careful study of development.

PARLIAMENTARY.

On Thursday, February 11, in the House of Commons, in answer to a question by Colonel Gilpin, the Under Secretary for War stated that the Government had decided that—

"All such expenses incurred by Colonel Crawley as were ever paid should in this instance be defrayed by the country. Colonel Crawley's passage from India and back had been paid; he had been in receipt of Indian pay and allowances during the whole time that he was in this country, and quarters had been provided for him at Aldershot. The expenses of all witnesses whom he desired to bring over from India had been paid; and, in fact, no greater expense had fallen upon him than he would have been subject to if his regiment had been in this country instead of India. Everything which in such cases had ever been paid for anybody had been paid for Colonel Crawley. The only expenses which had not been repaid to him were those connected with legal advice. No application had been made by Colonel Crawley for the payment of these expenses, nor could the Government accede to such an application if it was made. The position and *status* of legal gentlemen were not recognised at courts-martial, and the Government would have no means of checking their charges."

On Friday, February 12, Sir G. Grey, in answer to an inquiry from Mr. R. Long, stated that the Under Secretary for the Home Department would shortly give notice of the introduction of a bill, or rather of two bills, intended to remedy the evils arising from the importation of diseased cattle and sheep.

Sir W. Fraser called attention to the insufficiency of the means of egress from theatres in the case of fire or sudden alarm. He limited his observations to theatres, because churches were under the control of the churchwardens, and other public metropolitan buildings were subject to the regulations of the magistrates. Theatres were under the authority of the Lord Chamberlain. One million five hundred thousand persons visited the London theatres in the course of the year.

The Home Secretary stated that the Lord Chamberlain, previous to granting the annual license, required a report from an architect and surveyor, in which the means of egress and the precautions taken against fire were especially noticed. If the report were not satisfactory the managers received an official communication. The effect of these communications and the precautions taken was, that a great improvement had taken place. He believed that at the present moment the means of egress provided in theatres were much more com-

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plete than in any other public buildings. In the case of new theatres, the place was always submitted to the Lord Chamberlain before the license was granted, and one of the chief requisites laid down in such cases was the provision of adequate means of egress.

On Monday, February 15, in the House of Commons, Mr. Bruce, in reply to a question from Lord Enfield, said that the report of the Children Employment Commissioners had been under the consideration of the Government during the recess. A measure was in preparation, and he hoped very shortly to ask leave to introduce it.

The Marquis of Hartington, in reply to Lord Hotham, stated that Colonel Crawley's expenses in the late court-martial would be spread over several of the votes taken last year. It would not be necessary to lay upon the table any supplementary estimate for the purpose. There would be no objection on the part of the Government to furnishing a return showing the total expenses incurred upon the trial of Colonel Crawley.

Sir G. Grey moved the second reading of the Insane Prisoners Act Amendment Bill. We have to correct an error which crept into our last parliamentary report with respect to a clause of this bill. "The whole of the visiting justices of the gaol collectively" are not to be substituted for the "any two justices" who have, under the 3rd and 4th of Victoria, the power of signing the certificate of insanity, but "*two or more* of the visiting justices," if the prison is one to which visiting justices are appointed.

Mr. G. Hardy said that the bill before the House did not provide an adequate remedy for such cases as Townley's. The case of persons sentenced to death ought, he thought, to be kept separate, and dealt with in a different manner from those of other prisoners. The new species of insanity which had been spoken of in Townley's case was never brought forward, except when prisoners were sentenced to death; although, if Townley was really believed to be irresponsible for his actions, it was as great a cruelty to put him on the public works as to take his life. The justices might be allowed to take the initiative in the case of persons only sentenced to imprisonment or transportation; but if a prisoner under sentence of death was once sent to an asylum, it was impossible for the Secretary of State to carry out the original sentence. In the case of a prisoner under sentence of death there was an opportunity before trial and at the trial to inquire into the state of his mind. The verdict should, he thought, be conclusive as to the state of his mind up to the period of the verdict, and the inquiry should only refer to the state of his mind after the verdict and up to the period of his proposed execution. The question then arose how the friends of such a prisoner would be able to bring a certificate under the notice of the Secretary of State. He suggested that the bill should be left as it now stood in respect to persons under sentence of imprisonment or penal servitude. The words of the clause were—"If any person shall appear to be insane;" but did not say to whom. He would suggest that the words should run, "If any person shall appear to the visiting justices to be insane." The visiting justices should represent the insanity to the Secretary of State, who ought thereupon to issue a commission. The inquiry need not be public, but it should be of a solemn and judicial character, and the proceedings should be published. The report of the commission as to the sanity of the prisoner should be binding on the Secretary of State, but would by no means affect the Royal prerogative of pardon or commutation of sentence. It was casting an unwarrantable and unfair burden on the Secretary of State to say that the certificate of two visiting justices and two Medical men was to be compulsory, and that he was to use his discretion notwithstanding. Much dissatisfaction would be felt if the Home Secretary allowed a man to be executed in spite of a certificate of his insanity. The Secretary of State would have the power to appoint a commission; and he (Mr. Hardy) would be sorry to see the commission composed wholly of Doctors; for when one took up those papers and read them through, it was clear there must be lay persons to decide where Doctors differed. For, in the first place, they had a Surgeon who decided when the prisoner was committed that he was sane, and made an entry in the prison-book to that effect; and afterwards the same Surgeon said that the man was mad, though he believed him to be then in the same state as he was in before, but that when he made the entry in the book the man was not legally insane. Then the Commissioners of Lunacy drew a distinction most dangerous to society; for they thought the man was of an unsound mind, but that he was in such a state that he ought to be responsible for his actions. Finally, they had a commission issued, composed of most eminent men, who seemed to have conducted their inquiry with a good sense which contrasted strongly with the previous mode of inquiry; and they came to the conclusion that he was not insane when they examined him. In the old times, when an inquiry was made, it was always as to the motive; but now, when they got the very strongest motive, jealousy, it was said the man was mad, because he had been actuated to commit a crime by the most violent of passions. If the visiting justices represented to the Secretary of State that the man was insane, and ought not to be hanged in that state, then the Secretary of State ought to appoint a commission, an independent tribunal, who should publish openly what they had heard, and the result at which they had arrived; and the Secretary of State, as far as his statutory capacity was concerned, should be bound by that decision; but if he chose afterwards to advise her Majesty to take another course, he should be responsible for that advice, as he was now.

Mr. Macdonogh reiterated his argument that the words, "it shall be lawful," in the Act of the 3rd and 4th Victoria were not imperative, but permissive, and objected that this bill was founded upon a wrong principle; that it should be declaratory only of the construction to be put upon the words of the particular Act.

Sir C. O'Loghlen regretted that the Secretary for the Home Department had thought proper to confine the operation of the bill to England alone. If the present bill passed there would be one law for England, another for Scotland, and another for Ireland. By the Scotch law the sheriff and two Medical men might forward to the Home Secretary their opinion of the insanity of a prisoner, and the moment that opinion was given it was final and conclusive; and the very same mischief which the present bill was brought in to remedy in respect of England might still occur in the case of Scotland. It was proposed by the present bill that the certificate of the visiting justices should be backed by Physicians or Surgeons; but in Scotland the certificate of the sheriff might be backed by an Apothecary. In Ireland the law in regard to these certificates applied only to persons under sentence of imprisonment. It was not applicable to persons under sentence of death; so that a prisoner there under sentence of death, becoming insane, must, if the Act were strictly to be carried out, be hanged, because no power was given to send him to a lunatic asylum, or else he must receive a free pardon. That difficulty was got over by the Lord-Lieutenant commuting the sentence to penal servitude, and then the convict, being under sentence of imprisonment, was sent to a lunatic asylum. He contended that such differences should not be allowed to exist, but that the same law should extend to the whole of the United Kingdom.

Mr. Scourfield supported the provisions of the Bill, although he thought some of them did not go far enough. He said:—

"It had been suggested that a commission should be issued, composed of legal and Medical men, to determine the question of the insanity of a prisoner. The result of such an arrangement would be, that the obscurity which now enwrapped the subject would be as the noontide sun compared with the darkness and chaos which would then ensue. The Medical man and the lawyer necessarily looked at the question of insanity in different lights. The Doctor was bound to consider the welfare of the patient, and the mode of curing him. The lawyer, on the other hand, was bound to consider the interests of the community at large, and the safety of the public. It was most important, in his opinion, that in determining who was and who was not insane, the legal opinion should not be subordinated to the Medical. The report clearly showed that, unless the opinions there laid down by Medical men were closely watched, they would be attended with the most dangerous consequences. For example, it was alleged that unconsciousness of guilt was a symptom of insanity. No doubt it might be one of the symptoms, but it was too much to say broadly that the criminal who was contrite and repentant was sane, and deserving of the full penalty of the law; while another who justified his misdeeds, and would not express any compunction for them, should be deemed insane, and allowed to escape with impunity.

Mr. Hunt called attention to, and reiterated some of the objections urged by Mr. Hardy. He thought the bill, so far as it went, would not place the law in a satisfactory state.

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Mr. M. Smith, having considered the defects of the law and the provisions of the bill, had come to the same conclusion as Mr. Hardy. He urged that the question of the supervening insanity of a prisoner should be determined by the old constitutional form of inquiry by a jury.

Sir G. Bowyer, having explained that he had not recommended but deprecated the adoption of the scheme of a congress of Doctors and lawyers, said that he wished to call the attention of the House to a question which had excited considerable interest in Medical circles. The certificate in Townley's case was signed by a gentleman named Harwood, who was not a Practitioner registered under the Medical Act. A doubt having occurred to the right hon. baronet the Home Secretary, whether, under those circumstances, the certificate was valid, he had consulted the Lord Chancellor, who had given it as his opinion that, although Mr. Harwood was not registered under the Medical Act, the certificate signed by him was perfectly good. Now, it so happened that the 27th section of the Medical Act contemplated this very case, and it enacted that "no certificate required by an Act now in force, or that may hereafter be passed, from any Physician, Surgeon, Licentiate in Medicine or Surgery, or other Medical Practitioner, shall be valid unless the person signing the same be registered under this Act." There was clearly a conflict between the opinion of the Lord Chancellor and the words of this section, and he should like to hear what the right hon. baronet thought upon the subject. The proper time to discuss the details of this bill would be when it got into committee. All he could say upon the second reading was, that a change of the law was undoubtedly necessary, and, therefore, they were bound to support a measure which was brought forward by the Government for the purpose of remedying notorious and undoubted evils. He objected to the joint commission composed of Physicians and lawyers, because he thought the two classes of men would, to a certain extent, act at cross purposes. The legal and Medical ideas of insanity were quite different. Physicians would examine a man's sanity with reference to the condition of his brain; while the only question which would present itself to the mind of judges or commissioners in deciding whether a man was sane would be, was his state of mind such that he was responsible for his actions? A man might have something morbid in the recesses of his brain, and still be sane for all practical purposes, and amenable to criminal law. A man, on the contrary, who after sentence fell into a state in which he became unconscious of his actions, was justly exempted from punishment, being, in the words of a great authority, "sufficiently punished by the insanity with which he was visited by Providence." The only constitutional method of testing whether a man had become insane after his conviction was, in his opinion, trial by jury. (Hear, hear.) But whether the fact was established by the decision of a jury or of a commission, Medical men ought to appear as experts, and not as judges. The great defect of the present day was, that Medical men appeared not as witnesses, but as advocates; if set in motion for the prisoner, their object, disguise it as they might, was really "to get him off." The question of sanity, if raised at all, ought to be treated by parties having no interest in the case other than the elucidation of truth; and he thought it might be worth considering whether the Crown ought not to appoint Professional gentlemen of high standing, who would deliver their opinions officially—of course receiving a proper remuneration.

Sir F. Kelly, after reviewing the state of the common and statute laws upon this subject, and showing the imperfections of the Act 3rd and 4th Victoria, pointed out what he regarded as defects in the bill, which provided, he said, no remedy for an important error in that Act. It made no distinction between one kind of unsoundness of mind which exempts an offender from responsibility for his actions, and another kind which leaves him responsible. Referring to the case of Townley, he insisted upon the unconstitutional character of the jurisdiction exercised by the Secretary of State. He urged this upon the House, not for the purpose of imputing a shadow of blame to the Secretary of State, but of showing the unconstitutional and mischievous character of the Home-office jurisdiction. He trusted that jurisdiction would soon be put an end to, and with that object he should shortly ask leave to introduce a measure, by which the great question of life or death should be referred to the true constitutional and legal tribunal—a judge and jury. In order to avoid the absurdity of acting on the certificate sent up from the country, the right hon. gentleman was obliged to send four Medical men to examine Townley in the asylum, and they reported, not that the prisoner had become sane, which was what the Act of Parliament required, but that Townley was then sane. It was never intended by the Act of Parliament to confer such a power on the visiting justices, but it was left open to the right hon. gentleman to act as he thought fit. By the bill as now proposed, it was again to be left to two justices and any Medical men they might select to set aside the verdict of a jury where sentence of death had been pronounced. He should object to this clause; and he trusted that when the House went into committee the provisions of his own measure would be before the committee. It would then be for the House to say whether the duty of deciding in such cases should rest with the Secretary of State, or whether it should be decided by a judge and jury. He was aware that not until capital punishments were abolished would unseemly questions of this nature cease to arise. If the time had come for abolishing capital punishments—and, if not, he trusted it would soon arrive—no one would rejoice more than himself at the substitution of some life-long and effective punishment. Until then, he hoped that the Government would not perpetuate the fundamental error of applying to capital cases the law which was enacted in cases of ordinary felonies and misdemeanours, and which had been productive in Townley's case of so much confusion, mischief, and dissatisfaction.

Sir G. Grey discussed the suggestions which had been thrown out in the course of the debate (as to some of which, he said, he should not express a decided opinion), especially the main suggestion of Mr. Hardy, that cases of prisoners under a capital sentence should be dealt with in a separate manner. There was nothing in the bill, he said, to prevent the capital sentence in a case similar to Townley's being legally carried into execution. He remarked, with reference to that case, that the inquiry after conviction was no revision of the verdict of the jury, but was consequent upon alleged insanity supervening after conviction. With regard to the non-registration of the Medical man who signed Townley's certificate, he reiterated the Lord Chancellor's opinion, that as Mr. Harwood had acted as Surgeon for forty-three years, and had frequently signed certificates of lunacy, his signature was valid. Admitting that the law respecting criminal lunatics in Scotland and Ireland was not satisfactory, he stated that the delay which would have arisen from the necessity of consolidating numerous statutes rendered it inexpedient to extend the bill to those parts of the United Kingdom. He added that he should be happy to receive suggestions from hon. members in committee.

The bill was then read a second time.

The discussion which followed on the motion, that the Malt for Cattle bill be read a second time, turned principally on the amount of benefit which would accrue to the agricultural interest, and upon the general question of the malt duty.

In answer to Mr. Bass's objection, that the admixture of ten per cent. of linseed would not spoil the malt for brewing purposes, the Chancellor of the Exchequer said he relied on the results of experiments made by the Chemical Staff of the Inland Revenue Board. He instanced the satisfactory results which had ensued on adopting the recommendations of the chemists attached to that Board in the case of methylated spirit and tobacco. He said that since Baron Liebig's report, which was read in the previous debate, he had received a similar one from Dr. Lyon Playfair. Dr. Playfair takes the same view of the matter as Liebig. He admits that, while the effect of malting barley is to diminish the sanguifying ingredients, on the other hand it makes them more soluble and accessible; and therefore, either with reference to feeding as a whole, or with reference to feeding in certain states of the animal, or in combination with other articles of food, this process may produce, if not a primary, at least a very important secondary article of diet for cattle.

On Tuesday, February 16, Mr. Adair (for the Hon. D. Fortescue) gave notice of the intention of the hon. member for Andover, on March 15, to bring under the notice of the House the case of the court-martial on Colonel Crawley, and to move for further papers.

FROM ABROAD—THE TRICHINA-PANIC IN GERMANY—LIGATURE OF THE COMMON CAROTID IN A CHILD—THE FRENCH RAILWAYS.

When Mr. Hilton, many years since, discovered, in human muscle, the small encapsulated body which Professor Owen afterwards showed to contain a microscopic worm, named by him *trichina spiralis*, little did either *savant* anticipate the

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important part this apparently mere scientific curiosity was destined to play. At the present day, the frequency with which it has been found in the muscles and intestines of the pig, and the fatal and serious results which have attended the consumption of flesh so contaminated, has spread a true panic throughout Germany. Pig-eaters in every form, *par excellence*, the Germans have now forsworn this description of food, and herds of swine wander about marketless, to the ruin of their owners. Great exaggeration, we do not doubt, prevails in the accounts which have reached this country as to the number of deaths that have been produced; but enough is certain to render the case a very alarming one, as Professor Virchow admits, who has just published a popular account of the *trichina*, in order to allay popular alarm by representing the truth as it really exists. A committee has also been appointed by the Berlin Medical Society, consisting of Virchow, Remak, Gurlt, and others, to examine into and report upon the whole subject. We fear that neither Virchow's pamphlet, nor anything else that has been written, will tend much to allay alarm; for all fail in pointing out the cause of the affection, or why it should have become so prevalent at the present time, and more especially in Saxony. The mode of feeding the pigs is pretty much the same now that it has always been; and, although cases of sausage-poisoning have long been familiarly known in Germany, the present prevalence is something quite new. Virchow, indeed, seems to think that the swine flesh must have always been, more or less, infected with *trichinæ*, and that its frequent communication to man at the present time is much to be attributed to the rapid and imperfect smoking which the hams and sausages undergo, at the present day, compared with former times. Thus far, the disease has not been met with in any animal that is a vegetable feeder; and Dr. Langenbeck says that *trichinæ* have been found in extraordinary numbers last year in earthworms (as many as 500 or 600 having been seen in a worm of middling size), which form part of the food of the animals which swine feed upon when left at liberty. He advises the swine to be always fed in styes, and debarred access to localities where worms are numerous. It is not reassuring to find that there is no symptom indicative of *trichiniasis* in the pig, which, to all appearance, may be a highly healthy animal, the microscope being, indeed, the only means of detecting the presence of the worm. Effectual cooking seems the only means of assuring against ill-consequences; and when poisoning does occur from *trichinæ*, beyond the mere use of emetics or purgatives in the earliest stages, there is at present no remedy known, a natural cure of the disease taking place, however, in many cases, by the encapsulation of the *trichinæ* in the muscles. Seeing that a large importation of German hams and sausages takes place into this country, it behoves our sanitarians to turn their attention to this matter, as one also practically concerning ourselves. Moreover, what assurance have we that our own swine are free from the disease?

An interesting case of ligature of the common carotid in a child was related by Dr. Weinlechner at a recent meeting of the Vienna Medical Society. A girl, aged 3 years, in the middle of last November, fell ill with measles, which became complicated with diphtheritis. In the course of the disease, an abscess formed in the right side of the neck, below the mastoid process, and this was opened. Soon afterwards a tumour arose in the same region, which rapidly increased, displacing the larynx, lower jaw, tongue, and cervical muscles from their normal positions, and, on December 1, burst externally, causing hæmorrhage to about twelve ounces, which was arrested by pressure. On the 15th, arterial bleeding to about four ounces recurred. Dr. Weinlechner saw the child then for the first time, and was disposed to regard the tumour as a highly vascular, medullary carcinoma; but strong pulsations in its centre, and the large jets of arterial blood, convinced him that he had to do with a spurious aneurism of the carotid, arising from rupture of the arterial parietes. The child being very anæmic, and rupture of the aneurism at another point threatening to take place, it was resolved to tie the common carotid below the tumour. The limited space, and the distortion of the parts caused by the tumour, rendered this a matter of difficulty, but it was accomplished with only slight loss of blood. The wound soon healed, the ligatures coming away on the second day, and the tumour had diminished, on the child's presentation to the Society on January 15, to a third of its former size. The collateral circulation had then also become so far established as to allow of pulsation being felt in the right submaxillary and temporal.

Dr. De Pietra Santa published, in 1859 and 1861, an account of the advantages which the public health has derived from railways, as evidenced by the experience derived from the French lines. In a recent communication he brings the communication down to the present time, his sources of information being elaborate Government reports, and the reports of the Medical officers attached to the great lines. In respect to these latter, we may observe that the French lines, from the earliest times of their formation, have been placed under organised Medical *surveillance*. The Medical officers, constituting now a numerous and somewhat united body, are charged with the duty of supplying speedy assistance in the case of accidents, with attending to the sick and convalescent among the *employés*, the superintending all hygienic appliances, and forwarding periodical reports to the directors. The general conclusion which M. Pietra Santa arrives at is, that railway travelling, some exceptional cases apart, exerts a highly beneficial influence upon the health; and his investigations do not seem to corroborate the somewhat highly-drawn pictures of the mischief resulting from it which have had some currency amongst ourselves. With respect to accidents, he enters into an examination of the official returns; and from these it appears that between the years 1856—62, the number of travellers amounted to 314,186,161, and among these there occurred 72 deaths and 894 injuries, 55 of the deaths and 280 of the injuries not being the fault of the railway administration. Thus, there was only 1 person killed in 4,363,696, and 1 injured in 351,438 travellers; and by a comparison with the accidents produced by the old diligence travelling, M. Pietra Santa finds that there are fourteen chances to one in favour of making a safe journey in a railway carriage compared to a diligence. The reports of the Medical officers of the various railway lines concur in affirming the superior condition of health enjoyed by the various *employés* as compared with that of persons of their own age elsewhere; and this improvement has been found continually progressing, a fact due no doubt to the various hygienic measures which are put into force and insisted upon. The French lines now in operation measure more than 10,000 kilometres.

POGONOTROPHY.—Dr. Belcher, in December last, read a paper before the College of Physicians in Ireland on "The Hygienic Aspect of *Pogonotrophy*." Under this sounding title, he made a forcible appeal in favour of wearing beards. Ancient history, Scripture, and mediæval records were put under contribution, the physiological use of the beard was considered, and the hygienic results of its free growth. Strong disapprobation was expressed at the arbitrary rules enforced in the army and navy, by which sailors are required to shave, and soldiers to leave a space of two inches between the moustache and whiskers. The writer concluded with some humour:—"The jolly shaven head and face of a century ago asserted a clear principle, that art was better than nature; the bearded man of this day asserts that nature is better than art. But the whole set of *compromisers*—inch-whisker men, jaw-whisker men, donkey-eared-whisker men, Newgate-frill men, Frenchified, moustached, or would-be-military men—have no reasonable ground on which to rest their opposition to the constitution and course of nature. They are alike opposed by the conclusions of anatomy, physiology, hygienic medicine, and by every principle of sound physiology." Dr. Belcher is evidently no barber-Surgeon.

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REVIEWS.

Topics of the Day: Medical, Social, and Scientific. By J. A. Hingeston, M.R.C.S., etc., etc. London: John Churchill and Sons. 1863.

The title of this collection of essays is fairly explanatory of the contents. About 400 pages are well occupied with a varied list of subjects, which it would appear have previously come before the world in a periodical manner. As they mostly bear the character proper to such compositions, and aim at a concise review of the materials before them, it is difficult to furnish a short *resumé* of their peculiarities, and, by so doing, to submit, as it were, the *defruta* of a practised pen to a still further concentration.

In a first part, atmospheric phenomena are viewed in relation to cholera, and to health generally. Solar eclipses and vaccination, the latter topic followed by some rather stormy correspondence between the author and the late Dr. Lever, of Guy's Hospital, bring the purely scientific section to a close.

The second part deals mainly with mental and psychological subjects. Hypochondriacism; ethnological psychology; the human brain; duality of mind; deformities of infantile cranis; the deformed, and their mental characteristics, form its substance, followed by two brief notices of Cleopatra's death, and Horace's death. This topic, perhaps, might receive advantageous expansion. Cleopatra is supposed to have died from the bite of a cobra, or some congener; Horace, from diabetes, the latter diagnosis being in part derived, and with some humour, from the "Intermissa Venus diu, rursus bella moves" of the poet.

The third probably represents the social portion of the title. In the first essay, named "The Wear and Tear of Medical Life," occurs much that may be read with profit by all members of our Profession, from the youngest student upwards. From this we have already laid an extract before our readers. "Three Thousand a-year: a Soliloquy," is not in the best taste. "Homœopathic Triumph" is a good ironical groan at its ephemeral success. Six articles on general topics, entitled severally "The War of 1854," "The Peace of 1856," "The Indian Rebellion in its Moral and Psychological Aspects," "Orientalism," "Ancient and Modern Civilisation," and "Change of Scene," conclude the work.

A short preface recapitulates certain points in which the author had preceded public opinion in his views and observations. It reads in places rather oddly; but, on the whole, Mr. Hingeston writes like a scholar and a gentleman, and has brought forth a somewhat heterogeneous, but readable and interesting volume.

The Medical Mirror: a Monthly Magazine of Current Medical Literature and News. Nos. 1 and 2, Jan. and Feb., 1864. Price 1s.; or 10s. per annum. London: H. K. Lewis, 15, Gower-street North, W.C. Pp. 64.

We give the most cordial reception to this new member of the English Medical periodicals. Truly, there is no lack of materials to fill its pages. Never was there a time when the Medical mind and pen were more active, and when the already-established periodicals groaned more heavily under press of matter, and authors were more clamorous for *immediate* insertion. There can be no doubt, then, that the pages of the *Medical Mirror* will be filled easily enough. We hope that the number of Medical readers is also increasing in proportion to that of the writers, and that the publisher will reap the just reward of his enterprise. Amongst the contributors are Mr. J. Z. Laurence, Dr. Meadows, Mr. Maunder, Mr. Napper, Mr. H. Smith, Dr. Hillier, Mr. Power, and Dr. Drysdale.

Another Blow for Life. By George Godwin, F.R.S., Editor of the *Builder*, etc., etc.; assisted by Mr. John Brown. With forty-one illustrations. London: W. H. Allen and Co. 1864.

This is a capital book, in spite of its odd title and the occasional vehemence into which the writer is betrayed. Mr. Godwin's knowledge and experience in construction, added to his literary standing as editor of one of the very best "special" newspapers extant, qualify him to speak authoritatively on the subjects with which he deals. The title, being interpreted, means a detail of facts as to the homes of the lower orders in the east of London, the neglect of drainage, over-crowding, bad water supply, and disregard of ordinary precautions for health in cellars, shops, ships, hotels, and yards. Suggestions are made for good cookery, window-gardens, and many other valuable points.

Sanitary reform is the key-note of the work, and on this subject Mr. Godwin writes better than most sanitarians, because more precisely and by rule. The mind of an architect and builder seems trained to look at social evils of a material kind with more materialism, and therefore less vagueness, than some who proffer higher claims on our attention. With him, damp is damp, stinks are stinks; and drains or cesspools, visible, tangible enemies to health. This is vastly more satisfactory than zymotic, miasmatic, enthetic, dietic, and other learned but intangible causes of disease, where we half suspect, while we admire, the erudite statements of our philanthropic advisers.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

January 26.

The effect of the few days of severe cold upon the mortality of our town has been terribly distinct. Dr. Trench reported to the last meeting of the Health Committee, that the deaths in the week ending January 16 amounted to 439, being 155 in excess of the corrected average of the last ten years, and 79 more than those of the worst week of the cholera epidemic of 1854. Pulmonary diseases, including phthisis, accounted for 208 of the deaths. Unhappily, it is evident that the cold has not been the only cause of this frightful mortality, since persons of middle age appear to have suffered in equal proportion to the very old or very young, 177 between the ages of 30 and 60 years having died during that week; and it can hardly be doubted that insufficient food and clothing have occasioned a sadly large proportion of these latter cases, especially though only one death was registered as due to "cold and destitution." Another and more important report was presented to the same committee by Dr. Trench for the whole of the past year, 1863. It seems that we can claim no exemption from the generally high rate of mortality prevalent over all England, and especially in the manufacturing districts. The deaths registered in the borough were 15,266, a number greater than in any year since 1849, and 524 above the corrected average of the last ten years. There were no epidemics, no sudden elevations in the numbers of deaths, but a constant increase from January to December, to which every disease contributed its quota. In the prosperous years 1859 and 1860, the death-rate amounted to 27·5 and 25·7 per thousand, which may be regarded as the standard death-rate; but in 1861, 1862, and 1863, the proportion was 29·1, 29·9, and 33 per thousand; yet in these years the same sanitary regulations were enforced, and there were no atmospheric conditions evident to which the augmentation in the mortality could be ascribed. Dr. Trench believes that the "type" of prevalent diseases has been modified, and that the tendency to death from all diseases was, in these three years, above the average. Zymotic diseases in 1863 caused 29·2 per cent. of all deaths, the average of the past ten years being 25·9; and, estimating the probable number of persons who have suffered from typhus, from Dr. Murchison's average of one death in every ten cases, it appears likely that there were about 11,650 cases of typhus in the borough last year. An analysis of the localities in which the deaths from this cause took place, brings out with startling clearness the old fact, that unventilated courts and alleys are the native habitations of this abominable pest. Thus, 691 deaths occurred in private houses, and of these 201 were in "courts"—an enormous proportion, when their area is compared to that of the rest of the town; but then we must add to this tale of victims 468 who died in workhouses, and, as these were all paupers, we may safely assume that more than three-fourths of them came from similar places.

Only six deaths are recorded as having occurred in Hospitals. This is due to the fact, that the Royal Infirmary, the Northern, and the Southern Hospitals, do not admit these diseases, so that all pauper fever patients go to one or other of the workhouses; those, not paupers, who cannot be nursed at home, go to the Institution for Infectious Diseases in Everton.

It is a lamentable fact, that, in spite of all the efforts of the parochial authorities to enforce vaccination, there were 100 deaths from small-pox last year. Deaths from tubercular

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diseases were within the average—being 14·2 per cent. of the whole mortality of the borough—thus carrying out the curious rule, that when the mortality from zymotic diseases becomes high, that from tubercular diseases diminishes.

The deaths among children are frightfully high, in proportion to the general mortality. 7601 of them died under 5 years of age (only 64 less than half of all the deaths), and of these 6346 were under 2 years, and 4496 under 1 year. Dr. Trench very truly says, that these deaths may, "under certain restrictions, be regarded as equally just tests of the moral characteristics of the people, as of the sanitary conditions of their homes"—an assertion supported by the fact, that 108 infants were found suffocated in bed during the year, and that 70 of these cases occurred between Saturdays and Mondays. All things have a bright side, however, as well as a dark one. Only think how gratifying it must be to the publicans and their friends to have such conclusive evidence as that afforded by the fact just mentioned, that, whatever depression exists in other trades, their own at least is flourishing!

At a recent meeting of the Medical Society, the account of three consecutive successful cases of ovariotomy was read by Dr. Grimsdale:—

Case 1, aged 35, had been married ten years, and had had six children, the youngest being, when first seen (January, 1863), sixteen months old. When about four months advanced in pregnancy with this child she noticed that she was much larger than might have been expected. She had a somewhat tedious labour, and four days after suffered severe pain in the side, for which leeches were applied. She kept her bed six weeks; at the end of that time her abdomen was about as large as that of an ordinary woman at the full term of gestation. The tumour increased up to the time of her seeing Dr. Grimsdale, when the measurements were,—circumference at umbilicus, forty-seven inches; from scrobiculus cordis to umbilicus, fourteen inches; from scrobiculus cordis to pubis, twenty-four and a-half inches. Abdominal parietes thin, not very tense; superficial veins much enlarged; no solid to be felt; frictional fremitus on left side below umbilicus. There was evidence of scattered adhesions over the anterior surface. Uterus movable; os open. By the middle of June the circumference at the umbilicus had increased to fifty-one inches, the length from the scrobiculus cordis to the pubis to twenty-nine inches. On June 22 she was tapped, and sixty-three pints of thick fluid, like porter, removed. The cyst refilled, and on September 2 the operation was performed. An incision of four or five inches in length exposed the tumour; some adhesions were easily broken down, the cyst was tapped, forty pints of porter-like fluid drawn off, and it was then easily brought through the incision. The peduncle was found rather short and broad, and there were several small cysts at the base of the large one. No adhesions to omentum or intestines. The opposite ovary was healthy. The clamp was applied, and left at the lower end of the wound, which was closed by four interrupted silver sutures, carried through the abdominal parietes, including the peritoneum. A few superficial wire sutures and some strips of plaster, a layer of cotton wool and a bandage, completed the dressing of the wound. At 11 p.m. pulse 92 (it was 90 before the operation), once sick, no pain. September 3, 8 a.m.—Vomited three times in the night; no pain; some sleep; pulse 72. To take arrowroot and half an ounce of brandy every two hours. 12·50 midnight.—Pulse 66. 4th.—Restless night; nausea, but no vomiting and no pain. Wound looks well. 5th.—Bad night; pain in abdomen. Ordered enema with ɱxx. tinct. opii, after which she was relieved and she slept. 6th.—A good night; pulse 80; upper part of wound healed; very little discharge around the clamp. 8th.—Still doing well; clamp removed. 10th.—Four wire sutures removed. From this time she progressed well, and left the Lying-in Hospital on the 24th.

Case 2 came to the Hospital on February 5, 1863. She was then 21 years of age, had been married three years, and had one child two years since. Menstruation regular, but scanty. Two months after delivery had severe pain low in the right of abdomen, which continued with scarcely an intermission for about ten months. In March, 1862, first noticed a swelling, which continued to increase, though the pain decreased. On examination, the whole cavity, from the pelvis to the ribs and epigastrium, was found filled with an irregular tumour, consisting of separate cysts with much solid matter, and extensively adherent to the abdominal walls; os uteri drawn up almost out of reach of the finger; no tumour to be felt per vaginum. In November the tumour had not increased much, but she was getting weak and thin. She was, therefore, admitted into the Hospital; and after a preliminary tapping of the most prominent cyst (to lessen some œdema which existed below the umbilicus), and a few days' rest in bed, the operation was performed on December 1. An incision about six inches long from the umbilicus downwards exposed the most prominent part of the tumour. Its adhesions were broken down, and it was punctured with the large trocar, but nothing flowed. It was, therefore, laid freely open, and through its cavity several others were opened, thus reducing the bulk of the tumour. After separating some very firm adhesions at the upper part of the tumour, and enlarging the incision, the mass was drawn through the wound. A large piece of omentum was found adherent. This was separated, one bleeding point tied, and it was returned. The peduncle, which was thick and of fair length, was secured by the clamp, as in the last case. The wound was closed by thirteen deep silk sutures and some superficial ones. The other dressing as in the former case. 10·45 p.m.—Pulse 136, skin moist, tongue dry, no pain, once sick. December 2.—Passed a good night. Skin moist, but tongue dry, pulse 132. Slight oozing around the clamp. Some portions of the stump removed. To have tea, arrowroot, and barley water. 11·10 p.m.—No pain, sick three times. 3rd.—Pulse 110; doing well. Two deep sutures removed. 4th.—Nine deep sutures removed, no suppurution around them. 5th.—Clamp removed. 6th.—One more deep suture removed. 8th.—Some griping pain. 9th.—Some swelling above left groin, much relieved by an enema of gruel and castor oil. She went on favourably, and was discharged cured on December 28.

Case 3.—A lady, aged 35, unmarried, had suffered from pain low on left of abdomen and vomiting, especially after meals, for the last two months of 1862. In January, 1863, first noticed abdominal swelling; menstruation regular. On examination, a small globular, movable tumour was found in the site of the left ovary. By the middle of July she suffered so much from pain, vomiting, and tympanitic distension, that it was decided to tap her, and on July 28 eleven pints of viscid, straw-coloured fluid were thus removed. The sac refilled, and on December 2 the operation was performed. An incision of about four inches was made; some adhesions on the left side, extensive but not strong, were broken down; the cyst was tapped, and eleven pints of fluid drawn off. The sac was brought easily through the wound, and its peduncle (which was thick, broad, and long) was secured, as in the others, by the clamp. The right ovary was healthy. Five deep silk sutures, and three superficial ones, were used. The other dressings as before. For twenty-four hours after the operation there was almost constant vomiting, and for about eight hours bearing down pain, requiring three opiate enemas for its relief. Pulse 120; tongue moist, but raw looking. Ice, barley-water, champagne, brandy, oxalate of cerium, and effervescent mixture gave no relief. Fomentations did good, both for the pain and the vomiting. The matter vomited was so acrid as to excoriate the side of the mouth. Thirty-four hours after the operation there was less sickness; pulse 96. December 4.—Has slept some hours; not vomited since 1 a.m.; pulse 86; takes only ice and water, and uses warm fomentations. 5th.—Some flatulence and colicky pains; four deep sutures removed. 6th.—One more suture removed; wound irritable in places. Very free discharge from the peduncle; pulse 100; skin rather hot and dry; some more vomiting. 7th.—Restless night; some pain; pulse 100; some suppuration in the track of the wound; clamp removed; more abdominal pain, relieved by opiate enema and fomentations. 8th.—No pain or sickness; wound looks well; pulse 96; she begins to take nourishment. From this period she went on uninterruptedly to complete restoration to health.

HONOURS TO MEDICAL MEN.—Dr. Peter Stoffella has been made a Knight of the Austrian Order of the Iron Crown. By the comments of the Vienna press on the appointment, we conclude that Doctors, with respect to the higher honours, stand there pretty much in the same position with ourselves. This is the first occasion, it is said, that this order has been conferred upon a mere Medical Practitioner. That which after some years' service is no uncommon reward for the soldier or statesman, and is conferred for special services upon a bank-director, a railway-contractor, or an army-purveyor, is thought too much for the man who devotes his life and strength to suffering humanity. Even Dr. Stoffella probably owes the honour to the high position he has long enjoyed as Court Physician, first at Modena and now at Vienna.

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GENERAL CORRESPONDENCE.

ON THE ISOLATION OF INFECTIOUS DISEASES.

LETTER FROM DR. MURCHISON.

[To the Editor of the Medical Times and Gazette.]

SIR,—In some excellent remarks on the subject of contagion, in the last number of the *Medical Times and Gazette*, you have called attention to the want of sufficient means of isolating infectious diseases in public Hospitals. There are few subjects on which more difference of opinion exists, and none more deserving of discussion.

The establishment of fever Hospitals and fever wards dates from the commencement of the present century; and they were established because it was found that, when patients suffering from an infectious fever were admitted into wards occupied by other patients, "the disease was apt to spread to an alarming degree, so as to require a general dismission of the patients." The circumstance that most of the nurses and other officials of fever Hospitals contracted fever, coupled with the fact that, in certain fever Hospitals, the mortality was unusually high, produced a reaction in favour of mixing the patients, although the evils referred to were unquestionably due, in a great measure, to the buildings devoted to fever being overcrowded and badly ventilated.

At the present day, Professional opinion is divided on the subject. From an extensive inquiry which I made several years ago, I ascertained that the prevalent practice in the Hospitals of the United Kingdom was to isolate cases of contagious fever. The general Hospitals of London constituted an exception. Here the custom was, and still is, to treat them in the same wards with other patients, notwithstanding that the history of many of these Hospitals demonstrates the dire results which have too often resulted from the practice in question.

It is in this phase of the matter that certain non-professional sanitary reformers come forward, and dogmatically assert that contagion is a myth, and that all cases of infectious disease ought to be distributed through the wards of general Hospitals, and who denounce fever Hospitals and fever wards as at all times a crime against humanity, and a disgrace to the age in which we live. Before proceeding to institute a comparison between the results of isolation and of mixing, I may be permitted to remark, that the most strenuous upholders, in the Medical Profession, of the system of mixing utterly condemn such an extreme view as visionary and impracticable. Take typhus fever, for example: it is universally admitted that there is danger of its spreading in a general ward, if the proportion of cases at any one time be greater than 1 in 5 or 1 in 6. Now, in the year 1862, the number of patients suffering from true typhus, admitted into all the general Hospitals of London, probably did not exceed 400; whereas in the same year 1827 typhus patients were admitted into the London Fever Hospital, and a still larger number were probably treated in the fever wards attached to several of the parish infirmaries. When we consider the results which followed the admission of a few hundred typhus patients into the general Hospitals, some of which results are mentioned below, it is not difficult to picture the consequences which would certainly have ensued if there had been no fever Hospital and no fever wards in London, and if the thousands of typhus patients treated in them had been distributed through the general Hospitals of the metropolis. Although the abolition of the London Fever Hospital was actually advocated as a sanitary measure in this very year 1862, there are few members of the Profession, whatever be their views as to isolation or mixing, who refuse to concede that fever Hospitals and fever wards are necessary for the surplus number of patients in all large towns liable to be visited by typhus.

I now proceed to draw a comparison between the results of isolating cases of infectious fevers, and the plan of mixing them at present followed in the general Hospitals of London. And first I would remark that, whatever plan be adopted, the attendants upon patients sick of certain diseases, even in the best ventilated Hospitals, must run a certain amount of risk. No Medical man endowed with common sense, and with any experience of small-pox, scarlet fever, or typhus, believes for a moment that these diseases are not eminently infectious. The question to be decided is, by which of the two plans a given number of cases can be treated with the least risk of the diseases spreading. The objections urged against fever Hospitals and fever wards are two—viz.: 1. That the concentration of the poison increases the mortality among the patients themselves; and 2, that the concentration of the poison increases the danger to the attendants. The validity of these objections, which are too often made without reflecting on what would be the alternative if all cases of infectious fever were admitted into general Hospitals, may be tested by comparing the results of the treatment of typhus in the London Fever Hospital with those in six of the principal general Hospitals of the metropolis in the year 1862.

During the first six months of 1862, 1107 cases of true typhus were under treatment in the London Fever Hospital, of which number 232 died, or the mortality was 20·95 per cent. In the same period, 343 cases of typhus were under treatment in six of the general Hospitals of London, of which number 80 died, or 23·32 per cent. It may be added that nothing contributes more to a fatal termination in typhus than advanced age, and that the proportion of aged typhus patients is much larger in the London Fever Hospital than in the other Hospitals of London, because a large proportion of them are the aged and decayed inmates of the metropolitan workhouses, and also that a much larger proportion of them are moribund and beyond all hope at the time of admission; 56 of the 232 cases mentioned above dying within forty-eight hours of their arrival at the Hospital. But leaving these elements out of the calculation, inasmuch as we do not possess the actual figures, on the other side, the bare fact remains that the rate of mortality from typhus was greater in the general Hospitals than in the Hospital specially devoted to fever. The result, however, is insignificant in comparison to what follows. The 1080 (1107 — 27) cases admitted into the Fever Hospital communicated the disease to 27 persons, of whom 8 died. In other words, only 1 person took the fever for every 40 admitted, and only 1 died for every 135. But the 272 cases admitted into the six general Hospitals communicated the disease to 71 persons, of whom 21 died; or 1 person caught the fever for every 3·8 cases admitted, and 1 life was lost for every 12·9 cases admitted.

The actual data upon which this calculation is founded are as follows:—

Hospitals.	No. of Admissions of Typhus.	Cases contracted in Hospital.	Total.	Deaths.
St. Mary's, January 1 to June 30, 1862	16	1	17	3
St. Bartholomew's ,, ,, ,,	89	23	112	30
St. Thomas's ,, ,, ,,	92	12	104	16
Guy's ,, ,, ,,	40	21	61	21
Middlesex, January 1 to Sept. 30	25	6	31	8
German, Dec. 1, 1861, to Feb. 28, 1862	10	8	18	2
Total	272	71	343	80

It is possible that the above comparison may be objected to, on the ground that the time selected was unfavourable to the general Hospitals. It is certainly not a common occurrence for typhus to spread in so many of the general Hospitals at one time, but this circumstance was due entirely to the unusual prevalence of typhus in all parts of the metropolis. It would not be difficult to cite many instances of an older date, where typhus has spread in general Hospitals, even to a greater extent than that indicated above; while, since the comparison was made, the admission of two or three patients suffering from typhus into three general Hospitals of London (two of which are not included in the above list), has been followed by an alarming and fatal spread of the disease. Moreover, the time selected was far from being the most favourable to the London Fever Hospital. In the first place, the rate of mortality was considerably above the average; during last year (1863) the rate of mortality among upwards of 1300 cases of true typhus was only 16 per cent., including cases moribund on admission. In the second place, owing to the small prevalence of fever during the years 1858—61, the staff of the Hospital had been reduced to a minimum; and on the sudden outbreak of typhus at the beginning of 1862, it was necessary to engage a large number of unseasoned nurses. During the fourteen years immediately preceding the date of the comparison, 3680 cases of typhus fever were treated in the Fever Hospital; but the disease was communicated to only 53 persons (nurses and patients), of whom 14 died. In other words, only 1 person caught the fever for every 70 under treatment, and only 1 died for every 263 under treatment. Moreover, many of the persons who caught fever in the Hospital were patients admitted with other diseases, and who were formerly treated in the same wards with the typhus patients; many, in fact, caught typhus in consequence of the principle of isolation not being sufficiently carried out.

Since June, 1862, the typhus and scarlet fever patients have been isolated from the other patients, and from one another, and the result has been, that only two or three patients have contracted either of these diseases in the Hospital since the change was made.

Again, some, no doubt, will be inclined to refer the spread of typhus in the general Hospitals to deficient ventilation, or to carelessness on the part of the attendants. If the ventilation of the principal general Hospitals of London, notwithstanding the amount of skill and science brought to bear upon them, be so defective as such an argument would lead us to infer, then I have only to say that we must take the Hospitals as we find them; and that, until we can build Hospitals in which such occurrences cannot take place, we ought not to put cases of infectious disease in the same wards with other patients. As regards carelessness on the part of the attendants, it may be said that, make what regulations you will, *humanum est errare*. As you justly observe, human carelessness can never be ignored in forecasting the probabilities of the spread of fever under the circumstances in question. Valuable lives ought not to hang upon the absolute perfection of Hospital nurses. That much may be done towards preventing the spread of fevers by thorough ventilation, I contend for as boldly as any man; but I am sure of this, that the amount of ventilation necessary for the purpose would be absolutely fatal to many of the patients in the wards of a general Hospital—to patients, for example, suffering from bronchitis or acute renal anasarca.

The question then resolves itself into this. A certain number of cases of infectious fever having to be treated, how can this be done with most advantage to the patients and with least danger to the attendants? From what has been stated, I think it is legitimate to infer that, on the plan of isolation, provided there be ample ventilation, they can be treated with equal advantage to themselves, and with far less danger to the attendants, in proportion to the number of cases treated. That the attendants, even in a well-ventilated fever Hospital, run a greater risk than the attendants in a general Hospital, there can be no doubt; but this is not due (or, at all events, need not be) to a concentration of the poison, but to the sources of infection being more numerous. In fact, if 2000 cubic feet of space be allowed to each patient, and if there be at the same time thorough ventilation, there need be no more concentration of the poison in a fever Hospital or in a fever ward, than in a general Hospital or in a general ward with a sprinkling of fever cases.

The arguments which I have now endeavoured to adduce in favour of the plan of isolating cases of infectious disease, refer mainly to typhus, which is certainly far from being the most infectious of the class of the diseases, the proper mode of dealing with which is under dispute.

But if my remarks apply to typhus, what are we to say respecting small-pox and scarlet fever, both of which certain theorists on sanitary matters would also have us treat in the wards of general Hospitals? Small-pox is happily at present excluded from the wards of most general Hospitals by the almost unanimous voice of Professional and public opinion; but scarlet fever, whose poison is scarcely, if at all, less active, is not so. There are few Professional men who will accept the dictum, that the poison of scarlet fever is a myth. Too many of them have reasons for a contrary belief, founded on bitter experience in their own families. Let the ventilation of a Hospital be as perfect as it is possible to make it, small-pox and scarlet fever will spread in it among persons not protected.

Medical students ought unquestionably to have the means of studying all infectious diseases, even small-pox, at our general Hospitals; but the patients suffering from these diseases ought not to be treated in the same wards with the ordinary patients. Wards ought to be provided for them, either in a separate building, or having a means of access not through the main building. Moreover, separate wards ought to be provided for small-pox, scarlet fever, and typhus; for experience has shown that patients suffering from, or convalescent from, any of these diseases, are liable to contract the others. I ask, Sir, is it charity, or is it not rather a barbarous practice, to admit a patient suffering from some trifling disease, such as indigestion or rheumatism, into the wards of a Hospital, and to make him, or his friends who visit him, run the risk of contracting typhus or scarlet fever, and perhaps dying of these diseases; and is it right that those charitable members of the community who visit the sick, to minister comfort and consolation, should unknowingly run a similar risk? Yet, these are risks almost daily incurred, and too often with the disastrous effects detailed in this letter. It seems to me, indeed, extraordinary that a practice open to such grave objections should find advocates in the middle of this nineteenth century.

I am, &c. CHARLES MURCHISON, M.D.,
Physician to the London Fever Hospital.

79, Wimpole-street, W., February 15.

MISS NIGHTINGALE ON HOSPITALS.

LETTER FROM DR. J. S. BRISTOWE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Dr. Farr, in his letter, contained in your last week's number, enumerates, among Miss Nightingale's merits, that "she probes all the defects which make Hospitals ways of death to their inmates. She collects plans; she consults engineers; and she brings the whole of the facts together in a clear, practical form, and *holds out hopes that general Hospitals may yet benefit mankind directly, and not merely as pathological observatories and Medical schools.*"

The words which I have put in italics do not so much state, as they do insinuate, a very grave charge indeed against existing Hospitals. Such a charge, brought even indirectly by a man in Dr. Farr's position, is a very serious matter, and demands, in the interest both of the Profession and of the public, the fullest investigation. Of course, Dr. Farr has in his possession the facts on which it is based, and is prepared to make them public. I am, &c.,

J. S. BRISTOWE.

2, Queen-square, Westminster, Feb. 17.

[To the Editor of the Medical Times and Gazette.]

SIR,—Dr. Farr's confused and violent letter is so fully answered by your clear and temperate remarks, that I need interfere no further than to assure you of my hearty concurrence in them.

In the absence of anything to the contrary, I conclude that gentleman to be of opinion that a fair percentage of mortality can be struck between patients in Hospital on a single given day, and the deaths for a whole year. He is, of course, at liberty to amuse himself by this or any other arithmetical flights of fancy; but he must not complain if I, in common with most Hospital officers, look upon it as a gross misuse of figures, and utterly disbelieve any conclusions resting on it.

As I have not the honour of knowing "Anonyma," who unexpectedly turns up in Dr. Farr's queer composition, I may be excused in asking what possible connexion there can be between her and "Notes on Hospitals," and how on earth she came to be mixed up with Yours, &c.

THE REVIEWER OF "NOTES ON HOSPITALS."

THE NEW COUNTY HOSPITAL AT WINCHESTER.

[To the Editor of the Medical Times and Gazette.]

SIR,—Permit me to call your attention to what is now being done at Winchester. The old county Hospital having been very reasonably judged to be behind the requirements of the age, a new one is to be put up. The plans for the new building have been concocted by the following personages:—1. Miss Nightingale. 2. An architect named Butterfield, only known to me as a defacer of fine old churches, and a builder of ugly new ones. 3. A domineering baronet of the neighbourhood, who has put a ring in the nose of the Hampshire hog, and leads him about as he will.

It is interesting to remark that the proposed building is to stand on the top of a bleak hill: that it has five stories, including the basement; that it consists of one block only, the long axis of which lies east and west; and that every ward has a row of large windows facing the north. You will be able to judge how far these peculiarities agree with Miss Nightingale's published opinions. It is true that the architect has never built a Hospital before, and probable that he never saw the inside of one until he began this work. But surely any slight defect in the sanitary arrangements of the place will be amply atoned for by the strictly ecclesiastical character of the design, the impressiveness of the roofs, and the traceried window of the operating room. The penitential tone, too, given to the venereal wards, the windows of which are provided with blinkers, is very pleasing. A charmingly conventual effect is also obtained by putting the nurses to sleep in a room, fitted with little horse-boxes like a stable. No doubt the same beautiful feeling will be preserved in all

the fittings of the establishment, down to the humblest of its utensils.

The streaky-bacon style in which the building is designed is of course intended as a delicate compliment to the subscribers.

As the success or failure of the project is a matter of perfect indifference to any one but those immediately concerned in it, others may be content to draw amusement and instruction from the vagaries of these amateur Hospital builders. As one of these careless ones I beg to sign myself

I am, &c. EPICURI DE GREGE PORCUS.

DIGITALIS IN CARDIAC DISEASE.

LETTER FROM DR. JOHN C. THOROWGOOD.

[To the Editor of the Medical Times and Gazette.]

SIR,—I read with much interest your "Hospital Notes" on the "Action of Digitalis in Cardiac Disease;" and, as I have found this remedy a very useful one in a certain class of cases, I have thought it right to send you, in brief form, a few notes on the subject, especially as they will, I believe, bear out the correctness of the opinions of those able Physicians whose names and observations are recorded in your paper.

Some years ago I saw a poor woman who had been brought very low by uterine hæmorrhage. Palpitation of the heart, to which she had been always very subject, was now very distressing; she complained much of faintness and giddiness; there was œdema of the extremities, with some amount of ascites; the urine was scanty, and not albuminous. She had, moreover, a cough, and frequent attacks of watery diarrhœa; face pale and puffed. For ten days or so this patient got tinct. ferri, with opiates; then tr. scillæ, with nitric ether. A temporary and slight improvement resulted, but I see, by the notes now before me, that soon the dropsy and other symptoms returned as badly as ever, and the faintness and prostration were most distressing. The cardiac impulse was quick over an extensive space, and the first sound weak; murmur was doubtful. At this juncture the patient got tinct. digitalis, ♏x., ter. die., ex mist. camphor; and this acted moderately as a diuretic, removing all the dropsy and other bad symptoms; so that, in six months' time, I saw her up and about her work as well as ever she was in her life.

In this case there was dropsy, to a pretty large extent, dependent on a weak and somewhat dilated heart,—just that form of dropsy which Dr. Withering, in the year 1785, said was so soon cured by digitalis.

In July, 1862, I had an opportunity of seeing the beneficial effect of digitalis, prescribed by Dr. Gull for a gentleman in the country who had been long ill with dropsy, mitral regurgitant disease, and renal degeneration. He was growing rapidly worse till he got pulv. digitalis, pulv. scillæ, āā gr. j.; con. rosæ, q. s., ft. pil. bis die. A dozen of these pills materially improved the state of things; and then it was that Dr. Gull drew my attention to the great value of digitalis in mitral disease, and the danger of employing it in aortic disease.

Last August I was attending a case of severe cardiac disease from organic change in the aortic valves: mindful of the point to which my attention had so lately been drawn, I tried every medicine that held out hope of relief—digitalis alone excepted. The patient, a woman somewhat advanced in life, got no real and permanent benefit, and Dr. Peacock was good enough to see her with me. He confirmed my evil prognosis, and, on my mentioning digitalis, told me, as I expected, that it was no remedy for such a case as the present, and we gave tinct. ferri, with tr. hyoscy. and chloric æther.

The patient lingered on for weeks; there was no dropsy, but the attacks of dyspnœa were most severe and alarming, and gradually a faint mitral murmur became audible. It now struck me that, perhaps, digitalis might relieve this dyspnœa, and with some misgivings I tried the tincture in five-drop doses three times in the day. I went in at night to see how the patient was, and was amazed to find that even this small dose had made her more faint and worse generally, so that she detected that some change had been made in the medicine. I was satisfied, and gave her no more digitalis; eventually she sank and died.

It seems that Withering, in his memoir on "Digitalis," published in 1785, describes as cases of dropsy likely to be relieved by digitalis just such cases as we now know to be dependent on dilated heart with probably mitral disease also.

Sir H. Holland, in his "Medical Notes and Reflections," tells how that in his experience digitalis suits best the enlarged and flaccid heart, though at first sight it might seem otherwise; and the experience of good practical Physicians of these days evidently confirms these observations.

I may just add, in conclusion, that it has seemed to me, that when digitalis is not likely to suit the system, it quickly causes disturbance of the stomach. I have never seen any serious symptoms caused by its administration, nor anything approaching to a manifestation of its so-called cumulative effect. I am, &c.

JOHN C. THOROWGOOD, M.D., M.R.C.P. Lond.,
Assistant-Physician City of London Hospital for Diseases of the Chest.

Finsbury-circus, January.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 9.

Mr. PARTRIDGE, President.

GEORGE WILLIAM CALLENDER, Esq., gave

SOME ACCOUNT OF THE AMPUTATIONS PERFORMED AT ST. BARTHOLOMEW'S HOSPITAL FROM THE 1ST OF JANUARY, 1853, TO THE 1ST OF OCTOBER, 1863.

These amputations are so arranged in a series of tables as to show, for a number of consecutive years, the totals of deaths and of recoveries in male and female patients. The operations comprise all the principal amputations, arranged as primary and secondary, and as amputations for disease. After some general remarks, certain deductions from the several tables are detailed. Of 93 primary amputations, 78 recovered, and 15 died; thus 16·1 per cent. of all these amputations prove fatal, or 1 in 6·2; and if the age of the fatal cases, which averages 47 years, be taken into consideration, it appears, for children and for adults under 40, that an unfavourable result after these amputations is an exceptional occurrence. The secondary amputations number 37, and of these 24 recovered and 13 died; so that 35·1 per cent., or 1 in 2·8 of all these operations, prove fatal. Taking primary and secondary amputations together, 7·1 per cent. of those of the upper extremity, and 32·4 of those of the lower extremity, prove fatal; and 21·5 per cent., 1 in 46, of the total of traumatic amputations. There are 228 amputations for disease or for malformations: 182 recovered, and 46 died, or 20·1 per cent. Of those performed at the upper extremity, 18·5 per cent. died; whilst of those which involved the lower, 20·3 per cent. ended fatally. It follows that, of the total 358 amputations, the ratio of mortality are: after all primary amputations, 16·1 per cent.; after all secondary, 35·1; after all amputations for disease, 20·1; after all amputations at the upper extremity, 10·8; after all those at the lower, 23·6; and after all amputations, 20·6 per cent. *Causes of Death.*—Old people are little able to resist the shock of the more severe amputations, the influence of age being most marked with primary operations. Females do not rally so easily as males after the severe shocks which precede and accompany primary amputations, nor after the depression consequent upon amputation at the thigh. The rate of mortality on the totals of cases is 18·9 per cent. for males, and 21·6 per cent. for females. The totals of deaths and of recoveries, as influenced by the age and sex of the patients, are shown in a separate table. After primary amputations, traumatic complications prove fatal at the rate of 40 per cent., and exhaustion at the rate of 20 per cent. of the total number of deaths. After secondary amputations, exhaustion is the chief cause of death, 38·4 per cent. sinking in this way; 23 per cent. die from secondary hæmorrhage. Of the total of traumatic amputations ending fatally, 28·5 per cent. sink from exhaustion, 25 per cent. from traumatic complications, 21·4 per cent. from hæmorrhage, and 7·1 per cent. from pyæmia. After amputations for disease ending fatally, exhaustion is the cause of death in 28·2 per cent.; pyæmia in 39·1 per cent.; and visceral complications in 15·2 per cent. Taking the four chief causes of death after all amputations, we obtain the following rates of mortality in the totals of fatal cases:—

Amputations.	Hæmorrhage. Per cent.	Pyæmia. Per cent.	Exhaustion. Per cent.	Visceral Complication. Per cent.
Primary .	20·0	—	20·0	6·6
Secondary .	23·0	15·3	38·4	15·3
All traumatic	21·4	7·1	28·5	10·7
For disease .	4·3	39·1	28·2	15·2

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Of the total 74 fatal cases, 24·3 per cent. die from exhaustion, 27 per cent. from pyæmia, 12·1 per cent. from hæmorrhage, 16·1 per cent. from visceral complications. After giving the particulars of the cause of death in each fatal case, and the injury or the disease for which the operation was performed, the days in which 74 cases terminated fatally are shown in a tabular form. From this it appears that deaths from shock, or from other injuries, or from both combined, take place within the first twenty-four hours, and within forty-eight hours the deaths from recurrent hæmorrhage occur. Exhaustion is most fatal about the fourth day; secondary hæmorrhage is a cause of death from the fifth to the twelfth day; pyæmia from the seventh to the twenty-fourth. Three cases of amputation are referred to, in which death was not accelerated by the operation, the patients dying on the 109th, the 102nd, and 93rd day respectively; and the paper concludes with an account of certain cases, and of certain sequences of fatal cases and recoveries, showing how necessary it is to mass together a considerable number of consecutive operations before we have a chance of arriving at tolerably just conclusions.

Mr. Bryant, after remarking on the value of Mr. Callender's paper, said that he was surprised to find some startling difference in the results he had obtained, and in those he (Mr. Bryant) had deduced from a similar kind of analysis of the cases at Guy's Hospital. As regards numbers, his and Mr. Callender's statistics were pretty much alike, but the rate of mortality was very different—in the former 20 per cent., in the latter 25; when, for injuries, the difference was greater still, the mortality at Guy's being nearly double. In amputation for disease, however, it was the reverse. Mr. Bryant asked if it were possible that a difference of practice at the two Hospitals could reconcile these differences? At Guy's, conservative Surgery was carried to an extreme degree, and possibly too far. Then, perhaps, at St. Bartholomew's the practice might run a little towards the other extreme. He spoke, however, on this subject with great diffidence. Mr. Bryant then alluded to the very marked difference in the mortality after amputation of the upper extremity, in his and in Mr. Callender's series. Mr. Bryant then asked for the simple results as regards amputation of the thigh for disease of the knee-joint, as he wished to compare the mortality of this operation and that of excision of the knee-joint. The mortality of the latter was about one in five; whilst at Guy's and St. George's that of amputation of the thigh was one in eight.

Mr. Solly suggested that, as regards the discrepancy in the gross results of amputation for traumatic injuries, the difference in severity of the injuries should be taken into account. At the Borough Hospitals there were many severe railway accidents.

Mr. Spencer Wells said that the Surgeons of St. Bartholomew's and Guy's Hospitals might very justly cite the facts brought before the Society by Mr. Callender and Mr. Bryant, to prove that the mortality after amputations was very much less in these London Hospitals than in the large Hospitals of Paris and other continental cities. There the mortality ranged from 40 to 60 per cent., while here it was 20 to 25 per cent. The Surgeons of our Hospitals might regard this comparison with great satisfaction, but it might still be true that the mortality here was excessive. He (Mr. Wells) believed that it was excessive, and that it ought to be and would be reduced. A mortality of one in four or five after amputations, including those of the fore-arm and leg, must be very much larger than it would be if Hospital patients were placed more nearly in the condition of those who were operated on in private houses. It might be difficult or impossible to prove this by statistics, because any conclusions drawn from the few cases of amputation which any one Surgeon could bring forward from his experience in naval, or military, or private practice, would be met by some such curious facts as those just adduced by Mr. Callender. If he (Mr. Wells), or any one else, were to say, that of ten, or twenty, or thirty amputations, not one had died within six months after operation, the answer would be, that such a result was as purely accidental as the fact that all the women who underwent amputation in St. Bartholomew's in one year died, and all in the next year recovered; and it would not be easy to reply to this argument, however firmly a Surgeon might be convinced that his success was due to the care which he bestowed upon his patients, and that many of the causes of the excessive mortality in Hospital practice might be avoided. A private patient clearly escaped any contagious influence from other patients in the same ward, and arrangements might perhaps be made to give greater protection against contagion to Hospital patients. First year's students, acting as dressers and dissecting on the same day, might explain a portion of the avoidable mortality in Hospitals from erysipelas and pyæmia. By attention to such matters as these, and by careful study of all those minor details in the mode of operating and in after treatment, which, though apparently trivial, might assist in turning the scale one way or the other, it was well known that some important operations had been performed much more successfully in small than in large Hospitals; and it was to be expected that similar care would also lead to greater success in all operations. The different sanitary condition of the Hospitals of London and Paris was accompanied by a death-rate of 20 to 25 per cent. in one city, and 40 to 50 per cent. in the other. A great deal had been gained already, but a great deal more might be done; and when it is done, he (Mr. Wells) felt certain that the mortality after amputations would fall very far indeed below the present proportion of 20 per cent.

The Author said that the great discrepancy Mr. Bryant had alluded to, was accounted for by the difference in the ages of the patients in his own and in Mr. Bryant's series. Many of the traumatic cases were lads from printing offices in the neighbourhood, and the injuries were less severe than those from railway accidents. Then as regards the great mortality after amputation of the upper extremity, several of the cases were exceptional. Two died of erysipelas, and two were at death's door when the operation was done. He had not made an analysis as to the mortality from amputation above the knee, but would add a note on this point to his paper. In reference to the remarks by Mr. Spencer Wells, he said that, at St. Bartholomew's, great pains had been taken to improve the condition of the wards; and, moreover, a Surgical registrar had been appointed, not merely to take notes of the cases of individual patients, but to watch the general health of the patients in the wards, to report upon any epidemics that might appear, and generally to supervise the hygienic arrangements, under the direction of the Surgical staff.

In reply to the President, the Author said that the gentleman appointed was not a student. He had been House-Surgeon, and was highly qualified for the registrarship.

The President thought that, from the want of such registration, a vast amount of Medical and Surgical scientific material was utterly wasted. He should have thought, speaking in reference to Mr. Spencer Wells' suggestion, that dressers were not appointed from first year's students.

The Author said they were not at St. Bartholomew's.

Mr. Spencer Wells said that second and third years' students dissected as well as the first, and he had not heard of any restriction upon dressing by students who were dissecting.

Mr. J. W. Hulke read a

MEMORANDUM OF A CASE OF STRANGULATED FEMORAL HERNIA WHERE, ON A FORMER OCCASION, THE NECK HAD BEEN TORN FROM THE BODY OF THE SAC IN THE TAXIS, AND THE EXTRUDING BOWEL HAD FORMED A LARGE POUCH OUTSIDE THE PERITONEUM.

A woman, aged 70, was admitted into the Middlesex Hospital on October 12, 1863, with a strangulated femoral hernia of moderate size. The strangulation was relieved by herniotomy, but the bowel could not be fairly put back into the belly. Death occurred about seventeen hours after the operation. At the post-mortem examination, the body of the sac was found *in situ*. The femoral ring opened into a large sub-peritoneal pouch, which contained eight feet of gut, and communicated by a round aperture, the original neck of the sac, with the peritoneal cavity.

The late Captain Phelps.—Captain Phelps, of the 2nd Battalion of the 14th Regiment, who was mortally wounded in the late action in New Zealand, entered the army originally as a Medical officer. Before relinquishing the Medical for the combatant branch of the service, he served as an Assistant-Surgeon in the Crimea. The following notice of this gentleman appeared in the New Zealand correspondence of the *Times* of February 12:—"Captain Phelps, an officer and a gentleman of whom New South Wales—his native country—may well feel proud, was hit in the abdomen, the bullet being supposed to have lodged in the kidneys. Having entered the army as a Medical officer—in which capacity he greatly distinguished himself in the Crimea—he at once pronounced his wound to be fatal. We write of him not only as an officer, a gentleman, and an artist of conspicuous merit, but as an estimable acquaintance whom it was our privilege to call friend."

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LEGAL INTELLIGENCE.

ROLLS' COURT, Chancery-lane, Feb. 11.

(*Before the* Master of the Rolls.)

THE ATTORNEY-GENERAL *v.* WALLACE.—JUDGMENT.

His Honour gave judgment in this case, which involved a question of the topographical extent of "London," under the following circumstances:—Lord Henry Seymour, by his will, dated in 1858, gave the residue of his personal property to be divided between "the Hospitals of Paris and London," and the Court was called upon to fix, as far as "London" was concerned, the limits of such a bequest. On the present occasion, the Hospitals of four districts, or limits, so to speak, put in their claims, on behalf of which it was contended—first, that the gift was confined to the Hospitals of the "city" of London; secondly, that it extended to all the Hospitals within the limits of the old bills of mortality; thirdly, that it included only the Hospitals of the metropolitan boroughs; and lastly, that it meant the Hospitals within the limits of the Registrar-General's report. The Court considered all these suggested limits or districts open to great objection. It was quite evident, from the context of the testator's will, that he did not mean "London" in its restricted sense, as embracing the city of London only; but that he used the words in its ordinary or popular sense, which meant not only the city of London, but Westminster, Southwark, etc. None of the other limits suggested would meet the difficulty any more than that of the city of London, inasmuch as in all of such limitations, if adopted, many populous districts would be altogether excluded, and many sparsely-populated districts, such as Plumstead-common, for instance, would be embraced. Then it had been suggested that the limits of the bequest might be taken to include London and Westminster, or the grounds covered by the metropolitan postal districts. But here, again, the first definition would be too limited; the latter too large. The best way of construing the gift would be to hold it as not being confined to any particular metropolitan limits, but to apply it to each particular case or claim as it might arrive. The word "London" was a fluctuating term; and in the present instance the London Hospitals, or Hospitals of London, must be taken to mean the Hospitals existing in London in its widest sense in the year 1858, when the testator's will was made. Sir William Petty had spoken of "London" in the year 1686 as meaning not only the heart or city of London, but as London and its continuous streets and districts "within call." This must be the construction put upon the word as used in the testator's will; and "London" must be taken to mean not only the cities of London and Westminster and the boroughs of Southwark, etc., but all of these districts and their continuous streets. For instance, the Consumption Hospital at Brompton must be included as in the bequest. Acting on the principle thus laid down, the Court would deal with each case separately as it arose; and where any doubts existed in respect to any claim put forth, the merits of such claim would be dealt with and sifted in chambers.

COURT OF QUEEN'S BENCH, Feb. 13.

(*Sittings in Banco before Mr. Justice* Crompton, *Mr. Justice* Blackburn, *and Mr. Justice* Mellor.)

BECK *v.* FAREY.

This was one of two actions brought by Dr. T. Snow Beck against two persons, one named Sterne and the other Farey, to recover fees for attendances upon their families some years ago. Both actions were tried at the last Surrey assizes, one (the present case) before Mr. Baron Channell and a common jury, the other before Mr. Baron Bramwell and a special jury. The present case was tried first, and resulted in a verdict for the plaintiff; the other case was then tried, and resulted in a verdict for the defendant. In the latter case the learned judge was satisfied with the verdict, and the Court refused to disturb it. In the present case, in which the plaintiff got a verdict, the learned judge declared himself decidedly dissatisfied with the verdict, and the Court had granted a rule to set it aside.

Mr. Serjeant Petersdorff (with him Mr. Griffiths) appeared in support of the rule; Mr. Serjeant Parry appeared to show cause on the part of the plaintiff, and to support the verdict; but

The Court, finding the opinion of the learned judge who tried the case so decidedly against it, made the rule absolute to set it aside, without hearing the learned counsel for the defendant.

MEDICAL NEWS.

Royal College of Physicians of London.—At a general meeting of the Fellows, held on Monday, February 15, 1864, the following gentleman, having undergone the necessary Examination, was duly admitted a Member of the College:—

Scholes Butler Birch, M.D. St. Andrews, Gore-lodge, Upper Kensington Gore.

At the same meeting, the following gentlemen, having undergone the necessary Examination, and satisfied the College of their proficiency in the Science and Practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College:—

William Gill, Truro, Cornwall; Henry Biretzcke, Deptford; Arthur George Mickley, Buntingford; Cosby William Morgan, Newcastle, New South Wales; Henry Hitchcock Parry, Allington, Devizes; Kenrick Henry Bold Williams, Llansaintffraid, Conway; George Frederick Thomas, Taranaki, New Zealand; Charles Cameron, H.M. Bengal Army; Duncan Maclachlan Maclure, 16, Harley-street.

The following gentlemen were reported by the Examiners to have passed the First Part of their Professional Examination:—

George William Rigden, University College; Samuel Freeman Bagnall, King's College; Thomas Collier, Guy's Hospital; Frederick John Burge, King's College; William Bell, King's College; Benjamin Lamb Powne, St. Bartholomew's Hospital.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, February 11, 1864:—

William Burt Shorto, Charing-cross Hospital; Henry Osborn Fawcet Butcher, Ware, Herts; Jabez Bunting Jackson, Leicester.

The following gentleman, also on the same day, passed his First Examination:—

Frederick John Burge, King's College Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Booth, Charles, M.D. Edin., has been elected Surgeon to the Chesterfield and North Derbyshire Hospital and Dispensary.

Candlish, Henry, M.D. Glasg., has been elected Surgeon to the Alnwick Infirmary.

Dixon, John, M.D. St. And., has been elected Surgeon to the Surrey Dispensary, Great Dover-street, S.E.

Easton, George F., M.D. Edin., has been appointed Physician to the Alnwick Infirmary.

Jacob, Arthur, M.D. Edin., has been elected Vice-President of the Royal College of Surgeons of Ireland.

Jepson, Octavius, M.D. St. And., has been appointed Medical Superintendent of the City of London Lunatic Asylum, in course of erection at Stone, near Dartford, Kent.

Leishman, William, M.D. Glasg., has been elected Locturer on Clinical Medicine, and one of the Ordinary Physicians to the Royal Infirmary, Glasgow.

Moore, H. G., L.R.C.P. Lond, has been appointed House-Surgeon and Secretary to the East Suffolk Hospital, Ipswich.

Renfrew, Robert, M.D. Glasg., has been appointed Surgeon to the Police and Assistant Medical Officer of Health, Northern District of the City of Glasgow.

Ringer, Sydney, M.B. Lond., has been appointed Assistant-Physician to the Hospital for Sick Children, Great Ormond-street, W.C.

Robertson, Robert, M.D., has been appointed Assistant House-Surgeon to the Liverpool North Dispensary.

Watson, J., M.D., has been elected Resident Medical Officer to the Chorlton Union Workhouse, Withington, Lancashire.

DEATHS.

Brierley, John, M.R.C.S. Eng., at Davenport-house, Stalybridge, Cheshire, on January 7, aged 55.

Bull, Joshua, M.D. Edin., at Cittadella, Cork, on January 30.

Gardner, C., M.D., at Toronto, Canada West, on December 27, aged 40.

Jones, John, M.R.C.S. Eng., at 5, Seymour-place, Wandsworth-road, on February 10.

Jones, W. Vaughan, M.R.C.S. Eng., at Festiniog, Merionethshire, on February 3, aged 41.

Lawson, Joseph A., M.D. Edin., at Horbury-crescent, Notting-hill, W., on February 11, aged 57, Deputy-Inspector-General of Hospitals.

Muston, Edward, late Surgeon in the Bengal H.E.I.C.S., at Bordeaux, on January 5, aged 76.

Partridge, William S., L.S.A., at High-street, Bordesley, Birmingham, on February 6, aged 44.

Ross, Andrew, M.D., at 10, Pembridge-crescent, Bayswater, on Feb. 12, late of the H.E.I.C. Service.

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ALLOWANCE OF FORAGE TO ARMY MEDICAL OFFICERS.—By a Warrant lately issued from the War Office, all Medical officers above the rank of Assistant-Surgeon will be henceforth entitled to horse forage, or an equivalent allowance, according to relative rank. An Assistant-Surgeon will be allowed forage for a horse if his duty oblige him to keep one. This is a restoration of one of the clauses of the Medical Warrant of 1858.

THE PROPOSED SPANISH MEDICAL CONGRESS.—The period for the assembling of this congress at Madrid is fixed for September 24 next. It will be held during six days, the two first being devoted to verbal or written communications, and the others to discussions. Foreigners must speak either in Spanish or French. A written communication must not occupy more than twenty minutes in duration, and a verbal one half that time. In the discussion, the speakers are to be allowed a quarter of an hour, and must only address the congress once upon the same subject. The following are the questions proposed for discussion:—1. The importance of quarantine and lazarettos. 2. The value of Surgery in the treatment of cancer. 3. The causes of pulmonary consumption, and the means of preventing or diminishing its ravages. 4. The criterium of moral liberty in the perpetration of crime. Any one possessed of a diploma in Medicine or Surgery or the accessory sciences may take part in the congress on the subscription of 60 reals (12s. 6d.), for which a copy of the proceedings will be furnished. All communications upon the subject are to be addressed, post free, to Dr. De Lugue, 8, Calle Atochia, Madrid.

THE ARMY MEDICAL DEPARTMENT.—List of the candidates who were successful at the competitive examination in August last, and who have passed through a course at the Army Medical School:—

Names.	Studied at	Number of marks.
R. W. Troup	Aberdeen	5210
W. R. Kynsey	Dublin	5100
R. W. Lawless	Dublin	4946
J. F. Beattie	Aberdeen	4572
R. B. Cunynghame	Edinburgh	4492
A. Thomson	Aberdeen	4192
A. Turner	Aberdeen	4015
A. F. Preston	Dublin	3926
R. W. Forsageth	Dublin	3776
J. Delmege	Dublin	3756
C. McD. Cuffe	Dublin	3743
S. S. Gouldsbury	Galway	3729
J. A. Shaw	Dublin	3710
Charles Haines	Cork	3707
F. Dick	Edinburgh	3693
H. C. Collier	Edinburgh	3622
J. E. Barker	Dublin	3619
J. R. Greenhill	London	3572
H. R. Greene	Dublin	3511
R. H. Bolton	Dublin	3315
Henry Morris	London	3289
P. P. Lyons	Dublin	3259
E. H. Condon	Dublin	3251
James Barker	Dublin	3224
James Barry	Cork	3100
C. A. Atkins	London	3092
W. P. Smith	Dublin	3052
George Fearon	Dublin	3032
C. J. Weir	Dublin	3029
Francis Howard	Dublin	2989
Frederick T. Byrne	Dublin	2983
William Elger	Dublin	2784
Thomas White	Dublin	2573

THE BURNING OF QUEEN'S COLLEGE, CORK.—The Report of the President of the Queen's College, Cork, contains some extraordinary statements and correspondence respecting the burning of the College. It appears that one of the Professors in the Medical Faculty has charged the President, Sir R. Kane, with having set fire to the College. The Dublin correspondent of the *Times* writes that—"On June 5 last, Mr. Pope Hennessy stated in the House of Commons, on the authority of a Professor of Queen's College, Cork, that the building was set fire to by one of the officers of that institution. Sir Robert Kane wrote four times to the hon. gentleman, demanding the name of the Professor who made the statement. That gentleman, however, refused to allow his name to be mentioned, but at length he agreed that a copy of his letter might be privately communicated to Sir Robert Kane. He had in the meantime made depositions upon the subject of the fire to the Irish Government. The authority in question was Dr. Dennis Bullen, Professor of Surgery. On July 2, Sir Robert Kane wrote to Major-General Sir Thomas Larcom, Under-Secretary, stating that great injury had been caused to the character of the officers of the College and of the Government by the persistent circulation and repetition of Dr. Bullen's statement. The Government was accused of screening the incendiary from justice, and of attempting to defraud the citizens of Cork of £7000 by seeking to recover that sum from the city, while suppressing the information they had received from Dr. Bullen; the officials of the College of all classes, from the President down to the humblest porter, being placed under vague but most injurious imputations. Sir Robert Kane, therefore, urgently requested to be furnished with a copy for publication of all the documents that Dr. Bullen had sent to the Government on the subject. This request was refused as inconsistent with official usage. About a fortnight after, however, Sir Thomas Larcom was directed to transmit to Sir Robert Kane, then in Switzerland, a copy of an extraordinary document received from Dr. Bullen, containing the gravest charges against the President of the College." These charges were contained in what purported to be memoranda of conversations held between Sir Robert Kane and Dr. Bullen. The former denies that such conversations ever took place. "The documents were all laid before the Council of the Cork College by Dr. Bullen, at the request of the President. The Council declined to take any action upon them. They simply resolved that they be handed to the President without investigating their contents, as they had already been under the consideration of the Government. The President then sent them back to Dublin Castle. There, on October 13, the Lords Justices directed the Under-Secretary to state that—'Their Excellencies, having referred to your explicit denial of their contents in your letter of July 27 last, so far as they purported to detail the particulars of private conversations between you and Dr. Bullen, are of opinion that no further consideration on the part of the Government would lead to a solution of the difficulties raised by statements so conflicting; nor are their Excellencies aware of any course of inquiry which could be instituted by them with the probability of a satisfactory result.' Sir Robert Kane then asked and obtained the documents, in order that he might use them as circumstances should require, and in the concluding paragraph of his report he submits them to the judgment of the Queen in the following terms:—'From the above statement and the appended documents a judgment can be formed as to the validity of the grounds upon which Dr. Bullen has thought proper to prefer such charges against the officers of the College and against me. I am quite satisfied to leave to the wisdom of your Majesty, and to the impartial opinion of the public, the decision as to his conduct, and the notice which it may be considered to deserve.' A difficult task is thus imposed;—first, Sir Robert Kane charges Dr. Bullen with making false statements in his sworn depositions; secondly, Dr. Bullen says:—'It is my conviction there is no evidence whatever to connect the crime with any person or party outside the College, and the conduct of Sir R. Kane with reference thereto demands inquiry.'"

ETHNOLOGICAL SOCIETY.—At a meeting on February 9—J. Crawfurd, Esq., F.R.S., Vice-President, in the chair—Mr. A. Oldfield read a paper "On the Ethnology of Australia." The author considered the New Hollanders to be mainly of Malay descent, which people he supposes colonised the northern shores of Australia, and thence their descendants have spread eastward over the continent, following, to a great extent, the lines marking the distribution of edible plants. The familiar customs of the various tribes evince a community of origin; but as the migrations have rarely been directly south, the migratory bands have crossed each other's lines, leaving their traces at the points of transit. It is estimated that, at the time of its settlement, the island of Tasmania contained a native population of 4000, consisting of four distinct tribes, each possessing a peculiar language, and diverse customs. Of this number not half a dozen survive, and in a few years the Tasmanian race will become extinct, there being no females capable of child-bearing among them. Although this proximate disappearance of the Alfouras is to be deplored, still, as it is not to be avoided by any means, it would be useless to waste time and labour in the hopeless task of endeavouring to avert the fate impending over them: the utmost that can be done is to make some effort to mitigate the rigors of the lot of those whose territories remain yet to be invaded. This hope-

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lessness of averting the extinction of the native races arises from their utter inaptitude to receive, or, if they receive, to retain any amount of education; hence change in their mode of existence is impossible. The experiment has been made repeatedly; and although some proficiency has been attained in those branches of learning which depend altogether on the memory, all efforts to educate the reason have signally failed; even the effects of this lowest kind of education are soon effaced when once they are removed from the schools. The author has met with several adult natives who, in their youth, had acquired the arts of reading and writing, and though but a few years had elapsed since they had quitted their instructors, all traces of such powers had entirely disappeared. The education of their morals is as impossible as is that of their reason, the old savage nature eventually breaking forth even in individuals in whom it was imagined to have been totally subdued. The following instances, out of very many similar ones which have come under the author's observation, will serve to show how futile is the attempt to raise these people in the social scale. Many years ago, a settler in Western Australia received into his family an aboriginal child aged only a few days, the mother having been killed while it was of that tender age. The infant (a girl) was brought up with the children of her protector, and in after years received the same education as they did, in which she made great apparent progress, while at the same time she was most sedulously guarded from contact with any of her own race. As she grew up, she was esteemed a model of virtue, and great hopes were entertained that, through her, much might be done to ameliorate the condition of her people. At the proper age, and of her own free choice, she was given in marriage to an Englishman, and for some time all went on well. At length her savage instincts prevailed, and, casting off her civilised dress, she eloped with an aboriginal man, submitting to all the customs of savage life. Her husband followed the pair in hopes of reclaiming his wife, who, when he overtook them, incited her paramour to kill him. Even the half-caste breed evince much of this savage instinct. The author has seen a child of this class, who had never been in contact with any natives, greedily devour raw kangaroo-flesh, while, in other respects, she was remarkably dainty in her diet, preferring nicely-cooked made dishes to solid meat. This inclination was checked as much as possible; but if opportunity offered she was unable to withstand the temptation, even going the length of robbing the dogs of their half-gnawed, half-putrid bones when they had been fed on that meat. As was discovered by Dampier 200 years ago, so is it at the present day. The New Hollanders are incapable of anything like steady, persevering labour, the reward of which is in futurity. Short tasks, the reward of which is speedy, they will certainly perform; but the work done and the pay secured, it is not until again pressed by hunger that they willingly betake themselves to labour. Even when hired as permanent servants the settlers are never certain how long they will continue to work; for after becoming surfeited with the white man's food, their innate propensities resume their sway, and, doffing their civilised costume, they are constrained to lead for a time their former vagabond life. The President, J. Lubbock, Esq., F.R.S., communicated a notice of a stone celt found in the boulder-clay of the Island of Lewis. The new Fellows elected were—T. F. Wade, Esq., C.B., Secretary of H.M. Legation, Pekin; W. W. Shaw, Esq.; and A. M. Aitkin, Esq.

INSANE PRISONERS.—Sir George Grey's bill provides that the inquiry by two or more justices into the insanity of a prisoner is to be conducted by visiting justices, "if the prison is one to which visiting justices are appointed." Also, instead of the enactment, that the two justices are to inquire "with the aid of" two Medical men, this bill directs the two justices "to call to their assistance" two Medical men, thus making the justices responsible for the selection of the Medical men. The Medical men are to be persons registered under the Medical Registration Act. On receiving from the justices and the Medical men a certificate that a prisoner is insane, the Secretary of State "may, if he shall think fit," direct that the prisoner be removed to a lunatic asylum. In regard to the very important subject of the release of a prisoner who has been insane, the bill proposes that if two registered Medical men shall "duly certify" to the Secretary of State that the prisoner "is sane," the Secretary of State shall be "authorised" to direct that he be discharged out of custody if his sentence has expired by efflux of time.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Will "A Subscriber" authenticate his letter?

We shall be happy to receive Mr. F. A. Bulley's papers.

An Old Subscriber and a Union Officer of Twenty Years' Standing.—The first move in any such matter is to secure the services of some independent Member of Parliament, and to concert with him the terms of the proposed memorial, of course taking care not to ask what is not likely to be got. It is of no use to begin making such a claim in a manner which might seem unreasonable, and defeat itself. Can our correspondent tell us what the gross total of the entire charge on the Consolidated Fund will be?

A General Practitioner.—There can be little doubt that, were the amendments proposed by the Committee of the General Council of Medical Education and Registration to be carried into effect, the result would be to introduce the entire trade of chemists and druggists into the Medical Profession. This result seems inevitable when the new section (No. LVI.) is taken in connection with the change the Committee proposes to make in the preamble of the Act. The original preamble ran thus:—

"Whereas it is expedient that persons requiring Medical aid should be enabled to distinguish qualified from unqualified Practitioners: Be it therefore enacted," etc.

The following is the amendment:—

"Whereas it is expedient that persons requiring Medical aid should be enabled to distinguish qualified from unqualified Practitioners; and whereas it is, moreover, necessary, for the safety and protection of the public, towards securing *adequately educated Practitioners in the several departments of Medicine, Surgery, and Pharmacy:* Be it therefore enacted," etc.

Who will say that a chemist, licensed by the Apothecaries' Hall or the Pharmaceutical Society, and definitely recognised by the Medical Council, is not an adequately educated Practitioner in Pharmacy? And what distinction will the public draw between him and his next-door neighbour, the M.R.C.S. and L.S.A., who keeps an open Surgery?

Candler v. Peat.—We have been requested by the Honorary Secretary to the Peat Defence Fund to publish the following circular and subscription list. We need not add that the object of the movement should command the hearty co-operation of the Profession:—

"An action was brought against Mr. Thomas Peat, Surgeon, of Manningtree, Essex, before Mr. Justice Blackburn, in the Court of Queen's Bench, in December last, by James Candler, of Mistley, for ill-treatment of an injury to the ankle-joint, and after a careful trial, a verdict was given in favour of Mr. Peat, who, nevertheless, was put to great expense, and, by the bankruptcy of the plaintiff, is now left to pay from £150 to £160, the whole costs of the defence. A very general feeling arose among the Medical men of this district that they ought to show their sense of the injustice of the action by uniting to raise a sum sufficient to bear their friend, Mr. Peat, harmless of the costs of the trial.

"A meeting was held at the house of Dr. Bree on January 26th, and it was resolved, 'That a subscription be now entered into to defray the expenses incurred in the defence of Mr. Peat, in the action of Candler *v.* Peat; that the subscriptions in the first instance should not exceed £1 1s.; and that the case should be brought before the Medical public in the Journals.' A Committee was formed to carry out the above object. (Names below.)

"The Committee invite your co-operation in raising the above sum, and feel confident, from the evidence in the late trial, that they have only to make an appeal to secure your sympathy.

"They feel this to be a favourable opportunity for expressing their deep indignation that the members of the Medical Profession are so frequently subjected to groundless or vexatious prosecutions, and that the present state of the law leaves vindication of character, at a ruinous expense, often, as in this instance, their only alternative.

"They rejoice that in this case the testimony of the Surgeons examined on both sides in the trial agreed so fully.

"The Committee request your donation, which may sent to any of their number.

"Signed by the Committee,

"C. R. BREE, M.D., Treasurer, Colchester.
ALEX. WALLACE, M.D., Colchester.
R. S. NUNN, Colchester.
J. H. PARTRIDGE, Colchester.
C. P. MINGAYE, Dedham.
D. P. MORRIS, Secretary, Colchester.

"*Already Subscribed.*—Dr. Bree, Colchester, £1 1s.; Dr. Fraser, C.B., Colchester, £1 1s.; Dr. Williams, Colchester, £1 1s.; Dr. Wallace, Colchester, £1 1s.; Dr. Fitz Patrick, Colchester, £1 1s.; Mr. R. S. Nunn, Colchester, £1 1s.; Mr. Johnson, Colchester, £1 1s.; Mr. W. Worts, Colchester, £1 1s.; Mr. E. Worts, Colchester, £1 1s.; Mr. A. Partridge, Colchester, £1 1s.; Mr. J. H. Partridge, Colchester, £1 1s.; Mr. C. P. Mingaye, Dedham, £1 1s.; Mr. D. P. Morris, Colchester, £1 1s.; Mr. E. Waylen, Colchester, £1 1s.; Mr. W. Waylen, Colchester, £1 1s.; Dr. Maclean, Colchester, £1 1s.; Mr. R. Latten, St. Osyth, £1 1s.; Mr. B. White, Feering, £1 1s.; Dr. Bird, Chelmsford, £1 1s.; Mr. Brough, Colchester, £1 1s.; Mr. S. A. Philbrick, Colchester, £1 1s.; Mr. Meadowcroft, Great Bentley, £1 1s.; Mr. R. F. Symmons, Colchester, £1 1s.; Dr. Brown, Colchester, £1 1s.; Mr. Thomas Taylor, Bocking, £1 1s.; Mr. H. Green, Mersea, £1 1s.; Mr. E. Varenne, Kelvedon, £1 1s.; Mr. C. P. Mann, Boxford, £1 1s.; Mr. John Taylor, Earl's Colne, £1 1s.; Mr. W. Daniell, Nayland, £1 1s.; Mr. W. S. Ling, Brightlingsea, £1 1s.; Dr. Walker, Tolleshunt Darcey, £1 1s.; Mr. S. N. Squire, Wivenhoe, £1 1s.; Mr. H. Giles, Coggeshall, £1 1s.; Mr. T. E. Osmond, Thorp, £1 1s.; Mr. T. H. Fenn, Nayland, £1 1s.; Dr. May, Maldon, £1 1s.; Dr. Growse, Brentwood, £1 1s.; Mr. D. L. Manthorp, Thorp, £1 1s.; Mr. M. L. Manthorp, Thorp, £1 1s.; Mr. R. Growse, Bildeston, £1 1s.; Mr. F. Newham Bury St. Edmunds, £1 1s.; Mr. S.

Rodick, Halstead, £1 1s.; Mr. G. Bentley, Halstead, £1 1s.; Mr. T. G. Cocke, Chapple, £1 1s.; Mr. B. Evans, Brixton, £1 1s.; Dr. Durrant, Ipswich, £1 1s; John Page, Esq., Manningtree, £1 1s.; Mr. Rob. Martin, Ipswich, £1 1s.; Mr. W. E. Image, Bury St. Edmunds, £1 1s.; Mr. J. C. Quennell, Brentwood, £1 1s.; Dr. Gimson, Witham, £1 1s.; Mr. T. G. Gurdon, Boxford, £1 1s.; Mr. T. M. Tomkin, Witham, £1 1s.; Mr. W. B. Tomkin, Witham, £1 1s.; Mr. S. Thorpe, Sible Hedingham, £1 1s.; Mr. P. Havens, Wivenhoe, £1 1s.; Mr. G. C. Holmsted, Bocking, 10s. 6d.; Mr. J. Harrison, Bocking, 10s. 6d.; Mr. J. S. Harrison, Braintree, 10s. 6d.; Mr. Chas. Dixon, Braintree, 10s. 6d.; Mr. C. Spurgin, Stratford, 10s. 6d.; Mr. C. Goodwin, Copford, 10s. 6d.; Mr. G. H. Bore, Stanway, 10s. 6d.

"Colchester, February 16, 1864."

Colchester Medical Society.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—An extraordinary meeting of this Society was held on Tuesday, February 9, convened by a requisition "to take into consideration matters connected with the welfare of the Profession arising out of the trial of Candler *v.* Peat, and involving the interests and reputation of two of our members."

Mr. Peat brought a series of charges against Mr. Smith, of Manningtree, and evidence was heard in support of them; and I am directed to forward to you, and to request the publication of, the verdict of the Society thereupon.

"Resolved unanimously:—

"That the members of this Society have heard the charges of Mr. Peat against Mr. Smith, and the answers thereto.

"That they find Mr. Peat has so far proved his charges against Mr. Smith as to cause them to express with deep regret their opinion that Mr. Smith's conduct has been improper and unprofessional."

A copy of this resolution was to be sent to Mr. Smith, to Mr. Peat, to the *Lancet*, and to the *Medical Gazette*.

I am, &c. David P. Morris, Hon. Sec.

Colchester, February 16.

The following were the charges brought by Mr. Peat against Mr. Smith:

"*To the Members of the Colchester Medical Society.*

"I hereby allege against Mr. Smith that he has been guilty of grossly unprofessional conduct towards me, and I pray the voice of the Society in my favour in the matter.

"I allege that he has acted unprofessionally in the case of James Candler, of Mistley, a former patient of mine, who sustained an injury of the ankle-joint, the tibia being thrown forwards, and the fibula fractured at its lower end. This case became the subject of an action in the Court of Queen's Bench at Guildhall, in the sittings before Hilary term, and a verdict was given in my favour.

"I allege that this action was brought by Candler against me, after communication with Mr. Smith; that Mr. Smith told Candler it was a good case for an action, and repeated the same thing to another party or parties, adding, the man was certain of a verdict, and would get hundreds out of me, as I had been wrong in my treatment all the way through.

"That he sent a letter to Mr. Bryant, of Guy's Hospital, accusing me of having mistaken the accident, and treated the injury as a simple sprain.

"That he did these things to injure, annoy, and damage me in Professional character and pocket; and I again pray your voice in my behalf.

"Manningtree, January 19, 1864." "Thomas Peat.

Can a Physician Sue for His Fees?

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—It is not the first time by any means that your pages have been honourably distinguished among your contemporaries for maintaining the dignity of the Profession. Others, alas! can see nothing but £ s. d. in a question of "fees" and "advice gratis." The Profession is, to them, a trading vessel—nothing more; and so it founders on these rocks. All honour to the *Medical Times*, which can recognise the Professional merits of a question when they are being sacrificed by other Professional organs.

I refer to the criticism of two of your contemporaries upon your remarks on Gibbon *v.* Budd. So far from being in "error," you are entitled to the thanks of the whole Profession for the statement that the decision in that case lowered the status of a Physician; and I thank you also for your hint to the College upon the subject. That a Physician should, under circumstances of peculiar aggravation, have appeared as plaintiff in the county court, is explicable; but that the College of Physicians should sanction this procedure, even by an act of omission, and those who affect to be directors of Professional conduct—the Medical press—should be silent, or speaking, should give such an uncertain, nay, derogatory sound, is significant of a widespread degeneracy. Would that the College had read the fable of the man and the goose with the golden eggs ere it passed this, and perhaps other of its recent bye-laws. Would that this protest might find favour with a certain editor, coming from

Yours, &c.

A Member of the British Medical Association.

Mr. Holmes on Country Hospitals.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I have just seen a letter by Mr. Holmes, in your impression of Saturday, the 16th ult., in which, amongst other statements, he, in a separate sentence, makes this one in particular:—

"The fact is, that the Hospitals of London receive a different and a far more acute class of cases from that of country towns, and treat these cases with a success very little inferior to that obtained in the milder cases treated in country Hospitals."

There are two distinct propositions laid down in this sentence; and as they affect country Hospitals and country Surgeons, will you permit me, as a country Surgeon attached to a country Hospital, to ask Mr. Holmes what is the meaning of the first half of his sentence?—"The fact is, that the Hospitals of London receive a different and a far more acute class of cases from those of country towns."

Mr. Holmes cannot mean that the Hospitals of London receive, in the aggregate, a larger number of acute cases than those of the country, as this proposition is self-evident, and does not require to be enunciated even by him, for London has a far greater population than any country town, and the greater the population, the greater the number of acute cases absolutely. But is the proportion per cent. of acute cases larger in London than in a country town?—or does Mr. Holmes mean to assert that an acute case in London is "different" from an acute case in the country? If a man gets his skull fractured in London, or his leg smashed by a railway accident, or is the subject of a strangulated hernia, is the case "different and more acute" simply because it happens in London?—or does Mr. Holmes imply that it is the custom of London Hospitals to take in all "acute cases," and that the Hospitals of country towns take in only the "milder" forms of injury and disease? If he does not mean any of these things, what on earth does he mean? Take my own country town, Leeds, for instance. We have relatively as many acute cases in our Hospitals as any in London, and how does Mr. Holmes make out what he calls "a fact," when he states that the cases in the London Hospitals are "different and more acute" than they are here? How has he got his fact? By what process of induction has he arrived at it, and how can he prove it? It seems to me that an acute case is an acute case all the world over, and that a case of compound fracture or dislocation, a case of ruptured perineum and urethra, a case of bowel obstruction, or peritonitis, or pneumonia, is the same, no matter where it occurs. How these cases can be more "acute" in London than in a country town, and why they should be so, I cannot understand at all, except upon the supposition that a Londoner is more obnoxious to grave disease and accident than a provincial, simply because he is a Londoner.

Mr. Holmes' second proposition, that the London Hospitals "treat these cases with a success very little inferior to that obtained in the milder cases treated in country Hospitals," admits of no manner of doubt as to meaning. It is singularly clear and explicit, and the "country Hospitals" and their Medical staffs ought to be extremely obliged to Mr. Holmes, and feel themselves much flattered for the very high estimate he has formed of their capabilities and Professional skill. But will Mr. Holmes be good enough to inform his "country" brethren where he has got his second "fact," which he asserts with so much self-complacency? Will Mr. Holmes be good enough to adduce any statistics which prove that the success of the "diff.rent and far more acute" case of amputation of the thigh, for instance, in London, is "very little inferior" in success to the "milder" case of amputation of the leg in the provinces?

I am afraid that Mr. Holmes' zeal for his Metropolitan brethren's good repute has outrun his discretion. Instead of lecturing Dr. Richardson on his "enormous errors," Mr. Holmes would do well to look after errors of his own, which are not less enormous. As Mr. Holmes seems to have a liking for uttering general propositions, perhaps he will not be offended if I quote, for his own advantage, the one with which he closes his letter in your columns:—

"Nothing but harm can be done by rash and exaggerated conclusions from imaginary facts." I am, &c., M.D.

Braxy: a Morsel for Professor Gamgee.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I perceive, by an article in the *Lancet* of last week, that Professor Gamgee believes he has demonstrated the "dangers of slaughtering diseased cattle." The evidence he brings forward is, that an ox was ill with pleuro-pneumonia, or, as the Professor intimates, with something worse; and that he was slaughtered by a drunken fellow on the farm, who, shortly before, had inflicted a severe ragged wound on his hand by a chop from a spade. This man died in a few days of diffuse inflammation of the arm; and, besides, four pigs and two dogs who feasted on the bull's viscera were seriously ill in consequence.

We may ask, when will Medical men and sanitarians learn a little of the value of logic, and of the laws of evidence, and refuse to bring forward defective instances like this? If Professor Gamgee were not so absorbed by the search for facts to suit his special purpose,—a most excellent and laudable purpose, no doubt—he would remember that the archives of Surgery are full of cases of drunken men who die of diffuse inflammation after even more trivial injuries than this, and that, therefore, the case before us proves absolutely nothing.

Don't let it be supposed that I am blind to the filth and indecency of eating diseased meat. Only in this, as in every other case, every exaggeration, and every doctrine sought to be proved without due evidence, does but recoil on our heads and weaken our cause.

There is no doubt but that large quantities of *braxy—i.e.*, mutton which has died of disease—are consumed in Scotland; some of it, too, finds its way southwards, in the shape of *mutton hams*,—a food relished by Cockney tourists, but which the *callidus viator*—your knowing man—rejects with disgust. Being desirous of knowing something more about the popular use of it (I had read of it in Hugh Miller's Autobiography), I wrote to a philosophical, but non-Medical, friend who lives in the Highlands, and forward his answer to your valuable Journal. There are one or two personal matters in it which I don't leave out, because they may show the more forcibly the intense horror with which the subject is regarded by my friend. Will Professor Gamgee take up the tale, and tell us whether any, and if so, what symptoms are observed amongst the shepherds who dissect and eat this horrid stuff? I am, &c.

May-fair, February 15. D.

". . . I am going to make a very abrupt transition to your grand question, the subject of which, however (*horreo dicendo*), don't smell of the perfumes emanating from 'Macassar.' You ask, What is *braxy?* Well, Doctor, to tell the truth, I would as soon have expected the Archbishop of Canterbury to put the question as you. You were previously wandering among the highest regions of art, squinting here and there at architecture, hymnology, cathedrals, and church service, and now you come down pat with—'What is braxy?' It reminds me of a person enveloped in a delicious cloud of incense, and then going away to have his olfactory nerves regaled with the strong effluvia of a dissecting-room. Well, I am not particular about smells, but certainly my mind made an inward protest against your rapid descent from 'the beautiful and sublime' to Scotch braxy. Here goes, then. After having deeply pondered upon the many questions which you proposed about dead sheep, and having called in shepherds and farmers to aid me with their counsel and experience, I find myself vastly illuminated, and quite prepared to treat you to 'braxy' scientifically.

"'Braxy' is a word whose etymology is nowhere to be found; it still lies among the '*recondita et obscura*.' In Gaelic it is spelt thus: 'bragsaid;' the word approaching nearest to it is 'braghad,'—a throat, windpipe, etc. The disease known under this name is an accumulation of water between the flesh and the skin, a swelling at the throat, and the bowels very much constipated. If the carcase of a sheep, defunct of 'braxy,' be not found by the shepherd at least fifteen hours after its exit from the cares of this life, no mortal ingenuity can convert it into an article of food; but if it be found within the fifteen hours, it is first bled, then skinned; but the stench is horrible—it penetrates the tightest doors, and any quantity of them. It is not only loathsome, but its strength overpowers and makes you fly to windward instanter. When the flesh is cut up in the midst of these horrible effluvia, the parts are washed, then buried in a barrel, with salt and water heaped about them. After this process they are withdrawn, with a much less offensive smell, then salted and pickled, and

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hung up in a kitchen to be smoked. When a few weeks have passed, braxy ham is equal, if not superior to any other hams. The change is most wonderful; in fact I have partaken of it, and fancied that it was choice morsels of dried beef ham that I was devouring. But you may be sure that shepherds have not the patience to wait until braxy reach this stage of perfection; they bolt down whole masses of it, with its virgin smells pretty strong yet. The causes of 'braxy' disease have not yet been accurately determined by the knowing ones in the sheep line; at most we can only give negative causes. Thus, sheep never or seldom die of this complaint if fed upon turnips, or upon the low grounds lying close to the seashore tide marks. They never die of it in summer; winter and spring are the fatal seasons. Some imagine that it is brought on by the hard, crisp, and dry grass which they are compelled to eat at these periods; others, etc., etc.—but there are innumerable theories—for sheep science would not be worth anything unless it split men into a multitude of opinions and conflicting theories."

The Printing-press and its Ink.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I am induced to address you on the above subject in reference to the discomforts and strain of vision I feel with many other elderly people in reading the newspapers and periodicals of the day—I allude particularly to the pale ink print. A good black print, even small, can be readily read by daylight, or at night, with ordinary light, using, as may be, spectacles; but the pale print, under the best circumstances, and especially at night, is a most trying and disagreeable task. Our ancestors rejoiced in a good black letter, but modern refinement seems to associate our vision with that of the owl and the pale moonshine. A good black type can be read well by old or young on the usual paper, and as we grow older we need a print legible as to colour as well as size. I shall be glad, Sir, if you can endorse this opinion, for even the great paper of the time, the "mighty *Times*," comes to us more and more in this moonshine garb. I am, &c.

Nailsworth, February 15. T. S.

The New Pharmacopœia.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Some of the "first impressions," by a Chemist, of the British Pharmacopœia which appeared in your impression of last week will, I think, be somewhat modified on reflection. I cannot agree with him when he says that the abolishment of drachms and scruples "seems to be frivolous." The Council having adopted the avoirdupois weights, how is it possible to retain the drachms and scruples, belonging as they do to troy weight?

He says the process given for making Hydrochloric Acid will not produce it. Of course it will not, because it has been omitted to be stated that heat should be applied to the retort. I ask, who, in his senses, would proceed to make this body who had not received a chemical education; and, having that knowledge, would he not apply heat?

The form for Linseed Poultice directs the ground seed from which the oil has been expressed, olive oil, and boiling water, to be used. I conceive it to be a great improvement—this substitution of sweet olive oil for the strong smelling oil of the linseed, especially when required to be applied to sensitive patients.

Crude Commercial Scammony or Resin of Scammony to be used indifferently. He says, "Surely this allows of two very different results." Has it not been proved by numerous experiments that the action of resin of scammony (the method for the preparation of which from scammony root was invented by Professor Williamson) is precisely the same as that of the best scammony gum?

Extract of Taraxacum. "Not an extract, but an inspissated juice." I say, call it what you will—extract, or inspissated juice—it is a great improvement on the form of the London Pharmacopœia. Instead of macerating the root in boiling water for twenty-four hours, boiling, and evaporating, and consequently converting the *inulin* into sugar, the expressed juice is simply heated to coagulate the albuminous matter, strained and evaporated, at a temperature not higher than 160° Fahr., to a proper consistence.

Lozenges are summarily dismissed as "Frivolous." Patients can now get a definite amount of White Bismuth for a dose by using the Bismuth Lozenges of the Pharmacopœia, which was an impossibility when prescribed in the manner very commonly ordered.

If I may be permitted, Sir, I will endeavour to point out a few other improvements to be met with in the British Pharmacopœia.

The directions, that, in the preparation of the Waters, they are to be distilled either from the seed, fruit, leaves, or oil, as the case may be, instead of rubbing down the oil with sand, and adding the water, which was permitted by the London Pharmacopœia. The Decoction of Sarsaparilla can now be prepared in one hour and ten minutes, instead of four hours and a quarter, and with a better result. The introduction of a prescription for the preparation of Digitalin is a step in the right direction. The Extract of Calumba, prepared according to the British Pharmacopœia, is excellent. The Liquid Extract of Ergot will, I dare say, be found useful, although I should have preferred it prepared by percolating, firstly, with spirit, distilling off the excess of alcohol, afterwards exhausting with distilled water, evaporating, and subsequently combining the two extracts. I have for some time prepared it in this manner, and have been assured by Medical men that its effects are admirable.

Purified Ox-bile is infinitely superior to the simply evaporated ox-gall in present use.

Formulæ for Citrate of Iron and Ammonia and Citrate of Iron and Quinia are of first-rate importance. We shall now have definite quantities of iron and quinia in these extensively used preparations, instead of the present variable proportions of each of these important tonics met with. I once tested some so-called citrate of iron and quinia, which did not precipitate anything on the addition of an excess of ammonia; it was innocent of quinia.

The Granulated Sulphate of Iron is a very beautiful preparation, and easily prepared.

The Mercury with Chalk is not quite so strong as that of the London Pharmacopœia; but the directions that the mercury and chalk are to be rubbed in a porcelain mortar until metallic globules cease to be visible to the naked eye, and the mixture acquires an uniform grey colour, is more precise than those of the Ph. L., which directs to rub them together until globules are no longer visible. It is well known that it is prepared on the large scale by machinery, by which means the friction is carried too far, and the result is a dark grey compound, in which chemical combination has taken place. It contains the oxide of mercury, corresponding to corrosive sublimate, and, when so prepared, its effect upon children is most alarming.

Compound Infusion of Gentian is very much improved. The maceration of the ingredients in spirit for two hours extracts the aroma of the orange and coriander, whilst the subsequent maceration for two more hours in water exhausts the gentian. The result is an extremely palatable preparation, which keeps well.

Infusion of Quassia is now prepared with cold water in half an hour.

Solution of Acetate of Ammonia is superior to that of the Ph. L.; it is stronger, and will keep good.

Aromatic Spirit of Ammonia is stronger of carbonate of ammonia and spirit, and, what is of some consequence to the retail chemist, cannot become brown by keeping; its flavour is superior, and it is completely saturated with carbonate of ammonia.

Spirit of Chloroform is evidently intended to supersede chloric ether. The chloroform will not now be precipitated when mixed with water or infusions, as is the case with the so-called "chloric ether."

The Syrup of Poppies is a better preparation than that of the London Pharmacopœia. The spirit separates the albuminous matter, the presence of which, in the old preparation, made it so prone to ferment.

I consider the method by which the Tinctures are directed to be prepared—maceration and percolation—to be a most important improvement: the ingredients are more completely exhausted, and the making up the product to a given measure yields tinctures of a definite and uniform strength. I am, &c.

Knightsbridge, Feb. 9. J. B. Barnes, Pharmaceutical Chemist.

Midwifery Fees to Poor-law Medical Officers.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you do me the favour to insert in your valuable Journal the enclosed account of a trial that took place before J. B. Parry, Esq., Q.C., in the Thame County Court, on the 30th ult.?

I, in common with most district Medical officers, have always believed that we had a claim upon the board of guardians for attendance upon midwifery cases when ordered to attend by an overseer. (See Articles 206, No. I., and 182 of the Consolidated Order, supplied by the Poor-law Commissioners for our guidance.) It appears, however, that it must not only be an order, but a "lawful" order; and that if, after the Medical officer has done his work, the guardians choose to question the legality of all the orders (as in my case), we have no remedy.

To constitute a "lawful" order, the case must be "sudden and urgent;" and, according to Mr. Parry, "no ordinary confinement can be sudden and urgent." Nothing short of a poor creature being taken in the pains of labour "in the street or in the middle of a field" can justify an overseer in giving an order, though the "destitution" be of the most abject description (as in some of my cases).

I shall be very grateful to you or any of your readers for information as to whether this is really the "law," and whether there is no appeal against a decision so inhuman and (as it appears to me) unjust.

I have been a "Union Surgeon" for twenty years (four in the Thame Union), and have always been paid similar orders till within the last three quarters of a year. I am, &c.

Brill, Bucks, February 15. W. Gambier Walker.

WALKER *v.* GUARDIANS OF THE THAME UNION.

This was a claim of £3 10s. for Medical attendance in seven cases of childbirth. Mr. Saywer, instructed by Mr. Parker, appeared for the defendants. The plaintiff represented his own case, and in opening which said—My case is very simple, so far as I understand. I reside at Brill, and am a Medical district officer in the Thame Union. In that capacity I am called on to attend cases of midwifery. I have done so in accordance with instructions issued by the Poor-law Commissioners. I have now been kept out of my claim for three quarters of a year: my charge is 10s. per case, contract with the board of guardians, and as their Medical officer I am bound to attend cases upon receiving an order to that effect from an overseer. Brill, with a population of 1400 inhabitants, has no resident midwife, and the relieving officer lives at Thame, a distance of seven miles. I have been at great trouble and expense coming over to the board, endeavouring to get what is due to me, and the last time I attended I was told by the board that I had no claim upon them. If I have no claim upon them, am I bound to attend to the orders of overseers?

The Judge: Did the overseer give the orders in these several cases?

Plaintiff: Yes, these are the orders I now produce, and I attended the cases in accordance with instructions contained in articles supplied to Medical district officers by the Poor-law Commission. Mr. Walker, after requesting permission, read two articles, in which it was stated that Medical officers must attend cases of childbirth upon receipt of an order from a guardian, relieving officer, or overseer.

The overseer's orders to plaintiff were then examined by the Judge, and afterwards by Mr. Sawyer.

The Judge: The question is, whether an overseer is a proper person to give an order in cases of midwifery.

Mr. Walker (referring to the articles he had just read) replied—It there says so.

The Judge: As a magistrate for the county of Oxford, in case of an accident to a boy, I once gave an order to a Medical man to attend him, and the guardians afterwards refused to pay the claim.

Mr. Walker: What I have read are instructions supplied to us, are they not, in accordance with the Act of Parliament?

Mr. Sawyer referred his Honour to the latter part of article 48, where it stated that orders issued by overseers must be in cases of sudden and urgent necessity.

The Judge: Do you consider that ordinary cases of confinement are those of a sudden and urgent necessity?

Mr. Walker: If I receive an order from an overseer I am bound to attend.

The Judge: What I should term cases of sudden and urgent necessity would be, supposing that a woman was taken ill with childbirth on the road or in a field. I should then have no difficulty in coming to a conclusion for the plaintiff. Are these cases so?

Mr. Walker: They are not of that class. I simply want the case settled, to know how I am to proceed for the future. Medical men do not want these cases; we are subject to be called upon at all times, and under all circumstances; and when we receive an order from the overseer we are bound to attend to it, and the board of guardians tell me they are not bound to pay.

Mr. Joseph Dodwell, chairman of the board, rose to contradict that statement.

Mr. Walker, in reply: The brother of the chairman to the guardians, Mr. John Dodwell, told me I must attend as their Medical officer, but that I should not be paid by them.

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The Judge: The question is, who is to pay you?—I am clearly of opinion that an ordinary case of midwifery is not one of sudden and urgent necessity, and therefore not one to which the guardians would be liable to pay.

Mr. Walker: How am I to act after this, when I receive an order to attend a case? How is it possible for me to ascertain if it is a case that I may get paid for, or one I am bound to attend at my own expense?

The Judge: You must understand that the board are not, in this instance, guardians of their own purse, but of the public purse.

Mr. Walker: Oh yes, they are certainly guardians of the public purse.

The Judge: Judgment will be for defendant. Plaintiff is nonsuited.

Mr. Walker: But your Honour will hear what the overseers have to say? I have attended numbers of these cases before, and have been paid for them by the board. My cause has a precedent. Mr. Smith, a former overseer, is in the room now, who has given me orders like those disputed, which were paid when presented.

His Honour: But I understood you, Mr. Walker, to acknowledge these were not cases of sudden, urgent necessity.

Mr. Walker: What I said was, that they were not cases of women being taken with labour suddenly in the field or on the road.

Mr. Sawyer, addressing his Honour, said these orders express nothing of an urgent character; they merely request attendance.

The overseers were then called; and Mr. Home, in reply to plaintiff, said, as overseer, he was applied to for the orders; and he considered they were cases of necessity. Once or twice the births took place in a few minutes after Mr. Walker arrived there. He (the overseer) considered they were all cases requiring immediate assistance; that some of the poor had not means to pay; and, in one or two instances, the parties for whom the orders were given were really in distressed circumstances.

Mr. Walker applied that the case might be adjourned to get the advice of counsel upon it, observing that he thought his case was so clear that it would not be required.

The Judge, however, declined to grant an adjournment, observing that he sat there to act upon the matter to the best of his knowledge, and that judgment would be given for the defendants. If it were not so, Brill would soon become a lying-in district; persons would go there in cases of childbirth to have attendance free. Upon that principle, any one, by giving notice to the overseer at the last moment, would be able to get an order, and the expense would be charged to the Union.

Judgment for the defendants.

Mr. Sawyer told his Honour that the guardians would not press for costs.

*** We think Mr. Parry's judgment in this matter clearly wrong. If the overseer considers a case sufficiently urgent to give an order on the Medical man, the latter is clearly not in a position to dispute it. The persons employing the overseer—*i.e.*, the board of guardians—are, then, clearly responsible for payment. We recommend our correspondent to write to the Poor-law Commissioners.

COMMUNICATIONS have been received from—

An Old Subscriber; Mr. Thomas E. Amyot; Dr. Adolphe Wahltuch; A Subscriber; The Director-General of the Army Medical Department; Royal College of Physicians of London; Dr. Devenish; Mr. Walker; Mr. W. C. Burder; Dr. Octavius Jepson; Mr. Charles W. Crouch; Mr. F. A. Bulley; Dr. David H. Stirling; Mr. George Smith; Mr. J. H. Barnes; Pharmaceutical Society; Dr. R. Dundas Thomson; Dr. De Ville; Dr. C. Kidd; T. S.; Mr. D. Walker; Dr. J. E. Smith; Royal Medical and Chirurgical Society; Mr. David P. Morris; Ethnological Society of London; Mr. S. J. Stratford; Mr. J. H. Eccles; Dr. J. S. Bristowe; Mr. Whitfield Thurston; Mr. W. J. Scofield.

BOOKS RECEIVED.

The Restoration of a Lost Nose by Operation. By John Hamilton, F.R.C.S.I. London: John Churchill and Sons. 1864.

*** A good account of Taliacotian operations, of those practised in India and elsewhere, is followed by ten cases from the writer's own practice, illustrated by excellent woodcuts and lithographs. The results are given even after some years from the operation, and appear to have been completely satisfactory.

Pharmaceutical Journal. February, 1864. London: John Churchill and Sons.

*** The new Pharmacopœia and the proposed Medical Bill affecting Pharmacy occupy prominent places. The former, here and elsewhere, seems to meet with no unmixed commendation. Several points of therapeutic interest are illustrated, which deserve the attention of prescribers as well as Pharmaceutists.

Edinburgh Medical Journal. February, 1864. Edinburgh: Oliver and Boyd.

*** Dr. Gairdner's Sketch of the Early History of the Medical Profession in Edinburgh; a Naval Contribution on Erysipelas; Information as to the Therapeutic Effect of the Vapours of Coniferæ; Cases of Hernia; and Medical Notes on New Zealand, are followed by Reviews of the new Pharmacopœia and other valuable matter.

Seventeenth Report of St. Mark's Ophthalmic Hospital and Dispensary. Dublin: A. Thom. 1863.

*** Out of 1639 cases, 225 were diseases of the lids and lachrymal apparatus; 971 of the cornea and conjunctiva; 139 of internal tissues, sclerotic iris, and cornea; 166 of lens; 82 of retina, optic nerve, and brain; 56 of atrophy and unspecified diseases. If we exclude cases of injury, cancer, tumours, ptosis, strabismus, etc., we find about 900 cases due to disease of lids and conjunctiva. Now, *quære*, how many of these cases fall under the category of disease preventible by greater cleanliness and better diet, to say nothing of an increased number of Hospitals for each treatment?

The Englishwoman's Journal. February, 1864. London: Jarrold and Sons.

*** Miss Bessie Parkes reviews the six years during which this publication has now existed, and the success which has attended this and other efforts for the employment of women. Several communications utter a similar sentiment. A "Well-authenticated Ghost Story" and some poetry add characteristic attraction to this harmless record of Specialism.

Edinburgh Veterinary Review. February, 1864. Edinburgh: Maclachlan and Stewart.

*** Professor Gamgee contributes a memoir on Horse-Shoeing; Mr. James Law, an article on the Physiology of the Pneumogastric Nerve in the Horse. The other information is as varied and valuable as usual.

Anatomy, Descriptive and Surgical. By Henry Gray, F.R.S. Third Edition. By T. Holmes, M.A. Cantab. London: Longman and Co. 1864.

Guide Pratique du Médecin et du Malade aux Eaux Minérales, aux Bains et aux Environs de Mariembad en Bohême. Par le Dr. Emile Kratzmann. Paris. 1863.

An Essay, Historical and Critical, on the Mechanism of Parturition. By William Leishman, M.D. London. John Churchill and Sons. 1864.

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 13, 1864.

BIRTHS.

Births of Boys, 1009; Girls, 996; Total, 2005.
Average of 10 corresponding weeks, 1854-63, 1923·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	803	844	1647
Average of the ten years 1854-63	657·5	662·8	1329·3
Average corrected to increased population..	..	..	1452
Deaths of people above 90	..	..	6

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	2	6	10	1	4	7	1
North ..	618,210	2	8	10	1	13	19	4
Central ..	378,058	..	4	5	..	14	8	2
East ..	571,158	3	1	13	2	18	23	..
South ..	773,175	1	13	17	2	16	15	8
Total ..	2,803,989	8	32	55	6	65	72	10

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·525 in.
Mean temperature	34·6
Highest point of thermometer	53·8
Lowest point of thermometer	20·1
Mean dew-point temperature	29·9
General direction of wind	Variable.
Whole amount of rain in the week	0·34 in.

APPOINTMENTS FOR THE WEEK.

February 20. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m. Royal Free Hospital, 1½ p.m.

Royal Institution, 3 p.m. Professor Frankland, "On the Metallic Elements."

22. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital 1½ p.m.; Samaritan Hospital, 2½ p.m.

Medical Society of London, 8½ p.m. Lettsomian Lectures on Physiology.—Lecture II.—The Evolution of Carbonic Acid by the Lungs and Skin, and other Phenomena of Expiration and Excretion, under the Influence of various Agencies. By Edward Smith, M.D., F.R.S., F.R.C.P.

23. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Ethnological Society of London, 8 p.m. Rev. T. W. Farrar, "On Ethnological Traditions." Mutu Cumara Swamy, "On the Ethnology of Ceylon."

Royal Medical and Chirurgical Society, 8½ p.m. Mr. Savory, "On the Absorption of Dead Bone." Mr. Nayler, "Observations upon Alopecia."

Royal Institution, 3 p.m. Professor Tyndall, F.R.S., "On Experimental Optics."

St. Mary's Hospital Medical School, 8 p.m. Dr. Grailly Hewitt, "Clinical Conference in Midwifery."

24. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m., Middlesex, 1 p.m.; London, 2 p.m.

Hunterian Society, 8 p.m. Dr. Barnes, "On Cases of Ovarian Cystic Disease terminating in an unusual Manner."

25. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m., Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.

Royal Institution, 3 p.m. Professor Tyndall, F.R.S., "On Experimental Optics."

26. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

Royal Institution, 8 p.m. J. Prestwich, Esq., "On the Quarternary Flint Implements of Abbeville, &c."

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CHLORODYNE CHANCERY SUIT.

JANUARY 11th, 1864.

BROWNE AND DAVENPORT versus FREEMAN.

"It was fully proved and established in Court, before Vice-Chancellor Sir W. P. Wood, that Dr. John Collis Browne was the Discoverer of Chlorodyne.

"The Vice-Chancellor observed that Dr. J. Collis Browne's Chlorodyne was known before the Defendant 'Freeman' had ever thought of using the word; that the Defendant's conduct led to a very strong suspicion that there was a gradual course of proceeding on his part to mislead people into the belief that, when they bought his medicine, they were purchasing Dr. J. Collis Browne's Chlorodyne; and that, if the Plaintiffs could show that any one had actually been deceived, an Injunction would be granted."—*Times*, January 12.

Affidavits from eminent Physicians and Surgeons of the Metropolitan Hospitals proved, beyond doubt, that Dr. J. Collis Browne was the discoverer of Chlorodyne; that they prescribe it largely, and invariably mean the original Chlorodyne of Dr. J. Collis Browne.

An Affidavit by Mr. Warington, Chemical Operator to the Apothecaries' Company of London, also established the fact, that Dr. Browne was the inventor of Chlorodyne; that the Company receive large orders for the supply of Chlorodyne for the Public Service, Hospitals, Merchants, and the Profession; and that, when Chlorodyne is ordered, they invariably supply Dr. J. C. Browne's.

Affidavits from Messrs. John Bell, Pharmaceutical Chemists, 338, Oxford-street, and several leading Wholesale Druggists of London, to the same effect, and that, when Chlorodyne is ordered, they invariably supply Dr. J. Collis Browne's.

Sole Manufacturer—J. T. DAVENPORT, 33, Great Russell-street, Bloomsbury, London.

N.B.—In Chancery: Browne and Davenport versus Freeman.

J. T. DAVENPORT will thank any Member of the Medical Profession who will forward information that he has been misled by the Defendant Freeman's Advertisement into the belief that he was purchasing genuine Chlorodyne.

The observations of the Vice-Chancellor, as reported in the "Times," speak for themselves.

Each Affidavit from Physicians, Surgeons, and Chemists affirms that Dr. Browne's Chlorodyne was known to them in 1855; whereas the Defendant "Freeman's" Compound was not heard of until 1859, after the Genuine and Original Chlorodyne had obtained world-wide fame.

CHLORODYNE CHANCERY SUIT,

JANUARY 11th, 1864.

BROWNE AND DAVENPORT *versus* FREEMAN.

NOTICE.

Advertisements have appeared in the "Lancet," "Medical Times," and "Chemist and Druggist," apparently inserted by the Plaintiffs in this Suit, containing unfounded and perverted statements of the effects of the Affidavits made by various persons on their behalf, which might tend to mislead the public, were they permitted to remain unanswered.

Mr. FREEMAN deprecates most strongly any notice being taken of a Suit until its termination, but he is driven by the unfair acts of the Plaintiffs to set himself right.

It is not true that it was in any way proved that Dr. John Collis Browne was the Inventor of Chlorodyne; it is still in issue; and the effects of the Affidavits filed on behalf of Plaintiffs tend to show that Freeman's Chlorodyne is becoming the preferred Medicine.

Affidavits from eminent Physicians and Surgeons, on Mr. Freeman's part, proved clearly that the Plaintiffs had no case, and so the Vice-Chancellor considered, or he would have granted the injunction.

As Mr. FREEMAN is most anxious that the world should know his Chlorodyne, and not be deceived by any other, he intends to make his Bottles, Labels, and Wrappers still more unlike any other makers as he possibly can. He also intends to continue to publish to the world the fact, that he is the Inventor of this valuable Medicine.

In Bottles, 1 *oz.*, 1*s.* 6*d.*; 4 *oz.*, 5*s.*; *and* 8 *oz.*, 8*s.* 6*d.*

Manufactured by the Inventor, RICHARD FREEMAN, Pharmaceutist, Kennington-road, London, S.

DR. DE JONGH'S

(Knight of the Order of Leopold of Belgium)

LIGHT-BROWN COD-LIVER OIL.

SELECT MEDICAL OPINIONS.

Sir HENRY MARSH, Bart., M.D., Physician in Ordinary to the Queen in Ireland:—"I consider Dr. de Jongh's Cod-liver Oil to be a very pure Oil, not likely to create disgust, and a therapeutic agent of great value."

Dr. BARLOW, Senior Physician to Guy's Hospital:—"I have been well satisfied with the effects of Dr. de Jongh's Cod-liver Oil, and believe it to be a very pure Oil, well fitted for those cases in which the use of that substance is indicated."

Dr. LANKESTER, F.R.S., late Lecturer on the Practice of Medicine, St. George's School of Medicine:—"I consider that the purity and genuineness of this Oil are secured in its preparation by the personal attention of so good a Chemist and intelligent a Physician as Dr. de Jongh, who has also written the best Medical Treatise on the Oil with which I am acquainted. Hence I deem the Cod-liver Oil sold under his guarantee to be preferable to any other kind as regards genuineness and medicinal efficacy."

SOLE CONSIGNEES AND AGENTS,

ANSAR, HARFORD, & CO., 77, Strand, London, W.C.

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ORIGINAL LECTURES.

LECTURES ON THE BRITISH PHARMACOPŒIA: ITS CONSTRUCTION, ITS COMPARISON WITH THE LONDON PHARMACOPŒIA, AND THE VALUE OF ITS NEW REMEDIES IN THE TREATMENT OF DISEASE.

DELIVERED AT

The Royal College of Physicians,

By A. B. GARROD, M.D., F.R.S.,

Fellow of the Royal College of Physicians: Physician to King's College Hospital.

LECTURE III.

(Continued from page 194.)

We must now refer to a most important class of remedies—a class of which the number of members is large, and the changes effected in the British Pharmacopœia by no means inconsiderable. I will endeavour shortly, but I trust clearly, to bring this subject under your consideration to-day.

In the London Pharmacopœia, Iron in its metallic form has never been introduced as a remedial agent. It is true that Iron wire was placed in the Materia Medica, but only as a material for the preparation of some of its compounds. Now, however, in the British Pharmacopœia, it is inserted as a medicine, under the head of Ferrum Redactum, or Reduced Iron—a preparation which has been for some years employed abroad as Fer Réduit., and also to a limited extent in this country.

The name Reduced Iron is applied on account of the manner in which it is made. It is, in fact, iron which has been reduced to a metallic state from its oxide by means of hydrogen gas. If, for example, the red oxide of iron, brought to a bright red heat in a gun barrel, has hydrogen gas passed over or through it, the oxygen of the iron unites with this hydrogen, water is formed, which passes off in vapours, and metallic iron in the state of fine division remains, which forms the Ferrum Redactum under consideration.

There are many difficulties in its preparation which I need not allude to here; but I may remark that, rightly prepared, it has a steel grey colour, is strongly attracted by the magnet, scintillates beautifully in the flame of a spirit lamp, and to a great extent is soluble in very weak acid solutions, with the evolution of bubbles of hydrogen. I say to a great extent, because a certain amount of magnetic oxide is always present, even when the preparation is most carefully made. When exposed to the air, it is liable to become oxidised, losing its steel grey colour, and assuming a duller appearance, and after a time it acquires a reddish-brown colour. It should, therefore, be preserved in carefully closed bottles. Having had a somewhat extensive experience of this remedy during the last ten or twelve years, I feel some confidence in stating my opinion of its value as a therapeutic agent.

In the first place, Reduced Iron is very easily dissolved in the stomach. This is made evident at times, when the medicine is taken fasting, from the slight eructation of hydrogen gas.

Secondly, it appears to produce little or no topical influence on the mucous membrane of the stomach, more especially when taken with the food. As long as it remains undissolved, it is probably inert, and as it gradually becomes dissolved it is absorbed, and hence at no one time is there any amount of an active remedy in contact with the stomach.

Thirdly. From the result of a great number of observations carefully conducted during the course of many years, and compared with those obtained with various other preparations of Iron, I can unhesitatingly affirm that Reduced Iron is *one* of the most potent, and for the amount given, the *most* powerful remedy in restoring the condition of the blood in all anæmic states of the system. It is in cases in which we require the hæmatinic effects of iron, and these only, that the preparation is peculiarly adapted. I should question if it possesses the astringent properties of many of the ferruginous compounds, and, therefore, should prefer these latter in the treatment of passive hæmorrhages, and in very relaxed conditions of the habit.

In administering Reduced Iron we must remember that we are giving the metal in an almost pure state, and, therefore, as it is readily absorbed, the dose need not be large; one grain, for example, of pure iron should be equivalent to more than five grains of the citrate of iron and ammonia. It follows from this that even a single grain, repeated two or three times a day, produces, when continued for some period, a marked influence upon the constitution of the blood, when this fluid is impoverished in respect to its red corpuscles.

In my own practice I have invariably made it a point to give this medicine at meal times, and a few grains between two pieces of bread or bread and butter are scarcely detectable by the patient, whether young or old. Iron in this state is most valuable when we desire a long perseverance in the remedy, as many will thus continue its use who would object to take the ordinary form of medicine. In many cases of cardiac debility I have found essential advantage from this plan of treatment.

We next come to the Oxides of this metal; and we find one that is new to an English Pharmacopœia, namely, the Magnetic Oxide, and there is likewise a hydrated state of the Peroxide of Iron under the name of Ferri Oxidum Hydratum. With regard to the first of these, I have only to remark that the preparation ordered in the Pharmacopœia is not the common scale iron reduced to powder, but a precipitated oxide most carefully dried over sulphuric acid, and without the aid of artificial heat; so that it is in a condition most favourable for solution in the stomach and subsequent absorption into the system. In some respects this Magnetic Oxide resembles the Reduced Iron, for example, in being attracted by the magnet; but it gives no bright scintillation when sprinkled over a flame, and is certainly less soluble in weak acid solutions. As far as the value of the Magnetic Oxide is concerned, I do not feel justified in speaking with so much confidence as in the case of the Reduced Iron. That it is a useful hæmatinic I do not doubt, and it has also the advantage of being cheap. In the few clinical trials I have made with this substance in comparison with the metallic or Reduced Iron, the results were certainly in favour of the latter preparation. I should, however, desire more extended experience before giving a decided opinion on this point. It may, perhaps, be well to mention the composition of this salt; its formula is Fe_3O_4, but there is every reason to suppose that it is more correctly represented by the following—FeO,Fe_2O_3, a mixed oxide, or rather salt, in which the protoxide of iron plays the part of base, and the sesquioxide acts as the acid. As prepared according to the process of the British Pharmacopœia, it retains about 22 per cent. of water. The dose may be from three to five grains, or even more, and it may be administered with the food.

The Hydrated Peroxide of Iron has been used as an antidote to arsenic in cases of poisoning, from its power of forming an insoluble compound with that acid. It has no peculiar virtues as a remedial agent.

The Iodide of Iron, formerly in the London Pharmacopœia, has been put into the list of the present work; there is likewise a pill containing this salt in the second part. The solid Iodide is very liable to become oxidised on exposure to the air, and hence the syrup is more frequently prescribed than the salt itself; in the pilular form change is, to a considerable extent, retarded.

The Phosphate of Iron will likewise be found in the Materia Medica; it is a medicine which has been long employed, but of late much neglected. It is blue, from partial oxidation; but, when freshly precipitated, it is almost white, but becomes coloured in drying. A syrup of the Phosphate is ordered to be made containing one grain of the Iron Salt to each drachm of syrup.

I know of no clinical facts proving that the Salts of Iron with Phosphoric Acid possess any powers superior to other ferruginous preparations; but, as part of the iron in the system probably exists in this condition, there appears to be a widespread opinion that the Phosphates of Iron must be efficacious remedies. The Blue Phosphate was largely used by the late Dr. Prout in the treatment of diabetes, and that it is a useful remedy I have had ample proof. Some years since I was in the habit of prescribing an Iron mixture made according to the formula of the London College, but containing the Phosphate of Iron in place of the Carbonate, and with such a mixture I was enabled to treat successfully anæmic conditions of the system. Lastly, there are contained in the British Pharmacopœia three persalts of Iron—namely, the Persulphate, the Perchloride, and the Pernitrate.

The Persulphate of Iron is contained in the appendix in the

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form of solution, and from it several of the ferruginous salts are prepared; it can, of course, be employed as a remedy for internal or external use. Symbol $Fe_2O_3,3SO_3$.

The Perchloride of Iron is introduced as a saturated solution, Liquor Ferri Perchloridi, each fluid ounce yielding nearly 125 grains of peroxide of iron; from this solution the tincture is ordered to be made, by the addition of three times its volume of rectified spirit, and in each fluid ounce contains about 31 grains of iron, measured as the old oxide. You will, therefore, perceive that, in ferruginous strength, it differs but little from the Tincture of the Sesquichloride of Iron of the London Pharmacopœia. It is, however, a very superior preparation, uniform in strength, which the old tincture was not, and free from the large amount of acidity contained in the former preparation, which was frequently a bar to its administration in large doses.

The symbol of its contained salt is Fe_2Cl_3.

The Pernitrate of Iron, $Fe_2O_3,3NO_5$, is also in the form of solution, which is an orange-brown liquid, intensely astringent and somewhat acid. It has been used, more especially in Ireland, as a powerful astringent acid.

It will be seen that the British Pharmacopœia is rich in these salts of Iron; and an extensive choice is, therefore, at the option of the Practitioner.

Before concluding my remarks on the Iron preparations, I may state that the ammonio-chloride, which was simply a mixture of hydrochlorate of ammonia and the perchloride of iron, has been omitted, as likewise, of necessity, the tincture of the same; and it will be observed, that not only is the crystallised green sulphate of iron present, but likewise the dried salt, *Ferri Sulphas Exsiccata*, from which six of the seven equivalents of water have been expelled by heat, and which is a very convenient form for exhibition of the salt as a pill—but it should be remembered that four and a-half grains of the dried salt is equivalent to nearly seven grains of the crystals; and, lastly, a second form of the crystallised sulphate, *Ferri Sulphas Granulata*, brought to the finer division by means of rectified spirit. This last preparation is much less readily oxidised by exposure than the ordinary form of the crystals, and may be used either as a medicine or employed as a test.

Of the Arseniate of Iron, as likewise of the double Salt of Iron and Quinine, I shall have occasion to speak in a future Lecture.

Since the publication of the British Pharmacopœia, I have seen a remark expressive of surprise, that some of the salts of manganese have not been made officinal, seeing that they are largely employed in medicine; and I may, perhaps, be allowed, having made many clinical observations upon their properties, to occupy your time in giving the results of my inquiries; and I do so, at the present period of our course, from their supposed relation to the ferruginous preparations we have just discussed.

The Black or Binoxide of Manganese is contained in the appendix, but is only used in the *preparation* of medicines, as Liquor Chlori, for example.

Some few years since, the *Sulphate of Manganese* was proposed as a purgative, and was considered to be useful as a cholagogue. In doses, of from an eighth to a quarter of an ounce, it purges somewhat like the sulphate of magnesia, and bilious actions are often the result; but I am not certain whether it influences the biliary organs more than other cathartics; it can scarcely be said to be used for this purpose at the present day.

Lately, however, first in France and afterwards in this country, some of the salts of manganese, more especially the carbonate, have been introduced as remedial agents; and it has been argued that the blood corpuscle contains manganese as well as iron, and that a variety of anæmia may exist, dependent not upon any deficiency of the ferruginous compounds, but from the want of manganese; and that when such is the case, the exhibition of the salts of this metal prove curative, even when iron has been previously administered without advantage. About five years since I had an opportunity of trying the action of manganese salts in several cases of well-marked anæmia, accompanied with amenorrhœa, and the mode in which the observations were conducted was as follows:—

After admission into the Hospital, the patients were placed for a week or two upon a generous diet, without medicine, and the influence of this treatment noted. This precaution was necessary, especially in Hospital patients, as anæmia may be kept up, if not produced, by bad air, hard work, and insufficient food. If no marked amelioration ensued, the manganese was administered, to some, in the form of the crystallised sulphate in doses of about five grains. This salt, it may be observed, corresponds exactly with the green sulphate of iron, and is isomorphous with it, as seen in the table—

$FeO,SO_3+7\,HO$, Sulphate of Iron.
$MnO,SO_2+7\,HO$, Sulphate of Manganese.

To others a mixture was exhibited, made as Mistura Ferri, or Griffiths' Mixture, with the substitution of sulphate of manganese in place of sulphate of iron; and to a third set, the carbonate of manganese was ordered in the form of powder. In no single case could the hæmatinic powers of mangenese be discovered, although the use of the preparations was continued for some weeks; but in every instance where iron salts were afterwards administered, speedy recovery ensued.

It is a somewhat remarkable and suspicious circumstance, that when manganese was first proposed as a remedy in anæmia it was given alone; but after a time, double salts of manganese and iron were substituted. These are, doubtless, of value, if only from the iron contained in them. I have no experience of the use of the manganese salts in other forms of disease, and, with regard to their power in restoring the condition of the blood in anæmia, can only say that as yet it has not fallen to my lot to find any case that has been cured by them; and I think I have had sufficient experience in their use to justify my feeling some considerable doubt of their hæmatinic properties.

Fel Bovinum Purificatum, or Purified Ox Bile, is made officinal, and a process given for its preparation from perfectly fresh bile by means of rectified spirit, by which the albuminous and mucus substances are removed, and the drug rendered altogether more pure and less liable to undergo decomposition. Ox gall is supposed to be of value in those forms of dyspepsia in which the secretion or excretion of bile is deficient; given in doses of a few grains it is said to aid intestinal assimilation, and promote the peristaltic action which the absence of bile impedes. It is desirable that it should not come in contact with the stomach, and hence it has been proposed to give it in capsules or well-covered pills. A few grains only of the Pharmacopœia preparation would represent a somewhat large amount of liquid bile.

I must confess I am not a convert to the use of the products of the digestive apparatus of animals in the treatment of disease: without denying their influence, as my insufficient experience would not allow me to do, I cannot help thinking that our endeavour in diseases of these organs should rather be directed to the restoration of their functions than to the supplying them with the products obtained from other animals, which, at the best, must be looked upon as but a very temporary method of relief. Pepsine has not been introduced into the Pharmacopœia, although, I believe, much used in practice.

The sweet principle obtained either from the saponification of fatty substances, or from their decomposition by the agency of superheated steam, and termed Glycerina, is now made officinal. Glycerine, $C_6H_5O_3+3HO$, when pure, forms a colourless liquid, sp. gr. about 1·5, soluble in water and spirit, and itself a most powerful solvent of many medicinal substances, as arsenious acid, borax, and so on. It has also the property of not becoming dry when exposed to the air, nor of undergoing any very appreciable change. These qualities render it valuable both as a pharmaceutic and medicinal agent.

As an external remedy, it may be added to lotions, to prevent their drying; it may likewise be applied, either alone or united with other substances, to any surface for the purpose of lubrication or protection from the air. Glycerine has been proposed and frequently given as a substitute for cod-liver oil. Even as far back as 1848, when this principle was little known, I made many trials of its value, employing it in cases where I should otherwise have ordered cod-liver oil; the results of these observations may be thus summed up: although in phthisis it not unfrequently allayed the irritation of the cough, probably in the same manner as syrups and mucilaginous fluids would do, yet it exerted no marked influence over the progress of the tubercular disease, and in no way could it be looked upon as a substitute for cod-liver oil.

Within the last few years I have not only verified the general truth of this statement, but have likewise been able to make some definite clinical observations upon its action. A patient was selected with a small amount of tubercular deposition, one in whom the activity of the disease appeared to be arrested, but who had not regained flesh; his weight was

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accurately determined, and he was then placed on cod-liver oil; a steady increase of weight ensued, averaging a pound each four days; after a short time the use of the oil was discontinued, and with this a check to increase of weight. Glycerine in the same doses was next given, but with no further increase of weight during a week or so. Cod-liver oil was afterwards again administered, and the same result followed as on the first occasion.

Observations of a similar kind upon several patients have convinced me that glycerine possesses none of the therapeutic properties for which cod-liver oil is so highly prized—no power, in fact, of arresting waste in the system. Glycerine may be made use of for the purpose of sweetening articles of diet when sugar is objectionable, for example, in diabetes.

ORIGINAL COMMUNICATIONS.

ON RUPTURE.

By JOHN WOOD, F.R.C.S.,

Demonstrator of Anatomy, King's College, London, and Assistant-Surgeon to the Hospital.

No. IV.

Truss-pressure in Inguinal Hernia.

When the abdominal contents first protrude, in a case of oblique hernia, an enlargement of the small pouch or digital impression in the peritoneum, at the side of the deep ring, is effected by the yielding of the peritoneum at its attachment to the fascia transversalis. In some cases this is owing, no doubt, in a great measure, to the yielding or weakened condition of the peritoneal structure itself. In most cases, and especially in those before referred to, as having a congenital origin, the protrusion of peritoneum through the deep ring is promoted, or entirely brought about, by the open condition of this aperture in the fascia transversalis, and its want of due support from the internal oblique muscle. When the bowel or omentum has once obtained a lodgment in the canal, the process of dilatation is carried on with greater advantage and celerity. The aponeurosis of the external oblique, at that part of the outer pillar which is placed over the deep ring, is propelled outwards. Its yielding is favoured by a relaxed condition of Poupart's ligament. But the chief dilatation of the canal is accomplished at the expense of the posterior and superior boundaries; the latter, especially, formed chiefly by the arched border of the internal oblique (in these cases, less efficient than normal), gives way easily.

In adult cases, the influence of the rectus muscle, also, is greatly felt upon the posterior wall, formed by the same conjoined tendon which gives this muscle its sheath. Contraction of the rectus draws backward the abdominal wall and conjoined tendon towards the spine, while, at the same time, the bowels are pressed outward, so as to bulge into the groins. By this means a double action of dilatation is effected, one of backward traction of the posterior wall, and one of forward impulsion upon the hernial contents. Under these influences a "bubonocele," or hernia remaining entirely in the canal, may attain a large size if the resistance of the superficial pillars be great, without showing much externally. Lastly, the pillars of the superficial ring are separated, first, by yielding of the intercolumnar fascia and arciform fibres, and then, by the bulging outwards or elongation of the fibres of the pillars themselves. Finally, the bowel passes into and distends the coverings of the cord in the scrotum, and the valve-action of the canal is, for the time, destroyed.

In many of the smaller cases, the sides of the canal resume their valve action for a while when the protrusion has been some time reduced, so that the rupture does not descend at once, and may remain in abeyance for days until a portion of bowel or omentum is again forced in. In the direct variety of hernia, the fascia transversalis and generally more or less of the conjoined tendon, yield before the pressure, the peritoneum being at this point (opposite the triangle of Hesselbach) so loose and movable (forming the superior false ligament of the bladder), as to supply readily almost any extent of hernial sac. Sometimes the fibres of the conjoined tendon are split, and give no covering to the sac. More rarely, a direct hernia, while still internal to the epigastric artery, yet escapes at the outer border of the conjoined tendon, and may obtain a small covering of cremaster fibres, and assume a slight obliquity of direction.

On dissecting the coverings of a hernia of whatever size, it will be found that their weakest part, both behind and in front, is that opposite to the long axis of the hernia or inguinal canal. If, consequently, it is attempted to prevent the entrance of the bowel into the sac by the pressure of a convex surface, such as is found in most trusses in common use, the effect is simply to reverse the action of the bowel on the front walls of the sac, and invert its convexity into the canal, and, at the same time, to perpetuate or increase the injurious backward pressure upon the already weakened posterior wall of the inguinal valve.

The theoretic perfection of a truss pad would be one which would fulfil four indications—viz., 1st. To oppose resistance to the first egress of the bowel through the deep ring by flat pressure over its site. 2nd. To press firmly upon the outer pillar and Poupart's ligament, so as to prevent their yielding before the tumour. 3rd. To press firmly and independently upon the upper wall of the canal, lying behind and above the inner pillar; and, lastly, to leave the axis of the canal and the superficial opening uninvaginated and not stuffed out by the front coverings of the rupture.

The ordinary neglect of these indications has led to the practice of putting on convex truss pads, under the use of which the hernial openings are continually widened by invagination of the skin and front coverings of the hernia, giving rise to a gradual increase of the rupture in size, as noticed each time it is suffered to come down. The constant wearing of the truss, with the view of producing a cure by gradually lessening the rupture and closing its openings, thus produces the very opposite effect of enlarging them. This effect is much increased by the constant boring or lateral motion of the side spring during walking in those trusses which have no joint between it and the pad.

To meet these requirements, I devised a truss-pad for oblique hernia, having a perfectly flat surface, rounded off at the edges, and arranged in the shape of an oblique horse-shoe, with one end longer than the other (see Fig. 1). The bow of

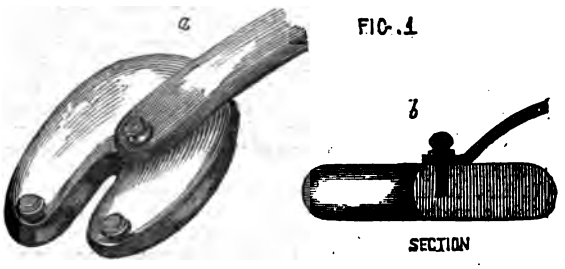

FIG. 1

the bend is placed over the deep opening of the rupture, and the two ends over the two pillars of the ring, respectively following their several directions and obliquities. The cleft or fissure is placed over the axis of the canal and superficial ring. This truss-pad has the additional advantages of permitting the cord to emerge over the pubis without being subjected to pressure, by placing it within or under the cleft. The ends of the pad are also placed on each side of the pubic spine, so as to avoid a source of annoyance resulting from chafing of the skin over this bony projection, which is so commonly experienced in wearing the ordinary pads.

For direct hernia, also, I have devised an ovoid ring pad, with a flat bearing margin, intended to surround the margins of the direct opening, and to prevent their dilatation without invaginating the front coverings of the rupture into the hernial aperture (see Fig. 2). The hole in this pad (like the cleft in

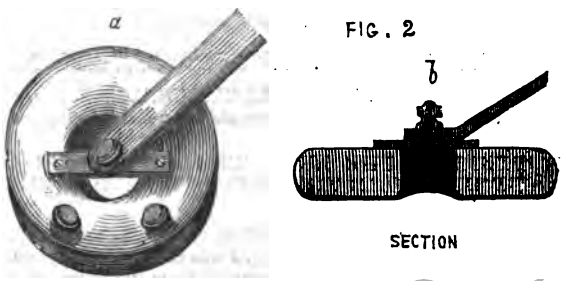

FIG. 2

the horse-shoe) permits of a certain degree of projection of the skin into it, sufficient to fix and hold it from shifting under

the pressure of the side spring or belt, without at the same time permitting the sac or bowel to project, for which a much wider interval would be necessary. These pads, in fact, effect, as nearly as mechanical appliances can do, what the fingers of the Surgeon do when he is holding up the rupture of a patient without invaginating the sac. For ordinary purposes, these pads may be made of boxwood well smoothed off. I have now a great many such in use, both upon patients who have been operated on for the radical cure (after which I consider their temporary use to be essential to support the newly-formed adhesions, without causing their absorption), and upon others who have objected to an operation, or in whom I have considered it unadvisable. They keep their places quite as well as the common pads, and have kept up ruptures which no other truss has been able to accomplish.

An India-rubber water cushion may be fitted to the surface of these pads, which will relieve the skin under their immediate pressure in cases where this is necessary. Mr. Matthews, of Portugal-street, has fitted some for me latterly, which have been very satisfactory. In infants, the pad so protected may be fastened to the body and thigh by an elastic figure of 8 band, of sufficient power to retain the rupture without being liable to shift or to interfere with cleanliness or the movements of the child.

In special cases I have had recourse to a lever spring within the pad itself, acting by two movable ends at the lower part upon a joint at the upper part, in conjunction with the pressure of the side spring or belt. By means of these pad springs we obtain an increased pressure at the lower end of the pad, which enables us to overcome some of the difficulties arising from a protuberant abdomen or projecting hips, as well as those resulting from a peculiar direction of force in the rupture itself. These pads have been worn in many very difficult cases with the best possible results. In some adult cases I have watched, a decided diminution of the size of the rupture has ensued.

It is, however, a matter of common remark, that few cases of cure, comparatively with the number of cases and trusses worn, have resulted from treatment by pressure only, even in the young, and how very rarely such a result ensues in the adult ruptures. In difficult and large cases I have employed a truss-pad split into two halves for independent pressure upon the two pillars. Each half is acted upon by the separate ends of a spring going round the hips like a double truss. The twin halves are connected with each other by an elastic or leather strap.

It has, therefore, long been a desideratum in Surgery to obtain a method of procedure at once safe and efficient to effect a radical cure of this very common and serious deformity. If by a radical cure is meant such a closure of the groin as to render the production of a rupture on that side ever afterwards impossible, then such an effect is no more within our reach than that the cure of an aneurism guarantees against any more aneurisms on the artery operated on; or an operation for urinary calculi against the formation of more stones; or amputation or excision for diseased bone against any more diseased bone; or dividing tendons for deformities against the return, in a certain percentage of cases, of the same, or a like distortion. But if it is meant by a radical cure, that the parts shall be rendered more secure against rupture than the same parts were before the rupture, in a proportion of cases quite as great as the success in most Surgical operations, then I conclude (from the experience of nearly 100 cases during the last six years) that, by the operations which I propose to describe in future papers, this great desideratum may be arrived at with as little or less risk to life or limb as in any Surgical procedure of like importance.

CLINICAL NOTES AND OBSERVATIONS.

By Mr. F. A. BULLEY, F.R.C.S.,
Senior Surgeon to the Royal Berkshire Hospital, Reading.

RUPTURE OF THE LIGAMENTUM PATELLÆ OCCURRING SOME TIME AFTER A FRACTURE OF THE BONE.

A short time ago, while inspecting some prisoners brought into the County Gaol at Reading, I was struck by the peculiar appearance of the knee-joint of one of them, a carpenter, who told me he had received a fracture of the knee-pan about three years previously.

On examining the joint more particularly, I found the patella drawn completely out of its natural position, and lying above the condyles of the femur, with the remains of its ligament, shrunk and contracted, attached to its lower portion. It had been entirely separated from its connection with the tibia, and its absence caused a deep transverse hollow in front of the joint.

On examining the retracted patella itself, I found that it had been broken across at about the line of junction of its lower third, the fragments having been united by a short intervening ligament of about half an inch in thickness, which allowed of a very slight lateral movement of the fractured portions. Flexion of the joint was performed but imperfectly, by reason, probably, of the limb having been kept constantly in nearly a straight position by means of a jointed steel instrument, with a stop, which allowed only a very limited movement of the joint in walking. Extension was equally difficult, on account of the extensor muscles having lost their attachment to the tibia, and he was obliged to give the leg a kind of swing to bring it into the straight position in getting along.

He stated that, about three years before, while playing at cricket, he slipped down, and broke the patella, which, being treated by the elevated straight position, resulted in a ligamentous union with a limited power of flexing the joint. He does not recollect having worn any particular apparatus after this accident. About twelve months after this, in coming downstairs, he again fell, receiving a fresh injury to the part, for which it was thought necessary again to adopt the straight position in bed; and, after a time, he became again able to resume his usual occupations, an instrument having been provided to guard against any great or sudden flexure of the joint. Some time after this, having neglected to put on the instrument, he slipped up for the third time, by which, he says, the parts were torn asunder, but being unwilling to undergo any further methodical treatment, he contented himself with reapplying the instrument, and, as the effects of this accident were not by any means so severe as the former ones, he soon regained his usual limited power of walking upon the limb.

I am not aware that any case precisely similar to the above has ever been recorded by Surgical writers. Mr. Fergusson mentions a remarkable instance of a patient who broke the patella five years before, the fragments remaining separated about an inch. On being brought into King's College Hospital for an injury of the same knee, it was found that the lower fragment had been broken transversely, while the newly-formed ligament above remained uninjured. It is difficult, in this latter case, to suppose that the small portion of bone below the ligament had been fractured, in the ordinary manner of such accidents, through its pulley-like position on the condyles; but it goes to show the great power of resistance of the intervening ligament which would thus allow the tearing apart of structures apparently much more capable of resisting the effects of muscular force, than the comparatively recent connecting tissue of the fracture—a fact which is strongly illustrated by the case I have related.

Practice of Medicine at Rome.—Dr. Moriarty, of Dieppe, in a communication to a French journal, states that it is at the Pharmacies, indicated by the single word "Farmacia," that the Doctors hold their consultations every day at fixed hours, at the modest sum of a franc per head. It is there, and not to their own houses, that all commmunications are addressed to them. "Our *confrères* at Rome, who are modest, polite, and communicative, seem to lead a kind of nomad life. When you ask them their address, the great probability is, that they will give you that of a Pharmacien; and I recollect the astonishment with which a young Physician regarded the announcement of my intention of paying him a visit at his own house. The usual mode of remunerating the Profession is by annual contract, the sum of 200 francs per annum being the sum generally paid by a prince for attendance upon himself, family, and servants. When there is a vacancy in a commune for a Doctor, one is engaged, with emoluments of from 500 to 1000 francs per annum. It is not very long since that a meeting took place in a commune, with the object of presenting to a Doctor a testimonial for the zeal, skill, and humanity which he had constantly exhibited during twenty years. The proceedings were published; and after a whole column had been devoted to the recital of the praises of this worthy man, it was announced that a sum of *about fifty francs* had been allotted to him."

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REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

EXTENSIVE SUBCUTANEOUS MELANOSIS; THE TUBERCULAR SARCOMA OF ABERNETHY — DEATH—AUTOPSY—SIMILAR DISEASE IN THE CHEST AND ABDOMEN.

(Under the care of Mr. LAWRENCE.)

For the report of this very interesting case we are indebted to Mr. Lawrence's House-Surgeon, Mr. Eccles.

The patient, J. F., aged 33, was admitted in a very emaciated, low condition, and with a peculiarly anxious expression, on January 28, 1864. He said that, eighteen months ago, he first perceived a lump in each groin about the size of a hazel-nut, for which he could not account. Six months after this, another one appeared, just below the umbilicus, which, according to his brother, was at first very like an ordinary wart, and, after rapidly increasing in size, was tightly ligatured, and separated at the end of a month, leaving only a black mark to indicate its original situation. He then stated that, until two months ago, no fresh nodules appeared, up to which period he had felt quite strong and well; but that at this time the hundreds which were scattered all over him now made their appearance, and that he had gradually been reduced to the condition he was in on admission. For eleven years he had been a railway porter; was married, and had two healthy children. His parents were alive, but he had lost a brother some time ago, but did not know of what he died.

When admitted, the original lumps in the groin were about the size of a small egg, hard, nodular, very movable, and apparently an enlargement of the glands of this situation. Scattered over the trunk, lower and left upper extremities, were innumerable nodules, which varied in size from a millet seed to a full-sized pea, and were apparently, for the most part, situated in the subcutaneous tissue. They were thickest over the abdomen and back, but, in the thighs, laid chiefly in the course of the vein. Similar nodules were felt in the situation of the lymphatic glands in the neck. He complained of some pain in the right lumbar region, but otherwise did not suffer much, save from a continual sensation of sinking. No blood was detected in the urine, although he said that of late he had passed blood in his water.

Good nourishment was given him, and palliative treatment followed, but he gradually sank, and died on February 8, eleven days after admission.

On February 9, Mr. Eccles made a post-mortem examination at the patient's own house. On reflecting the abdominal integument, the nodules were proved to be, with few exceptions, entirely subcutaneous. They were easily separable from their connexions, were very uniform in consistence, which was that of soft putty, and quite black. One rib, just at its junction with the costal cartilage, was infiltrated, and the bone softened, so as to be easily cut through with a scalpel. Somewhat larger nodules were scattered over the interior of the thorax, beneath the pleura; and a like condition existed in the pericardium, the cavity of which was filled with a dark serous fluid. Similar deposits were found beneath the visceral layer of the pleura, especially between the lobes, and some of smaller size in the substance of the lower lobes of each lung. The bronchial glands were apparently wholly infiltrated. The heart was studded on its exterior with numerous nodules (very like ordinary dry black currants), which here and there seemed to involve the muscular tissue of the heart. Similar deposits were situated beneath the endocardium, but the valves were unaffected. The liver was only slightly affected, the disease seemingly extending from the surface into the substance of the viscus. The capsules of the kidneys were greatly affected, especially the right, only a very little of the structure of these organs being apparently implicated. The spleen was very firm and small. No deposit could be detected. Attached to the omentum were several masses of disease, of which the largest were two lying in the cavity of the pelvis, each somewhat larger than a man's fist. On cutting through these, they were apparently uniform in structure throughout. The intestines were seemingly natural, save that the rectum contained some pinkish-coloured fæces. The brain, orbits, etc., could not be examined, unfortunately, especially so as the man gradually became blind a few days before his death. The mesenteric glands were affected in the same way as the bronchial, and there were numerous nodules beneath the peritoneum in the sub-peritoneal tissue.

The almost exclusive distribution of the disease in the areolar tissue of the body was remarkable, and perhaps will account for the slight amount of continued or severe pain that the patient at any period suffered.

Mr. Lawrence remarked, at the bedside of the patient, that it was a case which Mr. Abernethy would have classed under his "tubercular sarcoma" division of disease.

HOSPITAL NOTES.

MERCURY IN SYPHILIS.

Any one who is in the habit of going about from Hospital to Hospital will, we think, find that Physicians differ not less as to their facts, than they do as to their theories. In nothing more than in the treatment of disease. A plan that is lauded by one Physician is said by another to be highly unphilosophical. At one Hospital a patient with rheumatic fever is wrapped up in a blanket, and when the heart is examined, a stethoscope, "first warmed," is cautiously inserted between the folds; in another we are told that it is very important to keep the patient cool. We are told in the morning that some new drug is an excellent remedy in chorea, and in the afternoon a case is pointed out to us which has been successfully treated by syrup and water. We can thus only collect personal opinions. Perhaps there is no drug which is so much relied on by some, and so much deprecated by others, as mercury. Some give mercury in all cases of syphilis, and yet we have seen a patient who had indurated chancre and the usual sequelæ, well a year after the last symptom, although he had never taken a grain of it. Mr. Hutchinson has long taught the doctrine, that it does not cure syphilis by any specific action, but that its value is, that it absorbs lymph. For instance, in iritis its use is, that it can clear the iris and the choroid from lymph, so that the pupil is kept free and the retina uninjured.

Now this view is important; for if the influence of mercury in syphilis is simply that it absorbs lymph, we may, one would think, reason as to its effects from what we can see in the iris to what we can hear in pericarditis. Not long ago we mentioned this view to one of our most eminent Physicians, who deprecated the use of mercury in pericarditis, and asked how it happened that mercury absorbed a nodule of lymph in the iris, and had no effect on lymph elsewhere? We were somewhat astonished, when he rolled the question back, by asking if we really believed that mercury did absorb lymph. We know that several Physicians, as Dr. Hughes Bennett, never give mercury in iritis, nor, we believe, does Dr. Bennett give it under any circumstances; yet we know of but one ophthalmic Surgeon in London, Mr. Zachariah Laurence, who does not use it, except a few who give very large doses of the iodide of potassium in its stead, as ten or fifteen grains three times a-day. It must be admitted, that now and then a patient during salivation for iritis in one eye, will have an attack in the other. We have seen this several times, and it is especially mentioned in Mr. Hutchinson's work on "Syphilitic Affections of the Eye." Dr. Walshe has known pericarditis come on in a patient who was under treatment for ptyalism. At our last visit to Guy's, Dr. Gull remarked, in the clinical wards, that he never gave mercury in either pericarditis, pleurisy, or even iritis. He said that he did not believe that it absorbed lymph, but that, on the contrary, it tended to prevent its absorption.

It seems to us that the most positive proof of the power of mercury in procuring the absorption of syphilitic lymph may be obtained in the case of indurated chancres. Probably there is not a single Surgeon who enjoys adequate opportunities for observing the course of well-characterised induration under treatment who doubts on this point. A disc, almost as hard as cartilage, will soften and melt away in the most conclusive manner under its influence. If the mercury be suspended prematurely, the induration will relapse; if it be resumed, it will again diminish. In some cases of iritis with free effusion, its effect is, we think, scarcely less positive.

This view as to the action of mercury in syphilitic disease harmonises with what is now generally taught as to the treatment of soft chancres. It is said by many that soft chancres are never followed by secondary symptoms, but this is still disputed. At all events, it is generally held that, in this form

of primary disease, mercury can do no good, and may do much harm. Mercury should only be used when the chancre is indurated; yet, probably, many Medical men treat all cases of primary syphilis by mercury, but those who do so as a mere matter of routine, without investigating the validity of the opinions strongly urged against the indiscriminate use of this drug, incur a grave responsibility.

We recently heard Dr. Wilks remark that he had not given up his faith in the efficacy of mercury in many diseases, especially syphilis, although he felt doubt as to its value in arresting the inflammatory process. His views on this subject we give below.

The case which suggested the remarks was that of a girl with secondary symptoms. She was being treated with the biniodide of mercury with excess of iodide of potassium, in the form of a drachm of the solution of bichloride of mercury to three grains of the iodide of potassium, a mixture which he had often found to be beneficial when iodide of potassium alone had failed.

In this mixture there is double decomposition, biniodide of mercury and a little chloride of potassium being found. The red biniodide is soluble in the iodide of potassium, which is in excess. The green protoiodide was a favourite remedy with Dr. Brown-Séquard in the treatment of epilepsy and paralysis, when it appeared to be due to syphilis. He would give one-third to one-eighth of a grain, along with four, five, to ten grains of the iodide of potassium, three times a-day. Mercurial inunction is considered by many Surgeons to be by far less deleterious than administration of the drug by the mouth. This is especially a favourite plan with Mr. Wormald. We saw under Dr. Wilks' care a man with an excavated syphilitic ulcer in the throat, involving the soft palate and uvula. He was making no progress towards cure until mercury was used by inunction, when, in a few days, the healing process commenced.

We need scarcely mention that one of Dr. Wilks' colleagues has written a book to draw the attention of the Profession to the deleterious nature of this drug. Again, Mr. Cock, the Senior Surgeon, as did also the late Senior Physician, Dr. Addison, holds that diseases of bone generally ascribed to syphilis are due rather to the mercury used, or rather abused, in the treatment of it.

It seems to us that nothing is given by some more confidently than mercury to "correct the secretions," to act as an "alterative," or, to use a common and rotund phrase, to "unload the portal system." Then, in the other extreme, some will not give it in pericarditis, nor even in acute iritis, when they can *see* a nodule of lymph on the iris.

MERCURY IN INFLAMMATION.

Next to its employment in syphilis comes the use of mercury in inflammatory disease. Dr. Wilks considered that, although it did not arrest inflammation, yet that after the deposition had occurred, either in the lung, pleura, or elsewhere, that its absorptive power could scarcely be denied. He also differed from those who thought mercury of no use in inflammations of mucous membranes, for he had no doubt of its occasional very great value in bronchitis, especially in the acuter forms attacking the smaller tubes. We suppose a great deal would depend on the condition of the kidney. In diphtheria or croup, with albuminous urine, mercury would probably not be considered advisable. And yet, not very long ago, in one of our hospitals, we saw a child treated with mercury for croup, although the urine at the time was known to contain a good deal of albumen.

MERCURY IN BRIGHT'S DISEASE.

We suppose, however, that no one would give a course of mercury for any local affection, if the patient had chronic Bright's disease. It is more the fashion now to treat the patient than his disease, or at least to study the disease in relation to the general tissue-health of the patient. Not very long ago, if a patient's sight failed, either gradually or suddenly, and there were no external defects (in a case, for instance, which would have been called "amaurosis"), it was a very common practice to give mercury to salivation. Now-a-days, no one would be justified in doing this, without first making an ophthalmoscopic examination, to see on what actual disease the amaurosis depends. "If," says Dixon, "the ophthalmoscope had done nothing else than limit the wholesale administration of mercury in eye diseases, it would have conferred an immense boon on mankind." If the so-called amaurosis depended on syphilitic choroiditis, mercury would do good, but if it were merely a local manifestation of tissue degeneration in Bright's disease, it could do nothing but harm. If the ophthalmoscope be not used, the urine should, at all events, be examined before giving mercury, and the presence of albumen, if indicative of renal disease, would, to most Physicians, be a bar to the administration of mercury. Dr. T. K. Chambers writes:—"There is no physical agent capable of doing so much harm in albuminuria as mercury."

As further proof of the danger of using mercury in renal diseases, we may mention that the excessive use of this drug seems to damage a healthy kidney. A young man, lately under the care of Dr. Wilks, was seized with albuminuria after a course of mercury. Dr. Blackhall, in his treatise on "Dropsy," published in 1814, gives several examples of dropsy, with albuminous urine, in persons who were mercurialised. In cases of poisoning by mercury, the kidneys are found gorged with blood, and the urine albuminous, but then lead and other substances produce the same effect.

DR. WILKS ON MERCURY.

In further illustration of this subject, we add the following, recently gathered from Dr. Wilks' observations at the bed-side. It will be seen that he agrees with Mr. Hutchinson in his view as to the mode of action of mercury as a remedy.

The beneficial effects of mercury and some other medicines in syphilis have caused them to be regarded as anti-syphilitic remedies, as if they had some counteraction on the venereal virus. This has been the view of those who have long had faith in their value; for, it must be admitted, there are those who have discarded their use from observing cases progress favourably without them. It is probable that the latter class of Practitioners have not sufficiently discriminated as to the cases in which a good result may be looked for.

Dr. Wilks has long thought that remedies of the kind mentioned are anti-syphilitic, inasmuch as they are absorbent; for it has been shown of late years that the great peculiarity of the venereal disease is exhibited in the exudation of an albuminous matter into the tissues. Why they should be peculiarly useful in syphilis arises simply from the fact, that in no other disease do we see such a disposition to the production of new albuminous matters; but, should new products arise under any circumstances, these same medicines are seen to have the same effect—a sufficient proof that their action is not limited to syphilis alone. In enlargement of the lymphatic glands, in bronchocele, various dropsies, etc., these remedies are eminently useful.

All observers are agreed that mercury, iodine, and some other medicines, if long persevered in, produce an atrophy of the tissues, shown externally by a wasting of the mammæ, testes, etc.; but that if any morbid material exist in the body, and which is always of a much lower formation than the tissues themselves, these will be destroyed in a very short time by such remedies, and long before any effect be discerned on the vital structures of the body. The medicines pick out, as it were, the new and morbid materials. Dr. Wilks has always acted on this principle in administering mercury in syphilis (constitutional or so-called secondary syphilis), and has been able to explain its advantages in certain cases and its failure in others. He has observed a disposition in many Practitioners to administer it in early stages of syphilis and ignore it in the latter, especially if the patient has become cachectic, and by so doing have often failed to relieve either. If one of the first symptoms of venereal taint be a roseolous or lichenous rash, such medicines may produce not the slightest benefit, whereas some saline or antimony may effect much more. Again, if a person long suffering from syphilis fall into a cachectic condition, the habit has been to give tonics, etc., on the supposition that the cachexia is a mere tertiary stage, whereas mercury may often be administered with the greatest success. Dr. Wilks has treated many cases of patients very cachectic, with enlargement of the bones, lymphatic glands, and large ulcers in the throat, where cod liver oil, quinine, and such remedies, produced no good, but a few days of mercurial inunction sufficed to heal the ulcer and benefit the patient more than months of the tonic plan had done.

Dr. Wilks, therefore, holds to the opinion, which, if true, is important from its simplicity and its application to practice, that mercury, iodine, potash, and such remedies, are anti-syphilitic, because in the venereal disease more than in any other affection is there a production of a low, organisable material, which is easily absorbable by such remedies, whose action is seen elsewhere. The rule of treatment, therefore, is to give them where such disposition appears to exist. The proof lies in the fact that, if such a secondary symptom as a node be removed, the disease still remains in the system, and

is ready to show itself again in the same manner as before. The remedies are constantly removing the *effects* without touching the *cause*.

THE MAJOR OPERATIONS OF MEDICINE.

We have long been in the habit of collecting statistics of the major operations of Surgery. The Physician, who stands by the bedside of a young patient, ill with rheumatic fever (before the attack, in robust health, and having to look forward to a life of hard work), has the same kind of responsibility as the Surgeon has who decides whether a limb should be amputated or not; and this responsibility, not only as to the case then the subject of treatment, but as to the influence his practice will have on the minds of students who will afterwards practise, more or less, on the model of their teacher. In the present prevailing scepticism as to old-established remedial agents, might it not then be well to collect statistical records of Operative Medicine? The proportion of cases submitted to really active drug-treatment is but small; and it would be very valuable to ascertain, if practicable, whether in these benefit or the reverse is obtained. Perhaps the number of patients under Dr. Jeaffreson's care in St. Bartholomew's who, during the last twelve months, have been freely salivated, is not larger than could be easily comprised in a detailed tabular statement. It would be very instructive to know what were the special circumstances in each case, and what were the results obtained. Again, we should like to record in tolerable fulness all the cases in which, during 1863, Dr. Gull ordered for his patients in Guy's the use of the lancet; the reasons for its employment, and the results. The treatment of delirium tremens, by heroic doses of digitalis, the employment of belladonna, to its full physiological effect, in certain diseases of the spinal cord, might also rank as major Medical operations. A few years ago, cinchonism, in the treatment of fever, might have held a similar place; but, thanks to the collection and publication of evidence of the kind we speak of, tolerably unanimous opinions are now held respecting it. Before the use of the ophthalmoscope, Mr. Travers, Mr. Tyrrell, and other Surgeons, who paid special attention to eye diseases, were in the habit of obtaining most brilliant results in amaurosis by the use of mercury. In how many cases, during last year, did their successors at Moorfields prescribe mercury for amaurotic diseases, exclusive of those of syphilitic origin, and with what degree of benefit? In recommending statistics, we do not mean the coarse methods sometimes allowed to assume that name, but the discriminative grouping of really similar cases. The plan of lumping together all that can by any possibility be made to come under one name, and then attempting to strike averages, is much like that of the celebrated F.S.S., who persisted in always weighing his letters for the post by the half-dozen together, and can only lead to like annoyance and disappointment. The fallacy of the inductive method is often rather a fallacy in collecting facts for induction.

IMPORTANCE OF KNOWLEDGE OF NATURAL COURSE OF DISEASE.

But we know too little of the natural course of disease. The other day we were told of a case in which a pericardial friction-sound in rheumatic fever, evidently from recent inflammation, disappeared under mercurial treatment. But this did not produce much impression, as we had seen the same result take place in a like case where the patient had had a saline mixture only. Besides, in both these patients, there may have been more disease remaining than the stethoscope would tell us. We heard Dr. Jenner recently impress on his class the importance of being aware that a murmur might appear when a patient was getting well from rheumatic fever. An inexperienced Practitioner might, he said, put this down to a relapse of an attack of the endocarditis; but really it was due to contraction of lymph, which had been effused into the valve during the acute stage of the disease. To give mercury in such a case would be to prescribe for a sound. We require, then, when collecting facts as to rheumatic fever, to know how the heart was months after the patient left the Hospital. Besides, in pericarditis, for instance, as Dr. Gairdner has clearly pointed out,(a) we want more evidence as to inflammation of the pericardium than as to stethoscope sounds. We must be sure that the heart was healthy to begin with; our treatment must be definite as well as "vigorous," and we should examine the organ carefully months after the patient left us apparently well.

(a) "Clinical and Pathological Notes on Pericarditis," by W. T. Gairdner, M.D.

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Medical Times and Gazette.

SATURDAY, FEBRUARY 27.

SIR GEORGE GREY'S AMENDED ACT.

The announcement, by Sir George Grey, that it was "the intention of her Majesty's Government to propose an amendment" of the Insane Prisoners Act, gave universal satisfaction, as affording a hope that we might thereby gain some compensation for the lamentable miscarriage of justice in the Townley case. Probably, some simple-minded lovers of "the true and just" hoped for even more than this. They may have reasoned —"the whole law relating to criminal insanity is felt by all to be in a most unsatisfactory state; there are no great and engrossing subjects of domestic policy to absorb the time and energies of Government and Parliament; while the consideration of criminal insanity, in some degree, will be forced upon them by this Act: surely, then, we may look for some large and statesmanlike measure of legislation on the subject,".

Well, the Home Office has been in labour on the matter; and what has it brought forth? We cannot make use of the well-known classical quotation on the occasion; for the entire absence of any grandeur or loftiness of conception in the present "superior clerk" of that department of the Government, would render that degree of comparison between parent and bantling ludicrous; but if the throes of parturition are in any measure proportioned to the product, the friends and admirers of Sir George Grey may, at any rate, feel assured that his health and strength have not undergone any severe strain.

The proposed legislation is confined to the amendment of Act 3 and 4 Vict., cap. 54; and what does the amendment amount to? The certificate of insanity is to be signed "by two or more of the visiting justices," instead of "by any two justices," and "by two Physicians or Surgeons selected by them," instead of "by any two Physicians or Surgeons;" and on the receipt of such certificate, the Secretary of State "may, if he think fit," direct further inquiry into the case before directing the removal of the prisoner, while the present Act only provides that "it shall be lawful" for him to order such removal at once. The amended Act is to apply to England alone, so that there will be "one law in operation in England, another in Scotland, and another in Ireland." It seems a very sorry piece of patchwork legislation; but it was foolish to hope for more. We must suppose that Sir George Grey approved of the present Act, or it would have been amended long ere this; and as legislation on the matter has only been forced from him by popular indignation, it is natural that he should do as little as possible, and should make the amended Act as like as possible to the present one. Still, the amendments are improvements; and we are taught that we ought to be thankful for even the smallest mercies, though it it is scarcely to his civil governors that an Englishman looks for such teaching.

How the amended law is to be set in action does not appear

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on the face of it. Sir George Grey says, "by those who have to act;" but the phrase, "if any person . . . shall appear to be insane," is precisely the same in both Acts, and we know that in Townley's case the Act was set in motion by his own solicitor. That the justices shall be "two or more of the visiting justices," may be an improvement on the "any two justices," but certainly a very infinitesimal one, for the visiting justices do not appear to be appointed on account of any other fitness than the propinquity of residence to the gaol. That the required "two Physicians and Surgeons" should be selected by the visiting justices, instead of by the friends or solicitor of the prisoner, is a decided change for the better; though it cannot be said that any assurance is thereby given that these gentlemen shall be selected on account of their possessing any experience of insanity, or any special skill in the diagnosis of mental disease, or in unravelling complex and difficult points of evidence, nor is any safeguard given against their being men ruled by special theories of insanity or moral depravity.

We do not learn what is to be the form of the certificate. The present Act simply states that "it shall be duly certified by such justices and such Physicians and Surgeons that such person is insane;" but as it is required that ordinary certificates of lunacy shall state the symptoms on which the diagnosis had been formed, we must suppose that the words "duly certified" mean that the certificate shall be framed like the ordinary legal certificate of insanity; it would be an injustice to Sir George Grey to imagine that it need be only "a deliberate and recorded opinion," without containing the grounds on which that opinion had been arrived at.

We allow, then, that Sir George Grey's Amendment Act will be better than the Act 3 and 4 Vict.; but, at the same time, we think that this mode of determining as to the sanity or insanity of a condemned criminal is inadequate and wrong. It will, we believe, be generally felt that it is not fit or just that such an inquiry should be committed to a private tribunal composed of two or more justices, and two Medical men of their selection. Publicity is the very genius of English justice, and it is imperative that it should be afforded as far as possible under all circumstances. Questions of insanity are, perhaps, not always best tried by ordinary juries; and in the case of a prisoner condemned to death, and after conviction reputed insane, what is called the true English mode of trial by judge and jury would probably be too slow and cumbersome a means of arriving at the truth. The examination ought, we think, to be entrusted to a commission appointed by Government, and their report should be made public, whatever their decision may be. And, we believe further, that the commission ought to consist of Medical men eminent for their experience and knowledge of insanity—the very subject, that is, about which the inquiry has to be made. The opinions expressed in the House of Commons during the debates on Sir George Grey's bill on the unfitness of Medical Practitioners to deal with this question, would be amusing, were not the matter one of such vital importance. Some members would permit of a mixed commission, composed of Medical men and lawyers, while others would not admit Medical men at all; and the latest and most pregnant proofs of the soundness of these opinions are the reports of the two commissioners in Townley's case;—the first from a mixed commission, having been a hesitating compromise, which left the matter pretty much where it was before; while the second, composed of Medical men only, was so clear, logical, decided, and scientific, that it satisfied every one, and removed all the doubt and confusion which had gathered round the case.

As to the machinery by which Government should be moved to appoint a commission, we are inclined to think that a statement from the governor and Surgeon of the gaol, that such and such a convict had become insane, would meet all requirements.

It is greatly to be regretted that Government has not seen fit to take the opportunity of amending the law generally as regards criminal insanity, and of making it more consonant with the knowledge, science, and humanity of the age; and we cannot but hope that Sir Fitzroy Kelly, or some equally competent private member of Parliament, may bring in a bill to supply the neglect of her Majesty's Ministers.

We cannot now discuss the question of how Medical science may be best employed to elicit the truth in cases where insanity may be pleaded; but we would direct our readers' attention to an able and temperate pamphlet on "Insanity and Crime," lately put forth by the Editors of the *Journal of Mental Science*, in which they will find some very judicious and admirable remarks on the subject.

THE WEEK.

THE DEATH-RATE OF MANCHESTER.

The Manchester and Salford Sanitary Association has issued a very able report on the public health of those towns during the last quarter of 1863. During that quarter the deaths were at the rate of 31·2 per 1000 per annum of the living. Of 3286 deaths, 1622, or nearly one-half, were of children under five. The births during the quarter were 3973. There, as elsewhere, high mortality means children's mortality. Scarlet fever was the most fatal of epidemic diseases. The author of the report believes that the history of this epidemic proves that the fever spreads by gradual propagation amongst the people; and that it has no connection with the exhalations emitted from decomposing animal and vegetable matter. On this last point, we doubt if the writer takes the whole facts into consideration; but the question is too large to be discussed now. One point he justly insists on, which is likely not to be controverted,—the necessity of providing fever wards or other means of isolating persons labouring under this disease, so as to check the diffusion of the poison.

THE ARMY MEDICAL DEPARTMENT.

The Medical department of the Army has now come to a dead lock for want of candidates. At the recent competitive examination, we understand that some forty-eight candidates only presented themselves, and that of these thirty-seven were considered competent. This, together with the fact, that of the thirty-three successful candidates in the August examination, whose names we published last week, three only were educated at the metropolitan Medical Schools, is sufficient evidence that the service has lost all attraction for the best class of English Medical students. It is needless to remark upon the striking contrast afforded in the number of candidates for the Medical service of the army compared with all other branches of Government employment, for in the latter there is never any lack of applicants of a high order. The forlorn condition to which the service has been reduced by the suicidal policy pursued since the granting of the original Warrant has received the last confirmation required. The authorities, in their necessity, have determined to abrogate the existing rules as to age and qualification. Another examination for commissions is to be held at Chelsea Hospital on March 21 next, and all legally qualified men under 30 years of age will be admitted to it if physically competent. By a singular retribution, the want of Medical officers is now principally felt in India, the very country where they have been most unfairly treated, to which, in spite of promises to the contrary, the provisions of the original Warrant have never been extended, and where, at the present moment, the Assistant-Surgeon is relatively worse off as regards emolument, when his expenses are taken into account, than anywhere else in the British Empire. The humiliating strait to which the Department is reduced would furnish a fitting epitaph for the late Indian Warrant strangled in its birth. As the present condition of things cannot go on without claiming the interference of Parliament, we would suggest the kind of changes required in the Medical service to raise it from its present condition to one of

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efficiency and popularity:—1. An earlier retirement—say at twenty or twenty-one years—which would necessitate a more rapid promotion from the rank of Assistant-Surgeon. 2. An increase of pay for the rank of Surgeon. 3. The extension of the original Warrant to, or the promulgation of a new liberal Warrant for, India. 4. Changes in the internal management of the Department, and the position and duties of the Army Surgeon in the minor matters of extras, recruiting, branding soldiers, etc. Were a liberal and conciliatory course taken by those in power, the Department might even now regain the short-lived popularity which it acquired on the promulgation of the Warrant of 1858.

THE ALEXANDRA PARK AND THE REGENT-STREET TUNNEL.

We have before us two schemes for public edifices, which are the very opposites of each other in every respect. One is for erecting a huge arcade—or tunnel, as it would better be called—between Bond-street and Regent-street. The obvious objection to such a place is, that it cuts off the free circulation of air through the neighbourhood; it creates a number of shops and residences of the most unwholesome description; and it provides a sickly place of resort for town loungers, liable to be perverted to the worst purposes. The bill for legalising this intrusion was rejected in the House of Lords on Monday night. The other is the Alexandra Park—a scheme for transplanting the late International Exhibition building, with such improvements as would make it difficult for the original architect to recognise his offspring—to a high and breezy hill in the north of London. There health and morality, which always wait upon honest out-of-door recreation, will be fostered. There will be facilities for cricket, gymnastics, horticulture, music, and every other rational kind of amusement. A great gap will be filled up for the north Londoners, who at present are sadly deficient in places of public resort; and in the midst of the prevailing rage for brick and mortar, a magnificent park will be preserved for the public health and recreation.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE IV.—FEBRUARY 9.

The structure of the brain deserves a most careful consideration in connexion with the subject of the present course of lectures, as many of the characters of the groups of the Mammalia have been based upon it. The form of the brain can only be studied upon specimens hardened *in situ*, or from casts of the interior of the cranial cavity, as it immediately loses its shape and the relative situation of its component parts on removal from the body. A series of casts of the cranial cavity of different races of men and various animals have lately been added to the College Museum. Foremost among the morphological characters of the human brain may be given its great relative size; though its form varies much, as a general rule the cerebrum is highest in the parietal region; it covers and projects beyond the cerebellum posteriorly, and it covers and projects beyond the olfactory lobes anteriorly; it has a very slight supra-orbital excavation, which is in relation to the slight projection of the roof of the orbits into the cavity of the skull, and the supra-cerebellar excavation is not deep.

The entire encephalon is capable of division into three principal parts:—1. The fore-brain, consisting of the olfactory lobes, the cerebral hemispheres, and parts surrounding the third ventricle; 2. The mid-brain, the corpora-quadigemina, and the crura-cerebri; 3. The hind-brain, the cerebellum, pons Varolii, and medulla oblongata. Of these the first and last are further divisible into segments. The segments of the fore-brain may be called—1. Olfactory; 2. Hemispheral; 3. Thalamary. Those of the hind brain are—1. Cerebellar; 2. Oblongate. The mid-brain does not need further subdivision.

The olfactory segment in man is extremely small, and has no internal cavity. The characters of the large and important hemispheral segment requires very careful study; each hemisphere is generally divided into three lobes, but the boundaries of these are very vague. A better division is that of Gratiolet, whose work on the "Cerebral Convolutions of Man and the Primates" is the best that has been written on the subject. He divides the external surface of the hemisphere into five lobes, which are called—1. Frontal; 2. Parietal; 3. Temporal; 4. Occipital, and 5. Central; the last is the "island of Reil," placed at the bottom of the fissure of Sylvius. The surface of the hemispheres is covered with a labyrinth of elevations and fissures—*gyri* and *sulci*, as they are technically called. Although at first sight looking most confused, careful attention will detect order, and they can be without difficulty arranged and named, as has been done by Gratiolet, in the following way:—In the first place there are certain fundamental sulci; of these the most important is the well-known fissure of Sylvius. In front of this, on the upper and lateral part of the brain, is a deep, well-marked, and exceedingly constant transverse sulcus, called the fissure of Rolando; this is bounded both in front and behind by two large convolutions, which run nearly transversely, passing slightly backwards at their upper end; these are the antero-parietal and postero-parietal gyri. With the exception of these two, all the gyri of the outer side of the hemisphere run more or less in the longitudinal direction. They are easily remembered—being three on each lobe, and placed in tiers one above the othe:. On the frontal lobe are the infero-frontal, medio-frontal, and the supero-frontal; on the temporal lobe, the antero-temporal, medio-temporal, and postero-temporal; on the occipital lobe, the infero-occipital, medio-occipital, and super-occipital. Bounding the upper extremity of the Sylvian fissure is an arched convolution called the angular gyrus; and connecting the postero-parietal, angular, and temporal gyri with the occipital are a series of small convolutions called the annectent gyri; they usually bridge over a fissure which occasionally exists, called the external perpendicular sulcus.

Upon the inner surface of the hemisphere, or that which is turned towards its fellow, are certain well-marked and important fissures. Between the upper surface of the corpus callosum and the margin of the hemisphere is one running in the longitudinal direction, the calloso-marginal. On the posterior part is a deep and constant fissure, also longitudinal, called the calcarine; and above this, and placed more vertically, the internal perpendicular. Below the calcarine, and running down towards the bottom of the temporal lobe, is the collateral sulcus; and close to the posterior margin of the ventricular aperture is a deep sulcus, the dentate, containing within it a small convolution commonly called the "fascia dentata." The principal gyri on the inner side of the hemisphere are the callosal, marginal, uncinate, and the quadrate lobule. Certain of these external markings have very definite relations to internal portions of the cerebrum.

Each hemisphere has within it a great cavity—the lateral ventricle—which has prolongations, or cornua, extending in three different directions, anterior, middle, and posterior. The whole cavity has a remarkable relation to the corpus striatum, being, as it were, curled round it; so that this body forms the floor of the middle part of the ventricle, but the roof of its posterior and outer portion. The corpus striatum, in fact, is an outgrowth from the middle of the base of the hemisphere, and forms the axis around which the whole is developed. It is also in close relation externally with the central lobe, anteriorly and below with the substantia perforata antica, and internally with a smooth space below the beak of the corpus callosum, which might be called the "substantia lævis." In the descending corner of the lateral ventricle is an elevation corresponding to the dentate sulcus, called the hippocampus major; in the posterior corner is the hippocampus minor, or calcar avis, corresponding with the calcarine sulcus; and between the two is placed the eminentia collateralis, or pes accessorius, corresponding to the collateral sulcus.

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THE PROPOSED ENLARGEMENT OF THE LONDON HOSPITAL.

The Building Committee of the London Hospital have issued a valuable report on a proposed plan for enlarging their institution, which we would print *in extenso* if we had the space. Their receiving-rooms are too small for comfort, or even decency.

"The space allotted for all classes of in-patients is so limited, that the following evils may be noted as immediate results:—

"Only the worst cases can be received. These swell the mortality of the Hospital, and keep out cases far more capable of relief. Governors are thus subject to frequent annoyance from rejection of cases; patients suffer from repeated disappointments, prolonged anxiety, and unavoidable expense; wards are so overcrowded, that not only is the cubic space hitherto apportioned for each patient materially reduced, and the chances of individual benefit so far lessened, but the general economy of the Hospital (involving the arrangements and duties of Medical officers, nurses, and servants, and facilities for cleansing and ordinary repairs) is virtually set at nought—instability and uncertainty prevailing in every department.

"In the out-patient department increased space is most urgently required. Proper ventilation, facility of classification, convenience of Medical and Surgical treatment, and of subsequent dispensing and dressing, together with a decent and proper amount of comfort for the poor, during their lengthened detention in the waiting halls, are all things to be desired in the out-patient department.

"Inability to provide sleeping accommodation for night nurses is subversive of that control which the Hospital should have over the movements of this important class of servants; it materially lowers the standard of the women who can be obtained for night duty in the wards, and lessens their efficiency while engaged in that duty.

"The Hospital has been twice increased as to accommodation for patients, without any provision being made for the largely increased resident staff; and from this cause great inconveniences are experienced. Officers cannot be located so suitably for their work as they ought to be, and no apartment can be allotted for a waiting-room, consulting-room, or extra bed-room, however urgently required."

The Committee say, with regard to the proposed enlargement, that—

"Space for about seventy additional beds is given in the ward arrangements of the proposed new buildings, such beds being intended to be allotted for children, Physicians' male and female patients, obstetric cases, and for male and female Hebrew patients, and their general establishment,—the removal of these cases from the old portion of the building, leaving vacancies where they are most required, and capable of immediate and economical adaptation.

"The Building Committee learn from the surveyor that the maximum cost of the new building will be about £21,000, and that of the requisite alterations of the old about £4,000. This estimate, however, it is believed, will more than cover every possible contingency.

"The following facts are worthy of note:—

"1st. That under similar circumstances, in 1843, when the last enlargement of the building came into operation, *an immediate decrease of mortality was the result*. It fell at once from 10 per cent. to 8, and ultimately as low as 6 per cent. It has now again gone up as high as 8¾ per cent.

"2nd. That between the enlargement of the Hospital in 1830 and that in 1840, the patients had only increased from 8419 to 12,812; while between 1840 and 1863, the increase has been from 12,812 to 30,009.

"And lastly, That while the funded property of the Hospital is now £241,000, in 1840 it was only £194,000 (including £1200 per annum terminable in twenty years).

"The Building Committee would only further urge, believing it to be within the scope of their instructions, *that the establishment must not continue to be worked, as at present, upon its present basis*. The entire system is one of undue pressure, subversive of sanitary arrangements, inconvenient to the Professional staff, unfair towards the patients and the servants of the Hospital, and delusive as regards the advantages offered to governors and the public. Either certain portions of the Hospital must be definitely closed to further admissions—an evil much to be deprecated, and a regulation, moreover, which cannot apply to accidents, whether coming as in- or out-patients—or the wants of the vast population surrounding the Hospital must be more adequately met; and the Building Committee are not without a reasonable expectation that the requirements of this charity, genuine and legitimate as they are, will not be disregarded when duly made known to its supporters and the public generally."

We can only express our belief that the sacrifice of a tenth of the funded property will be a very cheap price to pay for improvements such as these which the Committee wisely desire to attain.

THE MEDICAL PROFESSION AND CERTIFICATES OF LUNACY.

The very difficult and unenviable position in which the Medical Practitioner is placed when called on to sign a certificate of lunacy, has been illustrated by so many instances during the past year or two, that the subject has necessarily become one uppermost in the minds of all who have the interests of the Profession at heart. The law imposes the duty of signing such certificates on the Physician or Surgeon, and rightly so, for he belongs to the only class of the community whose education and training qualify them for the exercise of that power. But it not only gives him no protection in the performance of the duty, but visits him with heavy penalties in case of abuse or error. We are quite alive to the necessity of guarding the public from an improper exercise of the power reposed in the Profession, but we hold that no Medical Practitioner should suffer for mere mistake. We are glad to see that the College of Physicians of Edinburgh has taken the initiative in this matter; and we trust that their efforts to secure the immunity of the certifier in cases where neither wilful error nor carelessness are proved, will meet with powerful support from the other Medical corporations and from the Medical Council.

At an extraordinary meeting of the Royal College of Physicians of Edinburgh, held on February 19, 1864, the following resolutions were moved, seconded, and unanimously agreed to:—

"1. That the Royal College of Physicians of Edinburgh recognises it to be its duty, in accordance with its original charter (1681), to promote Medical science, and also to protect the interests of the Medical Profession and of the public; and that, accordingly, the College has endeavoured, on various occasions, to establish a sound relation between the Profession and the public in the matter of certificates in lunacy.

"2. That the duty of signing certificates in lunacy is one at all times painful and disagreeable, and one peculiarly liable to bring the Medical man discharging it into collision with the patient or his friends; and therefore one, of which, were it practicable, the College feels satisfied the Profession would gladly be relieved.

"3. That the duty of signing certificates in lunacy appears, nevertheless, to the College, indispensable as a part of Medical practice; and that both the public interest and the welfare of the insane themselves require that it shall be performed as freely as is consistent with proper securities against abuse.

"4. That the peculiarity of the position of Medical men in signing such certificates is, that they are thereby brought in contact with persons who are not in full possession of their senses, and who, even after their discharge from an asylum, frequently retain a prejudiced or revengeful feeling against those by whom they were placed under treatment.

"5. That the Royal College of Physicians approves of every reasonable security being given to patients and their friends, in regard to confinement in asylums, and therefore was in favour of Section XXXVIII. of the Lunacy Act (Vict. 20 and 21, cap. 71), which provides that, 'If any person shall grant any such certificate or statement as aforesaid without having seen and carefully examined the person to whom it relates, at the time and in the manner specified in such certificate, with a view to ascertain the condition of such person to the best of his knowledge and power, he shall be guilty of an offence, and shall for every such offence be liable in a penalty not exceeding £50; and if any person shall wilfully and falsely grant any such certificate, to the effect of any person being a lunatic, the person so granting such certificate shall be guilty of an offence, and for every such offence be liable in a penalty not exceeding £300, or be liable to imprisonment for any period not exceeding twelve months.' Prosecutions for these

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offences would be undertaken by a public prosecutor, who may be supposed to act without prejudice in the matter.

"6. That the Royal College of Physicians has repeatedly endeavoured, during the progress of recent legislation in lunacy, to secure the introduction into bills before Parliament, of clauses extending to Medical men some protection, unless in cases where they have signed certificates in lunacy without 'probable cause.'

"7. That the Royal College of Physicians is still of opinion that the legislature, which imposes by statute on Medical men the duty of signing certificates in lunacy, is bound to give them some protection in honestly endeavouring to discharge that duty. The College therefore instructs the Council to spare no efforts to secure the introduction of a clause affording some protection, into any measure which may be brought before Parliament during the present Session."

PARLIAMENTARY.

On Thursday, February 18, in the House of Commons, Lord Naas wished to ask the right hon. gentleman the Chief Secretary for Ireland a question with regard to the extraordinary correspondence published in the newspapers as having taken place between Sir R. Kane, Dr. Bullen, and the Irish Government. Had the annual report of the President of the Queen's College, Cork, for the present year, yet been presented to her Majesty, or laid upon the table of the House? Did that report contain the whole of the correspondence which had taken place between those gentlemen and the Irish Government; and if not, would the right hon. gentleman have the kindness to produce the entire correspondence?

Sir R. Peel said the report of the President had been presented yesterday, and laid upon the table of the House. Some other correspondence had taken place, not between Sir R. Kane and the Irish Government, but between the Inspector-General of Constabulary and Dr. Cullen (laughter)—he meant to say Dr. Bullen; and there would be no objection to produce it if the noble lord wished.

Lord Naas: Am I to understand that that correspondence was published in the newspapers before it was presented to her Majesty?

Sir R. Peel: The correspondence was not published by the authority of the Irish Government. It did, I am sorry to say, appear in the newspapers before the report was laid on the table of this House.

Sir G. Grey asked leave to introduce a bill, founded on certain recommendations of the Commissioners who were appointed to inquire into the operation of the Acts under which sentences of penal servitude may be passed. In the opening of his speech he adverted to some points of a general character, referred to in the report of the Commissioners. The first of these was the statistics of crime. He said that, notwithstanding the increase of crime which had taken place in England and Ireland during the two years previous to the appointment of the Commission, and the prevalence of robbery with violence in the metropolis towards the end of 1862, there had been, during the last twenty years, a considerable diminution of crime, although, during the latter portion of that period, transportation had been almost discontinued, and the population had greatly increased. With respect to the numbers of robberies with violence in the metropolis, in the last six months of 1862, there were fifty-two cases, while, in the last six months of 1863, there were only twenty-six cases. Sir G. Grey attributed this diminution, not to the law by which corporal punishment is now inflicted for this crime, but to the fact, that the gang of persons by whom he believes it was chiefly perpetrated have been all apprehended and brought to justice. The next point he noticed was the treatment of prisoners sentenced to penal servitude, which, he contended, on the evidence of the Commissioners, was not of that lenient character that had been asserted. He quoted the following passages from the Report:—

"A very general impression appears to prevail that the system pursued in these prisons is not of a sufficiently penal character. It has been said that but little work is done by the convicts; that their diet is excessive; that they receive unnecessary indulgences; that their material condition is, in many respects, better than that of free labourers; and that, consequently, the punishment cannot be severely felt. We consider that, upon the whole, this impression is erroneous. The life of the prisoners is extremely monotonous. Having been used, in most cases, to constant change and excitement, they are debarred from all pleasures and amusements; they are compelled to pass their time in a dull, unvarying routine of distasteful labour; and, at the close of each day's work, they return to the cheerless solitude of their cells. The work which they get through is, no doubt, less than what a regard for their own interest induces free workmen to perform, but the labour is by no means light, as we shall show more fully presently; and, considering the previous habits and character of the convicts, and that they are working under compulsion, there can be no doubt that it is much disliked by them."

Further on in the Report the Commissioners said:—

"We doubt whether any great augmentation of severity in the treatment of convicts during their punishment is practicable, especially when we consider that the imprisonment lasts, in many cases, for several years. The prolongation of sentences must, we think, be chiefly trusted to for increasing the fears entertained of penal servitude by the criminal classes."

With regard to the amount of labour performed by the convicts, the testimony of the commissioners proved that it was as much as could be reasonably expected from men without previous training and practice, and not working under the stimulus of remunerative wages. The recommendations in the Report of the Commissioners were of two classes. The first related to matters of administrative detail; the second to matters which rendered an alteration of the law necessary. The first recommendation of this class was, that sentences of penal servitude should not be for a shorter period than seven years, and the Government entirely concurred in the opinion that short sentences should be abolished. With the foregoing recommendation another was connected, that certain of the male convicts should be sent to Australia. Although the Commissioners were, in his opinion, fully justified in making this suggestion, it had awakened so much alarm and opposition in those colonies, that her Majesty's Government thought that, under all the circumstances, it would be undesirable, for the sake of a remote advantage (while asserting the undoubted right of the Crown), to enter into a contest with the colonies, and to insist on doing what was distasteful to them. On the whole, the Government, in declining to act upon this recommendation, thought it expedient to adopt in the bill five years as the minimum term of a sentence of penal servitude. Another recommendation in favour of remissions of parts of sentences, as a reward for good conduct, had been dissented from by the Lord Chief Justice, but he thought the preponderance of the evidence was in favour of the principle; the Government, therefore, thought that it would not be expedient to alter the existing practice of granting licenses, revocable in cases of misconduct. Another recommendation in the Report related to the consequences that should attach to a breach of a license, and Sir George stated the conditions which the bill would annex to the grant of licenses. He explained, in conclusion, some of the minor details of the bill.

After a long discussion on the question of transportation to the Australian colonies, and on that of licenses or tickets-of-leave, permission was given to introduce the bill.

Leave was given to Mr. W. Ewart to bring in a bill to render permissive the use of the metric system of weights and measures in this country. The bill was read a first time.

On Friday, February 19, in the House of Commons, Mr. W. Ewart gave notice that on the first opportunity after Easter he would make a motion for the repeal of the punishment of death.

On the motion of Lord Hotham, an address to the Crown was agreed to for a copy of any letter or memorandum (other than the memorandum dated Horse Guards, February, 1863, now upon the table of the House, Parliamentary Paper No. 406 of Session 1863), signed by the Adjutant-General of the Forces, and addressed to the Commander-in-Chief in India, between the 18th day of December, 1862, and the 1st day of June, 1863, in which his Royal Highness the Field Marshal Commanding-in-Chief is stated to have modified his opinion on the remarks of Sir Hugh Rose on Dr. Turnbull, Surgeon of the 6th or Inniskillen Dragoons; and an address was also adopted for a copy of an order or memorandum, dated Horse Guards, January 14, 1864, and signed by the Military Secretary to his Royal Highness the Field Marshal Commanding-in-Chief, on the subject of the late court-martial on Lieutenant-Colonel Crawley, 6th Dragoons.

The House went into Committee on the Insane Prisoners Act Amendment Bill.

On clause 2,

Mr. G. Hardy said that if the word "death" in the second

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line of the second clause were omitted, it would have the effect of raising the question which he was anxious to discuss. The operation of the bill ought to be confined to the period between conviction and execution; and, if it were intended by the Government to deal with the question of insanity either at the time the offence was committed, or at the subsequent period of arraignment, that end ought to be attained by some different machinery. He did not think that any inquiry consequent upon the certificate of the visiting justices ought to be by a jury. A jury required the direction of a leading mind, and he was far from being satisfied that they were easily directed to a right conclusion. In a pamphlet by Dr. Hood it was stated that, in the six years from 1852 to 1858, 120 persons were tried for murder or attempts to murder, or for acts of personal violence, and were acquitted on the ground of insanity. Of that number, seventy-nine were received into Bethlehem Hospital, and in several instances they exhibited no symptoms of insanity during their residence in the asylum. That showed the way in which juries acquitted prisoners where there was no ground for saying they were insane; and the risk would be greater if their decision in favour of sanity was to be immediately followed by the punishment of death. He thought that when a man had been convicted by a jury of his countrymen, he should be dealt with as a State prisoner, and that the State should undertake the charge of investigating the condition of his mind. When the visiting justices certified that a prisoner had become insane, commissioners should be sent to call such witnesses as they deemed fit, and upon their report the Secretary of State should act, without any responsibility attaching to him. The mode which he should propose in a subsequent amendment, of sending three commissioners, not more than one of whom should be of the Medical Profession, was better than that of a jury, which was suggested in the amendment of his hon. friend. He begged to move the omission of the word "death" in line 12 of the clause.

Mr. Neate suggested that it should rest with the governor of the gaol, as well as the visiting justices, to put the machinery of the law in motion. In many respects the governor was a better person to exercise the power than visiting justices, who were frequently selected merely on account of their near residence to the gaol. In his opinion, the law with regard to insanity was very unsatisfactory. In the eye of the law, normal and habitual insanity was no defence whatever. The question considered was, whether the prisoner was insane at the time the act was committed and in reference to the circumstances under which it was committed. The inquiry should be, not whether a prisoner had become insane since his conviction, but whether he was habitually and normally insane, which was, and ought to be, a sufficient ground to exempt him from punishment.

Mr. Macdonough approved the amendment of his hon. friend. He thought that the matter in question ought not to be committed to visiting justices, and that a commission would be a much better mode of instructing the Secretary of State. The commissioners ought not to be Medical men, but should have the power of taking the evidence of Physicians and experts if they thought necessary.

Sir G. Grey said he had considered the amendment of the hon. gentleman very carefully, but he had failed to satisfy himself that it would be an improvement. Suppose a man charged with a capital crime, but not yet put upon his trial. If the amendment were adopted, the very day before his trial he might be examined by two visiting justices and two Medical men, and the Secretary of State would be bound to act upon their report. The hon. member proposed, not that there should be a representation by the visiting justices of a prisoner's insanity, but that they should certify to the fact of his insanity. This would be the only instance in which two laymen, as distinguished from Medical men, had been proposed to be employed to certify the existence of insanity. There were cases in which two Medical men might sign, and others in which visiting justices and Medical men might jointly sign, but none in which laymen were to sign alone. To that extent the hon. gentleman proposed an innovation on the existing law, because, although the opinion of laymen in cases of insanity was of value, it ought not, in his opinion, to be entirely unconnected from that of Medical men. He had sent down a commission very much like that proposed by the hon. gentleman to inquire into Townley's case, It was composed of two laymen, members of the lunacy commission, and one Medical man, and what was the result? They produced a report which was evidently a compromise. If the present bill had then been the law, with the hon. gentleman's amendment, the certificate of this commission would have been final, the Secretary of State would have had no discretion, and he must have transferred Townley to a lunatic asylum. He thought it would be better that there should be a certificate from the visiting justices and the Medical men, and that the Secretary of State, being thus put in motion, should appoint those persons whom he thought best qualified to examine the prisoner and report to him. The course pointed out by the hon. gentleman was open to great objection, and he could not give it his assent.

Lord R. Cecil said that the right hon. gentleman, in objecting to put prisoners under sentence of death in a different position to other prisoners, had failed to notice the peculiar state of public opinion with regard to these prisoners. Among a small section of the public there was a strong opinion against the punishment of death, and that feeling was entertained so vehemently that no scruples would prevent some people who shared it from putting into work all the machinery which might exist for the purpose of saving a criminal from his fate. It was necessary, therefore, to treat the position of these prisoners as exceptional, and to take special precautions to prevent people signing their names to statements which they did not believe, for the sake of getting them off. The weak point of every such tribunal as that proposed was, that it would consist more or less of Medical men, and the Medical and legal theories of insanity entirely differed from each other. He was convinced that we should never arrive at a proper condition of the law, and never relieve the Secretary of State of the constant obloquy cast on him, except by having recourse to the ancient and tried system of trial by jury.

Mr. Neate said, that in a conversation he had had with Dr. Forbes Winslow that morning, that distinguished Physician told him that he had lately subjected three patients under his care, all hopeless and incurable lunatics, to the test laid down by Baron Martin—that they should know the nature of an offence, and the legal consequences which would flow from it, and all three of them had given such answers as would have placed their lives in jeopardy. "If you were to shoot a man with a pistol, what would be done to you?" was the question he put; and one answered that he should be hung, the second that he should be hung here, but guillotined in France, and the third said that he should be hung only that he was a lunatic. Nothing could rescue us from a continued difference between the present state of the law and common sense and humanity, but an inquiry which would reconcile all the conflicting views on the subject.

Mr. Hardy said if there was any error in the administration of justice, it was rather on the side of acquittals on the ground of insanity than improper conviction of lunatics. (Hear.) This bill should be confined to questions arising after conviction. It would be much better that Medical men should be called in as witnesses than as judges. Both theoretically and practically, the Medical man would take a very different view from what a jury or barrister would take. But what the House had practically to decide on was this, whether a man under sentence of death should be treated in the same way as a man under sentence of a few weeks' imprisonment or penal servitude. Should there not be, once for all, an investigation into his sanity, and with as little delay as possible? If a judge and jury were to be called in, it could not be done promptly enough, for the judges might be otherwise engaged. For these reasons he had come to the conclusion that it was necessary that commissioners should be sent down forthwith, and should certify to the Secretary of State. What he wished the Committee to determine now was, whether the word "death" being struck out of the clause the investigation should be by judge and jury or by a commission?

Mr. M. Smith supported the proposition of a jury. If the inquiry were not so conducted, it would be better to leave the whole responsibility to the Secretary of State.

Sir G. Grey believed that if the question of the sanity of a prisoner under sentence of death must be submitted to a jury, before whom, of course, lawyers on both sides would appear, so much delay would occur that it would become impossible to carry out the capital sentence; and he entirely agreed with the hon. and learned member for Leominster that the adoption of such a plan would only be affording the means of evading the execution of the law. With regard to the proposition before the House, he thought it was right, in the first instance, to require a solemn declaration from the visiting justices and Medical men of the insanity of the prisoner, and then the Secretary of State, on his own responsibility, which he could not shrink from, would take that course which he deemed best calculated to satisfy the requirements of the case. With

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regard to the observation that the words, "if it should appear," might mean "if it should appear to anybody," he wished to say that he believed there was no doubt that the true construction of those words was that the matter in question must appear to the persons who were to act.

Mr. Hunt wished to know whether, after the present bill was passed, the law would be in any better position than before? He did not believe the public would be satisfied if they saw the deliberate decision of judge and jury reversed by the certificate of four gentlemen, however respectable or conscientious, who had held a private hole-and-corner investigation. (Hear, hear.) The question was, whether or not the prisoner had become insane since he was tried?

Sir G. Grey: No; since he committed the crime.

Mr. Hunt demurred to that. He understood that the whole of the prisoner's career would be brought under the notice of the jury up to the time of the trial. It seemed to him that, under this bill, if a prisoner under sentence of death could only persuade the Surgeon of the gaol that he was mad, he would save his life; for the Surgeon was bound to bring the matter before the justices, and his opinion would be sure to have almost irresistible weight with the latter. As to the other Medical evidence, one of the mad-doctors would probably be called in, and he looked with great suspicion on their testimony. Dr. Winslow had based his opinion of Townley's insanity on his perverted moral sense, but in that case every great criminal must be insane. He did not desire to cast any reflection on Dr. Winslow, who was said to have refused a fee for his evidence, and who, no doubt, gave it conscientiously. The fact was, the Doctors in the department of Medical science themselves ran mad in regard to the question of insanity. He doubted whether there was a single gentleman in the House who would successfully come out of the ordeal of an examination by them, and should not like to try the experiment himself. For the sake of the Home Secretary, his duties in this matter ought to be precisely defined. He thought there ought to be a distinction between the cases of prisoners under sentence of death and those under lighter sentences, because in the former case there were much stronger motives for imposition, which demanded greater precautions. He hoped the right hon. gentleman would consent to exempt prisoners condemned to death from the operation of the bill; and, however he provided for that class, he trusted there would be a full public inquiry.

After some remarks from Sir C. O'Loghlen,

The Committee then divided, when there voted—

For the amendment	32
Against it	26
Majority	—6

The word "death" was, therefore, retained.

Mr. Hunt regretted that the important discussion which had just taken place had not occurred in the presence of a greater number of members. Considering the small majority by which it had been decided to retain the word "death" in the clause, and considering also that some of those who had voted in that majority had not heard the discussion, but had come in to vote, he would urge upon the hon. member for Truro or the hon. member for Leominster to raise the question again upon the report, in order that the House might have an opportunity of reviewing its decision.

The clause was then agreed to, as were also clauses 2, 3, and 4.

Mr. G. Langton moved the insertion of a clause, placing the charge for the maintenance of insane prisoners upon the common fund of the Union.

Sir G. Grey assented to the proposal, which was then agreed to, and the House resumed.

On the motion of Mr. Bruce, leave was given to bring in the following bills:—Bill for the amendment of the law relating to the importation of diseased cattle and unwholesome meat; and a bill to make further provision for the prevention of infectious diseases among cattle.

The bills were subsequently introduced and read a first time.

On the motion of Mr. Villiers, the select committee to inquire into the administration of the relief of the poor under the orders, rules, and regulations issued by the Poor Law Commissioners and the Poor Law Board, pursuant to the provisions of the Poor Law Amendment Act, and into the operation of the laws relating to the relief of the poor, was reappointed.

On Tuesday, February 8, a discussion on the present system of treating convicts under sentence of penal servitude, followed on a motion by Lord Salisbury for the number of that class of prisoners confined in gaols, other than Government prisons, in 1862 and 1863. The returns were ordered.

In the House of Commons, in answer to a question by Sir J. C. Jervoise, in reference to the vaccination of sheep,—

Mr. Lowe said: The experiments in vaccinating sheep concluded last Michaelmas; and I am sorry to say the result is exceedingly unsatisfactory. I am also sorry to say that the report is not yet ready to be laid before Parliament. As I am not able to produce the report, I may state its general effect. The experiments that have been made are of two kinds. One has consisted in vaccinating sheep with lymph taken from the human subject; and this has succeeded in some measure. The sheep took the disease, though in an irregular and abnormal form; but when we came to test the value of that vaccination, we found that the sheep took the virus, either by inoculation or in the natural manner, from other sheep; so that vaccination thus accomplished appears to be futile. The next plan was to inoculate cows with matter taken from sheep, in order, if possible, to produce a vaccine disease in cows, which would stand in the same relation to sheep as cow-pox does to the human subject. But we entirely failed in producing that disease; and, therefore, the result of the experiments was altogether unsatisfactory.

On the motion of Mr. S. Fitzgerald (in the absence of Mr. Arthur Mills), an address to the Crown was agreed to for a return showing the expenses occasioned by the court-martial on Lieutenant-Colonel Crawley, distinguishing the proportions to be defrayed from Imperial and Indian revenues respectively.

Mr. Hibbert called attention to the demoralising effects of public executions. He dwelt upon the arguments ordinarily urged against public executions—the disorderly assemblages they collected, the disgraceful scenes that sometimes took place on those occasions, their failure as examples upon the criminal population, and their brutalising effect upon the lower classes. He proposed that capital punishments should not be made a barbarous spectacle in public, but be inflicted as in Germany, America, and Australia. He concluded by moving for papers.

After some observations by Mr. Hadfield,

Sir G. Grey said this question had been brought before the House by a gentleman no longer a member of the House, who had brought in a bill to substitute private for public executions; but he failed to convince the House that it was safe or expedient to adopt the measure. After a passing allusion to the execution on Monday of five men—not Englishmen, but foreigners—for a barbarous murder, under circumstances which led the perpetrators to expect impunity, he contended that Mr. Hibbert was wrong in supposing that public executions had no deterring effect and that they failed as examples, and he insisted on the evils which would attend the mode of execution he had proposed to substitute for them. He hoped the House would not be induced to accede to Mr. Hibbert's views; he was not prepared to consent to any alteration of the law.

Alderman Sidney complained of the recent execution, insisting that the culprits should have been sent to the outports.

Lord H. Lennox, while he agreed with Sir G. Grey, described and animadverted upon certain disgraceful scenes at the late execution.

After a short discussion, the motion was withdrawn.

Sir G. Grey moved that the report on the Insane Prisoners Act Amendment Bill be agreed to.

Mr. Hunt said that when the bill was in committee he had stated that "Dr. Forbes Winslow had based his opinion of Townley's insanity chiefly on his extraordinarily perverted moral sense." It had been represented to him that this was not a correct statement of Dr. F. Winslow's theory of the case, which was that there was great moral obliquity in Townley, and with this a mental aberration; and, viewing these conjoint conditions, Dr. Forbes Winslow came to the conclusion that he was not of sound intellect. He (Mr. Hunt) did not see much variance between this correction and what he had himself stated, but he was anxious not, in any degree, to misrepresent Dr. Forbes Winslow to the House. He protested against moral obliquity being taken into consideration at all in estimating the sanity or insanity of a prisoner. (Hear, hear.)

The report was then agreed to.

On Wednesday, February 24, the House of Commons went into committee on the Malt for Cattle Bill. The discussion turned principally on the propriety of repealing or diminish-

ing the malt tax, and not on the scientific question of the value of malt as a cattle food.

The Insane Prisoners' Act Amendment Bill was read a third time and passed.

THE BITTERNESS OF DEATH.

The late execution of five pirates at the Old Bailey has inflicted a very painful wound on society, and has caused the propriety of capital punishment to be questioned in many a mind which heretofore acquiesced in it without suspicion. For our own parts, we hold to the doctrine that life may be taken in self-defence and in vindication of Law; hence, that war is justifiable for adequate cause, and likewise the execution of criminals who have taken or attempted to take human life. Nevertheless, there are great "searchings of heart" in the matter. Many of those who approve of the punishment of death, disapprove of public executions; and for ourselves, having once witnessed an execution in a country town, we can say, that the appalling part of the scene to us was not the death of the criminal, but the crowds of young persons of both sexes, who came trooping in from the neighbouring villages to the *Hang Fair*, as it was called, and who came to that as they would to a prize fight. To us it seems that the idea of any moral benefit to such spectators must be founded on ignorance or hypocrisy. Cruelty has its fascinations even more than lust has; and it is the gratification of the lowest animal passion, rather than the seeking a high moral lesson, which, as we affirm, animates most of the spectators at an execution, and especially the women. We will not dwell on the circumstance, that these pirates belonged to a low, uneducated, brutalised class, and one whose brutality is ingrained by the treatment they too often receive—let us hope that the next ship captain convicted of cruelty may be hanged too. But, we may remark, that the most appalling part of this horrible tragedy is not the conduct of the mob, nor the struggles of the dying, but the too faithful account which the *Times* gives of the mental agonies of the poor wretches as they were being prepared for the scaffold. Here is the true bitterness of death; here lies the fascination to the lookers-on. Of Watto, it is said that—

"He looked perfectly resigned and subdued as the hangman drew the straps and buckles rigidly around. When it was done, he asked for the turnkey who had watched over him since his conviction, and when he at once came forward, tried to shake hands with him and kiss him on the cheek. But the gaoler, almost shuddering, drew back from the salute, and then, and then only, did the wretched young man seem abashed and cast down beneath the ignominy of his position; nor did the explanation of his clergyman, that such farewells between men were not customary in England, seem at all to relieve the confusion and despondency with which he retired slowly to his cell. The next to step forth from his room was Lopez—the adviser of all the murders, the determined perpetrator of at least one—the worst-looking in countenance, and to the very moment of his death the most defiant in gesture and in bearing of them all. Not for a second did his mere swagger, if we may use such a term at such a time, impose on those accustomed to see really brave men going to their death. So unsteady was he, that every movement, even the least the hangman made to buckle the straps around him, threatened to tilt him over; his fingers were almost buckled in the way the hands were clasped together; his eyes sought every face with an anxious, dreadful glance; his lips trembled, though he tried almost incessantly to wet them with his parched tongue; but in vain. Duranno, who so cruelly assassinated the mate, was the next to come out, and he, like the two that followed him, were what are called Manilla men—that is to say, they were born in the East, and spoke indifferent Spanish. They were all, however, of the pure Tartar type—flat nosed, small eyed, with low, retreating foreheads, and heads thickly covered with masses of lank black hair, like those of the North American Indians. Duranno was the first who showed signs of fear. Watto was resigned; Lopez was defiant; but Duranno seemed blanched by his fear to a dull clayey hue, that was worse to look upon than the pallor of death itself. Still, though his lips kept shivering, and his eyes reeled, he seemed to bear up till the hangman removed the sailor's necktie, and undid the collar of his shirt. Then the death that was so near seemed to come upon him in all its bitterness, and he crept together with his limbs, and spoke a few words, in almost piteous tones, to the Roman Catholic clergyman who was with him. Blanco was even worse than this. Large beyond all the rest in stature, an overmatch for almost all the others in mere brute strength, the man who had taken the most conspicuous and relentless part in all the murders, who had struck down the mate, and boasted of having thrown him while praying for mercy into the sea, who had stabbed the captain in his sleep, and beaten the captain's brother till his very corpse was shapeless, came out from his cell as if the very agony of death was on him, so strongly did he show his fear. He seemed helpless as he was being pinioned, and sighed heavily. He, like Duranno, shuddered as his neckerchief was removed, but seemed gratified that two little copper crucifixes, which he wore round his neck, were allowed to remain. He kept trying to wet his lips with his tongue, and rolling his eyes up above him on every side, looking, as it seemed to those around, for the scaffold on which he was to die. Leone, or Lyons, as he was called, was the last to come. Without any show of fear, but with much of sorrow, he stepped into the corridor and was pinioned, looking, as he showed himself throughout, a resigned, and apparently deeply repentant man. He said that he quite admitted the justice of his punishment, but until then he had never seen how wicked his crime had been, or how deserving it was of death. All the prisoners have stated to the sheriffs since their condemnation, that they would never have been driven into mutiny and murder had they not been nearly starved and kept on a pint of water a-day while in the tropics. After such statements it seems incumbent on the owners of the ship *Flowery Land* to prove how she was victualled and watered for her voyage to China, and what was the actual provision made for the crew, almost the last of whom died yesterday.

"When they had actually come to the gibbet, Duranno and Blanco leant back faint, and the others seemed to listen with dreadful faces, now looking up to where the clang of the bell came down upon them, then glancing with quivering lips through the passage which just let in the daylight and the noise of the crowd. Scarcely a minute was thus passed when the hangman returned and hurried out with young Watto. Perhaps at the sight of his comrade in guilt thus borne away, perhaps at the sound of the mob without, Duranno turned pale and faint, and asked for water. Water and brandy both were brought, and Duranno and Blanco both drank a little of the spirit raw, and were then hurried off. Lopez was called next, but as he rose there was a half shout, half scream from the crowd outside, for Blanco, the most powerful of all the murderers, and supposed to have been the most hardened, had fainted with the rope round his neck, and was, in fact, hanging till the warders ran back to fetch a chair, in which the wretched man was propped up till the drop fell. Lopez and Leone now remained alone on the bench, Lopez careless as usual, though quiet—Leone resigned, and apparently absorbed in thought and prayer. Again Lopez was told to rise, but again there was a delay, of which he took advantage to ask for something to drink. Water was put to his mouth, but he spat it out, and turned away his head, though the feverish eagerness with which he swallowed some brandy was awful to behold. Then he rose, and as he stood hearing the bell toll his desperate spirit at last gave way, and his eyes filled with tears, which he tried in vain to raise his pinioned hands to wipe away. Then he, too, went out with a light, jaunty step, and was almost immediately followed by Leone. There was deep silence now within and without the gaol. In another instant there was a heavy sound, and all turned away, while the gibbet creaked audibly, for the five murderers hung dying side by side. There was a dreadful pause inside for a minute or two, during which all spoke in whispers, as if in a sick chamber. Then the creaking ceased, and the hangman came slouching in, and his return was taken as a sign that all was quiet now."

The common remark is, that Englishmen would have showed more "game." Even in the case of the bravest and most innocent man, some signs escape of the agony within. The unfortunate Major André, "when waiting near the gallows, evinced some nervousness, putting his foot on a stone, and rolling it, and making an effort to swallow, as if checking an hysterical affection of the throat." These, however, were but

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the slight reactions of natural infirmity, and he died praying those about him to bear witness that he met his fate like a brave man.(a)

FROM ABROAD—NEW ILLUSTRATION OF THE ANTIQUITY OF MAN—ACTION OF OXYGEN ON THE ECONOMY—M. BOUDIN'S CANDIDATURE AT THE ACADEMY OF MEDICINE.

MM. MILNE-EDWARDS and Lartet recently gave an account to the French Academy of Sciences of some interesting results as regards the antiquity of man derived from their visit to the Cave of Bruniquel, just discovered in the South of France. This natural grotto has evidently long served as the habitation of men unacquainted with the use of iron or bronze, but who possessed great skill in working bones by means of stone utensils. Within its precincts has been found an enormous quantity of the bones of reindeer, oxen, and horses, mingled with a multitude of objects of primitive industry and remains of several human skeletons. Of course, the co-existence of these objects in the same stratum is no proof in itself that man was the contemporary of the animals in question; for a convulsion of nature occurring at a period when the reindeer had ceased to inhabit temperate Europe might have brought objects of very different ages pell-mell together. But upon one of the worked bones, found at a considerable depth below the surface of the cave, were cut the outlines of the heads of a horse and of a reindeer, both perfectly distinguishable. Whatever may be the date of this sculpture, it must have been performed when the inhabitants of Bruniquel were familiar with the reindeer as a habitant of the temperate regions of Europe; and, therefore, it constitutes a proof of the existence of man in Gaul prior to its disappearance from these regions. All zoologists are agreed that such disappearance and the retreat of the reindeer to the circumpolar regions took place at an epoch anterior to historical periods; and, therefore, the Cave of Bruniquel must have been inhabited by man at an epoch prior to any of which history or tradition furnishes any account.

Having shown, in their former communication to the Academy of Sciences, that the chief effects of oxygen, employed experimentally on animals, is the production of great turgescence of the vascular system, unaccompanied by inflammation, MM. Demarquay and Leconte next relate the results of their investigations into its action upon man. In the first place, when applied locally to the surfaces of wounds, by the aid of special apparatus in caoutchouc, it induces a slight sense of heat and tingling, but no pain. After a few hours the suppuration becomes diminished in quantity and consistency, and the granulations assume a greyish colour, and seem less in size; but after the oxygen has been removed they again become red and turgescent; and if the applications be repeated for some hours at a time, several days in succession, a more or less vivid inflammation of the wound is induced. One remarkable effect of the oxygen, however, is the rapid manner in which it modifies the inflammatory or congestive redness which surrounds wounds. Through this property, the redness surrounding ulcers of the limbs, and the injection of the skin persisting after eczema, have been effectually removed. The bladder and tunica vaginalis have been injected with oxygen without inconvenience, hydrocele, in one instance, undergoing cure afterwards. The most interesting result of these researches is the action of oxygen when inhaled. The authors, their pupils, and their friends have been able to inspire a dose of from twenty to thirty litres without any inconvenience; and no accident has arisen from its use by a great number of patients during more than six months. Daily inhalations of twenty to forty litres during a month or six weeks have given rise to only a slight warmth of the fauces or chest, sometimes accompanied by a little intoxication or headache. In most persons, the pulse at first increases in number, but in some it becomes slower; and in general the inhalation is followed by an increase of strength and appetite—of the latter sometimes to a remarkable degree. Patients exhausted by prolonged disease, however, do not undergo these modifications. Those who have wounds, either recent or old, after a few days' inhalation, find them become red and turgid, and suppurating more freely. This peculiarity explains the results obtained in phthisis by Chaptal and Fourcroy. Patients arrived at the third stage of that disease at first derived great benefit from the inhalations, but the inflammatory symptoms soon becoming more intense, with abundant expectoration and more frequent cough, death followed. It may be questioned how far this would have been the issue had the oxygen been inspired at an early period of the disease. These general conclusions are arrived at by MM. Demarquay and Leconte:—1. Oxygen applied to wounds, whether recent or old, causes little pain, but ultimately gives rise to a more or less vivid reaction. 2. It may be injected into the mucous or serous cavities without ill effects. 3. It may be inhaled in doses of 20 to 40 litres at one time daily, without inducing any accident. 4. Its essential property is to increase the strength, stimulate the assimilatory powers, and develop the appetite.

The list of candidates, arranged according to merit, presented to the Paris Academy of Medicine by the Section of Hygiene, in order that a new member of this section might be chosen, gave rise to warm altercations in the secret committee of the Academy, and caused the greatest surprise out of doors. The order of the presentation was—1. M. Delpech; 2. M. Dutrouleau; 3. M. Boudin, etc. All who were aware of M. Boudin's long-continued labours in the cause of public hygiene, and Medical statistics, and geography, and which have secured him an European reputation, naturally expected to find him heading the list, and came to the conclusion that causes other than the scientific claims of the candidates must have given rise to this strange marshalling. And it turns out that a curious motive has here been in operation. M. Boudin, it seems, is a believer in some of the extraordinary pretensions of animal magnetism, and the relegation of his name to the position it occupies was intended as a mark of academical disapprobation. Great as our regret and surprise may be that a man so long habituated to the habits of exact inquiry should countenance the delusions here reprobated, we cannot but protest, in the name of the rights of free inquiry, against this species of ostracism sought to be set up. It is not denied, even by those who oppose him, that his merits as a hygienist far transcend those of any other candidate at the disposal of the Academy; and it cannot be admitted that any views he may entertain respecting magnetism can militate against his efficiency as a member of an academy, in which men of any conceivable opinion upon every possible subject appropriately find their place.

THE RIBERI PRIZE.—The Royal Academy of Medicine of Turin announces that this prize (the most magnificent in money value in existence) of 20,000 lire—nearly £1000—will be adjudged to the author of the best work, whether in manuscript or published, which has been produced during the three years from the 1st of January, 1862, to the 31st December, 1864. Any subject in Medicine and Surgery may be chosen, the preference to be given to such work as exhibits a truly important progress in Medical science. The manuscripts or books must be written in Italian, Latin, or French, and of these last two copies must be forwarded. All works, which will become the property of the Academy, are to be delivered, free of expense, to Dr. Marchiandi, Secretary to the Academy, before the 31st of December; and their authors are requested to indicate the portions to which they most particularly wish to draw the attention of the Academy.

PREVENTING THE "TURNING" OF MILK.—A simple and effectual preventive of that disagreeable occurrence, so frequent in summer, "turning" of milk, is found in the addition of one gramme (fifteen grains) of bicarbonate of soda to each litre (about a quart) of milk. This does not affect the taste of the milk, while it facilitates its digestion. It constitutes the only means of preserving the milk employed by one of the large Paris milk establishments.

(a) Irving's "Life of Washington," vol. iv., p. 158.

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SECOND IMPRESSIONS OF THE BRITISH PHARMACOPŒIA.

By A CHEMIST.

The British Pharmacopœia has now been long enough before the Profession to undergo a candid and deliberate examination, and the result is a universal feeling of intense disappointment. In the elaborate criticisms to which it has been subjected—mostly by persons who have wished to give as favourable a view of it as is consistent with the claims of scientific truth and justice—so many errors, omissions, trivialities, and other faults have been pointed out, that when looked at in its more general aspect, in relation to the interests of the healing art and its professors, and the safety of the public, we are compelled to conclude that the Medical Council will have no other course open to them than to withdraw it as speedily as possible from circulation.

The production of a Pharmacopœia has occupied the Medical Council five years—no insignificant proportion of the active life of a Practitioner; and if we attach any importance to the declaration of the preface, they entered upon their task with a feeling of solemn responsibility, even approaching to awe. To the common reader, especially to one versed in the mysteries of compilation, the difficulties which they detail with great gravity appear simply ridiculous. They speak of numerous researches in chemistry, pharmacy, and natural history, and into the value of old and new remedies, carried on with the complex machinery of a "committee;" but of any results of these researches we find but a faint trace in the work itself. All the chemistry, botany, and natural history we can discover may be found in the hand-books of these several sciences, familiar to the loosest reader; and an ordinary compiler would scarcely earn his salt who should occupy five months in putting the matter together. The law of copyright was another "cause of delay," obliging the Council to apply to the Legislature for an Act to secure it; and never was an Act granted to a corporate body more improperly. In the 444 pages of which the work consists, we defy any one to point out a single page of original matter. We are not told, however, that the Council attempted to include in the Act a prohibition under a penalty even to make a quotation. Prefixed we find ostentatiously set forth two sections of the said Act, which, let all concerned take notice, neither convey a copyright worth a farthing nor impart any legal authority to the work itself. We believe that every scrap of the Pharmacopœia may be printed, with a little acumen as to the form, without infringing the copyright. But it is not worth the trouble. There is another and a graver matter demanding attention. The Council, having expended the incredible sum of £6000 in the compilation, and willing to throw the odium of a gross act of injustice on to other shoulders, make the Lords of her Majesty's Treasury fix the price to be paid for the work; and the said Lords, knowing, as they must needs know, the *wealth* of the Profession and of chemists, have made it half-a-guinea, thus mulcting a limited although large class of somewhere about £30,000 for the benefit of a small corporate body. Why not act in a fair spirit of trading, and let a publisher take the book and charge for it in some proportion to its cost? The trick, however, it must be allowed, is an ingenious one; and we may conjecture that its author or authors may be familiar with the esoteric principles of railway boards in the halcyon days of the "railway king." We doubt if the British Legislature ever before taxed in such a manner a section of the community for the benefit of a few persons.

To turn to the book itself, as the Profession waited five tedious years for a work worthy of its reputation for learning and science, perhaps expectations were formed not having any very reasonable basis. That a corporate body framed like the Medical Council should be able to produce a work of the kind as satisfactorily as a single accomplished individual, ought not to have been expected. It would not be difficult to point out many such Physicians, Surgeons, or pharmaceutists who could have compiled a really good and unexceptionable pharmacopœia. There is an inherent incapacity in a large board to proceed with harmony in prosecuting such a task. Differences of opinion arise which are irreconcilable, except by mutual concessions fatal to the value of the results; and the more trivial the matter under discussion, the more obstinately men adhere to their private opinions. This is strikingly illustrated in the case before us. The question was mooted, whether or not any change should be introduced into the weights and measures in use in pharmacy? Numerous meetings were held and long discussions passed on this very simple and indifferent matter. The issue was, by a lucky but narrow preponderance of common sense, the adoption of imperial weights and measures,—those, in fact, used in all other arts and every branch of commerce. Even this triumph, however, must be marked by an absurdity—the abolition of the terms and signs for scruples and drachms, so useful as an abbreviation of twenty grains and sixty grains.

Finding themselves entrusted with the duty, under the Medical Act of 1858, of framing a British Pharmacopœia, the Council entered upon their task with views and an aim and purpose extremely narrow, and, as it appears, altogether erroneous. The ideal of an imperial Pharmacopœia entertained by the Profession generally was a work comprising a very complete list of substances, whether natural or artificial, employed as remedies within the limits of the British Empire, with clear and definite instructions for distinguishing the substances enumerated—either botanically or chemically; and, further, prescriptions or processes for preparing or compounding such substances in forms suited for use. To a certain extent, and in a limited degree, these purposes have been attempted; but, having no defined end in view, men often make out their deficiencies by haphazard and luck.

It has always been a subject of regret that the several Pharmacopœias of the three kingdoms were the production, not of the collected and collated experience of practical men in Ireland, Scotland, and England, but of small *coteries* in the respective Colleges. Nevertheless, we had, at least, the benefit of three sources of information. The Medical Council seem, so far as we can trace any aim in the Pharmacopœia, to have considered their business to begin and end when they had reconciled or adjusted the discrepancies and differences of the three old Pharmacopœias.

It is quite true that it was a crying and palpable evil to have medicines, on the use of which human life often depended, and designated by the same names, of such various degrees of strength, in the three provinces, that a prescription written in London might be a dangerous poison if prepared in Edinburgh or Dublin. But the redress and removal of this perilous discrepancy was but one, and that, perhaps, not the most important, purpose of an imperial work. In our opinion, this narrow and mistaken primary aim of the Council has vitiated the whole work.

For whom, and to what use is the British Pharmacopœia intended? We cannot discover. To take the most limited view of it, should we not anticipate that it would contain the desired account of remedial agents employed in their practice by the Physicians of the metropolis? In reality, it notices little more than half of them. On examining the files of prescriptions at the establishment of a pharmaceutical chemist, at the west-end of town, where, if anywhere, the practice of the leading Physicians will be represented, nearly 40 per cent. contained ingredients not found in the Pharmacopœia.

In the crowded eastern, southern, and northern districts and suburbs, we will venture to assert the proportion of substances in daily use, not noticed in the Pharmacopœia, will be found far greater.

If we further consider the provinces, colonies, and dependencies of the British Empire, we must conclude that this pretentious work scarcely contains one-third of the known remedies employed in the treatment of diseases.

The Medical Council have taken a very low estimate indeed of the resources of the healing art. We are familiar with a general scepticism respecting the power and efficacy of medicines professed by many persons; but we will venture to say it is by those whose experience is very limited, and that those who are daily brought into contact with disease and suffering, and are called upon to treat any considerable number of patients, entertain no such doubts. We have reason to believe the members of the Council are not sceptics. It may, perhaps, be an error on the other side, but we hold it to be more philosophical to assert, that the healing art will not reach the perfection of which it is susceptible until the action of every substance, whether produced by nature or art, upon the human constitution is accurately known.

Botanists tell us there are 200,000 species of plants recognised and described. The British Pharmacopœia enumerates 126 whence material is derived for the treatment of diseases. Of these, about forty are either common articles of diet—wheat, barley, raisins, etc.; flavouring matter—lavender, dill, cinna-

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mon; or merely colouring substances—sandal wood, the red poppy, and the like, leaving about eighty-six plants as being, according to the Medical Council, the total amount of substances useful as remedies to be derived from the whole vegetable kingdom. We cannot object to this if they are all of which they know the use; but how partial a guide is the Pharmacopœia, and how little claim can it have as a legally-authorised exponent of therapeutics!

In the recently-issued Pharmacopœia of the United States of America, the number of plants laid under contribution for remedies is 258. In seeking for the causes of this strange discrepancy between the two works, we cannot discover any essential difference in the physiological and pathological doctrines professed in the two countries; but we find a very palpable difference in the manner in which the respective Pharmacopœias were compiled. The United States' Pharmacopœia is revised every ten years by a committee of delegates from, not only the Colleges, but all the societies existing for the promotion and intercommunication of Medical knowledge. In the intervals, a standing committee of Practitioners and pharmaceutists receive, from any person and every quarter, information of new discoveries or improved processes for preparing medicines. They appear to examine and sift thoroughly and carefully testimonies respecting alleged remedial virtues of plants and artificially-prepared substances, and, when the evidence in their favour preponderates, admit them into the official list. We well know how easily mistakes are made on this subject—how apt men are to believe, on slight and insufficient grounds, they have discovered valuable remedies—and how necessary it is to bring to the test of repeated experience, in different hands, in various places, and many times, facts advanced by individuals.

If, in a decennial revision of a pharmacopœia, there are not found many things to admit, a few to reject, and alterations of processes to be described, the science of therapeutics must be indeed stagnant. The last editions of the Edinburgh, Dublin, and London Pharmacopœias bear the dates respectively of 1841, 1850, and 1851—the most recent being thirteen years', the oldest twenty-three years' old. What, then, has been accomplished in these long periods? If represented by the British Pharmacopœia, we find (confining our remarks at present to the vegetable kingdom) eight new plants introduced—Arnica, Bael, Bebeeru, Cusso, Kamela, Santonica, Pomegranate, and Podophyllum.

Four of the eight are considered to be remedies for tapeworm. Without much research, probably twenty substances might have been enumerated with an equal claim to the same properties.

Of Bebeeru, and its alkaloid Beberia, it may be observed that it was long ago introduced as an antiperiodic—as a substitute for quinia. Its nauseous taste and uncertain action has long since almost banished it from practice; and a long list of antiperiodics might be given, for the power of which far more testimony could be adduced than for this plant. On the medicinal virtues of Arnica, the evidence is most conflicting: whilst some say, "The sovereignest thing on earth for an inward bruise" is Arnica, others dispute this, and maintain that all its alleged effects are due to the spirit of wine—the vehicle of the tincture.

The only plant of indisputable value which the Medical Council recognise as a contribution to the list of therapeutic agents during twenty-three years, is Podophyllum. It is the introduction of Podophyllum, and the retention of several old remedies which are almost, if not altogether, abandoned in practice, which encourages the hope expressed above, that the Council is not wholly composed of Medical sceptics. But we naturally inquire if the action of Podophyllum as a chologogue is recognised, why exclude other plants extensively in use, and having a reputation for a similar action—Iris Versicolor, Leptandra Virginica? If the Prunus Laurocerasus is worthy of adoption from the Ph. Edin. as a natural source of amygdaline transformable into prussic acid, why not Prunus Virginiana? Why reject Cimicifuga Racemosa, now found in every shop, and so highly commended by Dr. Simpson, the introducer of chloroform? If Digitalis remains for its action on the heart, why refuse Veratrum Viride? The physiological action of this last is powerful, definite, and constant, and we have witnessed beneficial results in enlarged heart, with dropsy, from its careful use, which nothing else could possibly have effected. Lactuca has been ejected, apparently on the vague and unsatisfactory statement of Dr. Garrod, that he had tried it in coughs without benefit. We ask in what coughs? Because the testimony of Dr. Duncan, supported by numbers of Medical men and verified by popular opinion, proves that in *some* coughs it is an effective and most valuable calmative. Professor Donovan considers hyoscyamus to be almost, if not altogether, inert. The truth is, that all so-called narcotics, soporifics, sedatives—except Opium and its alkaloids—have special actions; and a careful discrimination of symptoms, and choice of the right calmative agent, enables us to relieve suffering with promptness and certainty. We need more vegetable calmatives; and he would render a great service to practical therapeutics who would extend our list, and discriminate the special applications of each. Again, the Pharmacopœia has one parturient—Ergot, but in practice many are recognised. And thus we might proceed; but space would fail us to expose the omissions and shortcomings of the British Pharmacopœia as compared with the information really possessed by British Practitioners.

(To be continued.)

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
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THE MEDICAL HISTORY OF STAFFORD.

The town of Stafford is presumed by some historians to have been originally built on an island. Plott, who, in the year 1676, published a very quaint and amusing volume, called the "History of Stafford," now an extremely rare book, gives a classical account of the "beginnings" of the town. In the narrative there is probably a nucleus of truth mixed with a more than common measure of amusing traditional fiction. The island on which the town was raised was anciently, he tells us, called Bethnei.

"It began first to be inhabited by St. Bertelline, the son of the king of this country (Kenred, King of Mercia), about the year 705 A.D. Bertelline was scholar to St. Guthlac, with whom he tarried until his death; after which, although now unknown to his father, he begged this island of him, where he led a hermit's life for divers years, till disturbed by some who envied his happiness, when he removed into some desert mountainous places, where he ended his life, leaving Bethnei to others, who afterwards built it, and called it Stafford, there being a shallow place in the river hereabout that could easily be passed by the help of a *staff* only."

Plott adds that the first castle was built by Elfreda, daughter of Alfred the Great, Queen of Mercia. She built the castle on the north of the river Sow, about the year 916. The present castle was built afterwards by Ranulf, or Ralph, the first Earl of Stafford.

We trace no other satisfactory account of the history of the town until the time of the Conquest; then we find it to be a large place, with a castle, burgesses, and bailiffs. William, with his well-known predilections for Norman rule, gave command of the castle to one of his followers, Robert de Toner, and added thereto a barony, which remained until the reign of Richard III., when it ceased for the time, with the political martyrdom of Humphrey de Stafford, Duke of Buckingham.

Like all other towns of importance, Stafford was originally fortified, and entrance to it was only possible by the usual four gates. During the Parliamentary wars in May of the year 1643, the fortifications were destroyed by Sir William Brereton, and an order was issued on December 22nd of the same year for the demolition of the castle. Modern Stafford may be said to have risen from that period; for after that the walls were never rebuilt, and the town extended untrammelled by fortifications, gateway, or moat. There is still, at a distance of about one mile from the town, an unfinished castle, recently founded on the ruins of that destroyed by the Parliamentary army, and forming a very conspicuous object, not wanting in effect. The district in which the town stands is low and damp; and a river, the Sow, runs near the town. During the months of winter, and after heavy falls of rain, the whole town is often flooded, and sometimes it remains so for eight or ten days; but the water soon disappears when the overflow ceases.

The appearance of the town is not inviting. The entire absence of any systematic plan of drainage leading to open drains in every street, the dull and narrow character of the streets themselves, the presence, in the main street, of two or three thoroughly old-fashioned English houses, with their overhanging, carved, and peaked frontages, and the true unartistic modern brick house, tend to give a motley character of old

and good, and new and bad architecture, which is singularly striking.

If any sanitarian exquisite wishes specially to be confounded in his notions of modern progress and civilisation, he should go to Stafford on a very wet day, when a cattle fair is being holden. He can get the account of the fair from any almanack, and he may perchance obtain a prophecy of the weather from the clerk of that department, Admiral Fitzroy. I, for one, had the felicity, without any previous inquiry, of dropping into the town at the fortunate moment, —a pelting wet day, a cattle fair, no drainage, and no market-place for penning the lowing herds! It was a sight not to be seen without remembrance; the streets and pavements were actually monopolised by the bovines. The animals stood with their noses at the doors of the houses, as though they had knocked, had sent in their cards, and were only waiting for the order to walk upstairs. Fighting my way down a quiet street, tacking sometimes to the bow and sometimes to the stern of the impediments in the way, and going on tiptoe the while, to avoid other consequences, I met Pepper's Ghost (which had been figuring the night before at the "Lyceum"), borne along in agony by the smallest possible boy, who, for reasons best known to himself, had the largest cross of sticking-plaster I ever saw in my life on the bridge of his nose. The ghost evidently was astounded, and unhappy; it was only 125 miles from its own home in the Polytechnic, still the change was too much for it. It would have vanished, but its bearer, of the Excelsior type, held it too firmly, and carried it straightway towards the gaol, whither it seemed to enter, and appeared no more. Joking apart, it is absolutely sickening to see the town of Stafford on a cattle fair day; it is physically and positively unwholesome; and how the respectable inhabitants can tolerate having their door-steps turned into sale-blocks, and their pavements into manure heaps, is incomprehensible.

A good trade is carried on at Stafford, the chief manufacture being shoe-making. This last-named branch of industry has long been the "staple" of the town; and a good story relating to it is told of Sheridan, who was in his day member for Stafford. At one of his election dinners he gave as a toast, "May the manufactures of Stafford be trodden under foot by all the world." Within the last year, factories for the shoe trade have been introduced, and sewing machines; and, as a result, the process of working in private houses at the "stall" has greatly declined. The change has led to some curious modifications in the health of the operatives, of which more in the proper place. In addition to the shoe business, the hat-making business is a rather important branch; once, indeed, this department of industry was first on the list, but of late it has declined. Strikes amongst the operatives are exceedingly common in the town, and are often sustained for long periods, leading to great privation and distress. The frequent recurrence of these strikes has led to the detriment of the Stafford trade, and to the establishment of centres of industry in other towns. Worse still even, the manufacturers located in Stafford have been led to open extensive branches in other places, simply because they dare not trust to their own operatives for the sudden or urgent accomplishment of large orders. The number of shoemakers in Stafford over 20 years of age, in the year 1861, was 1546 males, and 434 females.

THE STAFFORD COUNTY INFIRMARY.

The Stafford County Infirmary was completed in the year 1766. It is a plain building, with a straight frontage, and is three stories high, exclusive of the basement. It is situated at the northern extremity of the town, and faces the east. At the back is a garden,—which has recently been well-arranged, for the use of the convalescents, by the House-Surgeon, Mr. Greaves,—and, beyond, meadow lands, through which runs the river Sow. The meadow lands enclose large beds of peat, and are often extensively flooded. The external appearance of the building is plain and heavy, and its position is not promising. The walls are of brick. On the left side or wing a fever Hospital is attached; this fever department is connected with the general Hospital by a passage in the basement.

Internal Arrangements.

The number of wards for ordinary cases in the general Hospital is twelve; seven of these are for male, and five for female cases. There are two large day wards, for the use of patients who can leave their beds and sit up during the day; and two wards, one for males, another for females, set apart specially for accidents. As a general rule, the Medical and the Surgical cases are separated and classified. In the fever house there are four wards, two for males and two for females. The Hospital, altogether, is capable of holding 120 beds; and two extra rooms, called the "chapel wards," can be used at times when there is great demand for admissions.

The cubic space is, nominally, very limited, viz., 800 cubic feet per bed. It is to be observed, however, that the full complement of patients is rarely in the house, seventy being about the average; hence the cubic space *actually* allowed, per patient, is liberal—not less, probably, than 1500 cubic feet.

The ventilation of the Hospital is imperfect. In the original construction an attempt was made at an artificial system of ventilation. Around the wards at the upper part—behind, in fact, the cornice—there was constructed a small horizontal shaft, having openings into the wards, and communicating on each side of the chimney with ascending shafts, which passed upwards with, or by the side of, the chimney, but not communicating with it by any opening. In practice, this attempt at ventilation has proved a failure, the air showing a tendency to descend into the ward, instead of making its escape upwards and outwards, as was intended. The result is, that in most cases the openings into the wards are closed up, and ventilation by the window is alone depended on. This, too, is not possibly effective, seeing that the position and construction of the windows do not allow of the direct transit of air across the wards. In nearly every instance when I was passing through the Hospital, there was a close, musty, characteristic, bad-air-Hospital odour. In ventilating, the windows are opened from above. The *warming* is everywhere carried out by means of open fire-grates. The grates are badly constructed, and are so fixed, that the radiation of heat into the wards must needs be extremely limited, and the useless loss of fuel considerable.

Water is abundantly furnished to the whole of the building by the action of a steam-engine.

The cleaning of the floors is by the dry process, and as the floor-boards are of oak, this method of cleansing answers well. Washing and wet scrubbing of floors is performed not more than three times a-year; for the rest, dry rubbing and bees'-wax polish suffices. There cannot be a doubt that, by this plan, much trouble is saved and much annoyance; but it is not, after all, without its disadvantages. In the first place, the waxed floor is exceedingly slippery, and some practice in walking upon it is necessary before the proceeding is safe. To patients who are not strong or steady on their limbs, this is naturally a great drawback. In the next place, as I learned from Mr. Greaves, there is this objection to the polished floor, in the Surgical wards particularly, that blood or other similar fluid falling on the floor leaves a deep, dirty stain, for the removal of which it is necessary to wash the spot with water, to scrub, and to repolish. For this reason, in the Surgical wards, on one floor on the men's side, as well as in the accident wards, Mr. Greaves has introduced the method—first applied, I believe, in England in the Northampton Infirmary—of washing the floors, and afterwards of polishing them with hot Calais sand and the brush. The floor, very cleanly polished, is thus left free from danger and trouble. It is not slippery, but, on the contrary, gives a good hold to the feet, while it shows no deep stain when blood or dark fluids are spilt upon it.

The walls of the Hospital within are painted, shoulder high, of a light-brown, or rather, pale lead-colour; above that they are limewashed. This obtains throughout—except in the fever wards, some of which are painted green; ornamentation, art in any shape there is none—not a picture, not a flower. In the corridor of the fever wards there is a trellis-work for plants, and in summer, I believe, some plants are trained over it, but this is all. To meet the eyes of the sick there are a few of the ordinary Hospital bills,—admonitions, confessions, promises, —which, however good in their way and intention, do but surfeit and nauseate when carried beyond reason: no picture, no flower, and no colours but white and brown. To lie for weeks in that gloom would surely of itself be worse suffering than that arising from diseases, under a happier sky.

The bedsteads are of iron, and there are no curtains, except in two of the wards, where light head curtains are permitted. The bedding consists of a straw mattress and a horsehair mattress. The horsehair, when it is dirty, is cleaned and used again; the straw is destroyed when it is considered unwholesome; the tick is purified, and new straw is introduced.

Diet of the Hospital.

The diet of the Hospital is explained in the subjoined table. It will be seen that a liberal proportion of plain food is allowed, and that alcoholics are excluded altogether. The quantity of tea

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is excessive, and can hardly be found to answer in every case. Why, in the dietaries of Hospitals, coffee should be excluded is one of those curious and absurd conventional usages for which it is impossible to assign a reason. Think of a quart of tea a-day for an anæmic girl, hysterical, sleepless, flatulent, always ready for a good cry, and within an ace of becoming a medium! A quart of tea a-day for her! Poor Quashee, it's too bad by two halves.

Staffordshire General Infirmary Diet Table.

Meals.	Full.	Ordinary.	Milk.	Low.	Extra Diet.
Breakfast.....	1 pint of tea, with ½ pint of milk.	1 pint of tea, with ½ pint of milk.	1 pint of tea, with ½ pint of milk.	1 pint of tea, with ½ pint of milk.	1 pint of tea, with ½ pint of milk.
Dinner	5 oz. of meat. ½ lb. of potatoes.	3 oz. of meat. 1 pint of broth, with vegetables. ½ lb. of potatoes.	Two days 1½ pint of rice milk. Two days 12 oz. of pudding. Three days ½ lb. of bread pudding, or 12 oz. of rice pudding.	1 pint of broth, and 6 oz. of rice or bread pudding.	
Tea, at 4 p.m...	Tea, 1 pint, with milk (for women).	Tea, 1 pint, with milk (for women).	1 pint of tea, with milk.	1 pint of tea, with milk.	1 pint of tea, with milk.
Supper	Milk and gruel (alternate nights).	Milk and gruel (alternate nights).	½ pint of milk.	1 pint of gruel.	½ pint of milk.
Daily allowance to each Patient	1 pint of tea (for men). 2 pints of tea (for women). 12 oz. of bread. 5 oz. of meat. ½ lb. of potatoes. ½ lb. of butter (per week).	1 pint of tea (for men). 2 pints of tea (for women). 12 oz. of bread. 1 pint of broth, with vegetables. 3 oz. of meat. ½ lb. of potatoes. ½ lb. of butter (per week).	12 oz. of bread. 2 pints of tea. 1½ pint of milk. Rice. ½ lb. of butter (per week).	2 pints of tea. 12 oz. of bread. 1 pint of broth, and 6 oz. of rice or bread pudding. ½ lb. of butter (per week).	2 pints of tea. 12 oz. of bread. 1 pint of milk. ½ lb. of butter (per week).

The meat to be roast four days, and boiled three days (Sunday to be one of the boiled).
Extras to be specially ordered:—Arrowroot, mutton chops, beef-tea, fish, eggs, egg pudding, jelly, porter, ale and beer, wine, or spirits.
Each Patient, on admission, to be placed on ordinary diet until a diet is ordered by the Physician or Surgeon.

I cannot omit to notice a defect in the management of this Hospital of a singular kind, considering the position of the town of Stafford. The patients are made to drink all their gruels, soups, and similar liquids from metallic vessels, made of tin or of tinned iron. To the stranger the use of these vessels appears both slovenly and unwholesome; it is impossible to keep cups and basins of the kind properly clean, and there is a commonness about the proceeding which is pitiable. Is it possible that at the door of the potteries of England, and, I may say, of the world, many years will have to pass away before the governors of a Hospital for the sick will allow earthenware to replace base metals on the invalid's table? On the ground of expense, there can be no kind of hesitation; so that the explanation of the existing fact must be, that there is want of thought, and its attendant, a bad economy.

Use of Alcoholics.

I have pointed out that in the ordinary dietary of the Hospital there is no allowance of any alcoholic fluid; but as an extra, alcohol in any form can be ordered by the Medical staff. Practically, this plan is found to answer well wherever it is tried; and, as it saves an immense sum annually, it is gaining favour amongst the governing bodies of Hospitals generally. In the Stafford Hospital, during the year 1863, the total value of alcoholics consumed amounted only to £148 5s.; the items being, for beer, £61 2s.; for porter, £25; and for wines and spirits, £62 5s. The number of patients admitted in the year was 586, and the average duration of each patient in Hospital may be taken as of five weeks' duration. The result is that, of beer and porter, at a cost of twopence a pint, the average amount allowed per patient is half a pint a day; while the amount of wine and spirits must be less than the third of an ounce. In matter of temperance, the Stafford Hospital is superior to that of Lynn; and the fact is still more remarkable when it is remembered that there are four wards in the former for the reception of cases of fever, and in the latter not a solitary fever bed.

Rules for Admission of Patients.

For every guinea subscribed annually, or for every twenty guineas subscribed as a donation, a subscriber or benefactor is entitled to recommend one in-patient and two out-patients (or six out-patients) within the year; subscribers of half a guinea are entitled to recommend two out-patients annually.

All persons who recommend patients having no parochial settlement in the county are considered responsible to the charity for any expenses which may be unavoidably incurred in burying such patients in case of death, or in their removal after being discharged. This rule is peculiar to the Stafford Hospital.

No patient is admitted into the Infirmary whose case may be equally relieved, with regard to advice and medicines, as an out-patient.

Fever patients are admitted on any day of the week, and are charged as in-patients against the privilege of the person who recommends them. All persons entitled to recommend patients are at liberty to send fever patients into the Infirmary at any time upon payment of one guinea with each; and the same permission is given to unions and parishes subscribing, on the payment of three guineas by the former and one guinea and a-half by the latter, with every such patient.

No patients with sore legs are admitted unless the examining Surgeon considers there is a probability of their being cured, or decidedly relieved, in two months. No woman far advanced in pregnancy, no child under seven years of age (except in extraordinary cases), no lunatic, no person having convulsive fits, or suffering solely from itch, or any complaint that is judged incurable, or in a dying condition, is admitted as an in-patient; or, if inadvertently admitted, is suffered to continue.

Cost of Each Patient.

In the year 1863 patients to the number of 596 were admitted into the Hospital, the daily average being 51¾. The number of out-patients was 1179. After dividing fairly the expenses for drugs amongst *all* the patients (in and out), and deducting these expenses from the out-patients, the cost of each in-patient (every item of Hospital expenditure being taken in) averaged about £4 3s. 9d. per case. But in this calculation is included the large sum of £486 8s. 11d. for repairs of Hospital, furniture, stationery, etc., which, although necessarily incidental to every establishment, cannot properly be understood as defining the actual average expenditure of each patient. The amount for repairs deducted, the average cost of each in-patient is reduced to the sum of £2 19s. 9¼d. during the year 1863. The average cost of each out-patient in 1863 was 2s. 11¼d.. Economy in Hospital management could not, I think, proceed further; and the authorities may point to the fact as some excuse for the internal condition of their institution.

PRACTICE OF THE HOSPITAL.

Prevailing Diseases of the Hospital.

Acute diseases are rarely admitted. On the Physician's side, scrofula, Bright's disease of the kidneys, phthisis, rheumatic affections, and anæmia are common. Ague is now scarcely ever met with, but neuralgia is exceedingly prevalent; it is, in fact, the leading Medical disease. Chest affections of the chronic type, other than consumption, are prevalent. On the Surgical side the diseases are also, in the main, of the chronic form. Cases of stone are exceedingly rare—so rare, that lithotomy is practised not more than once in three years.

Bronchocele, which here is classed as a Surgical disease, is common.

OPERATIONS.

The statistics of operations performed in the Hospital were very imperfectly kept until the last two years. In that period, however, Mr. Greaves has tabulated them carefully, with the results. The number of operations performed annually amounts to about forty, but only twenty of these are capital operations. This is a fair average of operations for the past five years.

CHLOROFORM.

The administration of chloroform is entrusted to the House-Surgeon, who attends exclusively to the effects of the narcotic. The method of administration is very simple: a pad of lint is fixed on a small sheet of gutta-percha sheeting. The chloroform is poured on the lint, and the sheet is held obliquely over the nose, so that the patient obtains a full supply of air from beneath. Narcotisation is induced rather slowly. The above has been the plan adopted in nearly every case; but, for a short time, Snow's inhaler was brought into requisition; it soon, however, fell into disfavour, as too complicated and cumbersome. No death has ever occurred from chloroform in the Stafford Hospital. The number of administrations have been at least 750.

MORTALITY.

By Dr. Farr's method of calculation, in the year 1861 the general mortality of the Hospital was at the rate of 36·36 per cent., a mortality extremely low, when compared with other Hospitals—the Royal Infirmary at Manchester, for instance, where it was 130·69 per cent. In the year 1863, on the same basis of calculation, the mortality has been greater than in 1861—viz., 47·00 per cent..

The Surgical mortality has of late years been very low. At one time pyæmia and erysipelas were severe, and caused many deaths, but they have not appeared recently. In the years 1862-1863, the following capital operations were performed with the results named:—

Operations from April 3, 1862, to September 11, 1863.

Sex.	Age.	Operation.	Result.
Male	45	Excision of upper jaw.	Recovered.
Male.	25	Amputation of leg.	Recovered.
Male.	19	Amputation of part of foot.	Recovered.
Male.	60	Removal of steatomatous tumour of head.	Recovered.
Male.	48	Amputation of leg.	Recovered.
Male.	21	Amputation of arm near shoulder after accident.	Recovered.
Female.	40	Cancer of breast.	Recovered.
Male.	18	Amputation of leg after accident.	Died.
Female.	11	Excision of elbow-joint.	Recovered.
Male.	45	Amputation of foot (Chopart).	Recovered.
Male.	9	Amputation of leg.	Recovered.
Male.	22	Amputation of foot (Pirigof).	Recovered.
Male.	44	Removal of lower lip; cancer.	Recovered.
Female.	50	Amputation of breast.	Recovered.
Female.	47	Amputation of breast.	Recovered.
Male.	68	Amputation of fore-arm after accident.	Recovered.
Female.	28	Excision of knee-joint.	Recovered.
Female.	29	Amputation of thigh.	Recovered.
Female.	26	Amputation of part of hand.	Recovered.
Female.	28	Removal of loose cartilage from knee-joint.	Recovered.
Male.	35	Amputation of one leg after compound comminuted fracture of both legs.	Death from shock (immediate).
Male.	57	Removal of large tumour from knee-joint.	Recovered.

This mortality after Surgical operations is most satisfactory. In the two cases that ended fatally, the deaths could hardly be attributed to the operations, for in both instances there was no rallying from the shock of the accidents; but, including these cases, the mortality is only 9·09 per cent. The success may be accounted for by the absence of epidemics, the large allowance of air, the small number of operations performed, the impossibility of contagion from dissecting-room poison, and the very temperate use of alcoholics. I shall dwell at greater length on this subject of mortality in my next paper.

(To be continued.)

PROPOSED NEW HOSPITAL FOR THE NORTH-EAST OF LONDON.—A meeting of influential gentlemen residing in this district was held at the residence of Dr. Grainger Tandy, of Spital-square, on Thursday week, for the purpose of promoting the above object; the Rev. T. S. Evans, Vicar of Shoreditch, in the chair. The necessity of such an institution was clearly demonstrated—there being no Hospital provision for a district containing 300,000 or 400,000 inhabitants. Resolutions were adopted declaratory of these facts, and pledging the meeting to establish such a Hospital, and a committee formed for carrying out the objects of the meeting.

REVIEWS.

On Australasian Climates, and their Influence in the Prevention and Arrest of Pulmonary Consumption. By S. DOUGAN BIRD, M.D., L.R.C.P.L., Physician to the Benevolent Asylum, Melbourne, etc., etc. London: Longmans. 1863. 8vo. Pp. 165.

A PHYSICIAN who is able to tell us a history of mortal disease arrested in his own person, and hope restored when it had apparently taken final leave of him, has a strong claim to be heard when he relates the means by which this was effected, and may be effected for other sufferers. Nor will the reader who takes up Dr. Bird's book with this feeling experience the sense of disappointment and disgust which often awaits the student who has opened a work with a promising title, only to find that its contents do not justify the author's prefatory flourishes.

Dr. Bird's personal experience is interesting; for consumption had declared itself unquestionably in his case by profuse hæmoptysis, rapid wasting of flesh, and alterations of the respiratory sounds, which were pronounced on high authority to be certainly indicative of tubercle. European travel having failed to do more than arrest the most troublesome symptoms, a voyage to Australia was tried, and "in six months the patient gained sixteen pounds in weight, lost all his symptoms, and remains at the present time in excellent health;" that is, more than two years from this favourable change in his condition. Encouraged by this result, and by many others of a similar character which he has seen follow the adoption of Australia as a residence by phthisical patients, Dr. Bird proceeds to analyse the causes of this apparently favourable influence of the climate.

The work commences with a chapter on the "Principles of Modern Treatment in Phthisis," which, though simple and brief, contains the pith of all that can be said upon the general question. The author justly remarks, that with regard to that item of treatment which consists in change of climate, a narrow and partial view is too often taken by Physicians—namely, the view which regards such change merely as a means of escaping from the severity of an English winter. If nothing more than this is to be effected by foreign travel, but little can be expected from it beyond the delay of the fatal issue of consumption; for it is, in fact, but the treatment of symptoms. What is required is, an alteration in the whole regimen, and in all the habits—in the physical and the moral atmosphere. To take but one of the greatest physical desiderata for a cure—free and thorough oxygenation—that is a condition nowhere to be obtained in perfection but in places exposed either to the upper layers of the atmosphere, as mountain countries, or to the winds sweeping from the sea, as in places not too far removed from the shore, or upon the sea itself. But mountain air has often far too irritant a quality to suit the delicacy of the phthisical patient; to live upon the sea perpetually is not convenient; while the various European littorals have many objectionable points. The Western coast of Europe, and our islands in particular, are exposed to the influences of the Gulf stream, which brings with it masses of warm vapour, that condense to fog and rain, and thus deprive us, to a large extent, of the physical and moral benefits of sunlight. The Mediterranean coasts of France, on the other hand, have an often intolerably dry and irritating atmosphere. Italy, in its northern portion, is exposed in winter to rain, fogs, and keen, irritating winds: in its southern portion the climate is constantly relaxing and depressing: and what may be said of Italy may be said in general terms of Greece. One European littoral there is—the eastern seaboard of Spain—which, from its mild, equable, and marine, but, at the same time, sunny and bracing climate, is a perfect winter residence; but this is ineligible in summer from the oppressive heats; and the same remarks apply to Syria, Egypt, and Algeria. Such, briefly, is the case theoretically made out against Europe, physically considered. On the part of the Australian continent, it is urged, that its coasts offer conditions of climate which ensure the constant ozonation of their atmosphere in a high degree; while, at the same time, it must contain sufficient moisture, for the prevailing winds are those that sweep over a vast expanse of ocean. And, on the other hand, the absence of high mountain ranges prevents the defect of gloomy, clouded skies. The *mean yearly temperature* of Melbourne is about the same as that of Montpellier, Marseilles, Nice, Pau, Genoa, and Florence, but *the mean range of the seasons* is far less than in these localities.

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Dr. Bird urges, therefore, that the consumptive European who determines to seek health in Australia will have the double benefit of a long sea-voyage—itself a powerful remedial agent—and of arriving, at its termination, in a country whose climate is the best suited of any in the world for his permanent re-establishment in health. He adds several considerations which are highly important. The complete severance, necessarily for a long period, from the business cares which are left behind in England; the youthful "hopefulness" which is the prevailing feature of the marvellous colony to which he goes—a hopefulness which is inherent both in its natural scenery and in the character of its thriving population; and last, not least, the *homeish* look of things, so soothing and cheering to all invalids—all these cannot fail to aid most materially in the work of cure.

But all theoretical arguments to prove that Australia *ought to be* an eligible residence for a phthisical patient are of insignificant importance in comparison with the facts adduced by Dr. Bird to prove that it actually *is so*: these last are far more striking than we were prepared to find them. "In short (to put the matter in the author's words), seven persons die of consumption here (in Melbourne and its suburbs), while twenty die in England out of every hundred (of the total mortality), though we are far more liable to the disease as regards *age* and *sex*, and equally so as regards *race* and *occupation*." And if the whole colony of Victoria be taken into consideration, the probability is, that not more than 5 or 4·5 per cent. of the whole mortality is due to consumption. The author attributes this extremely favourable result not only to the sunny, dry, and exhilarating atmosphere, but to the rapidity and completeness with which the vital processes are performed under its stimulating influence, and the large appetite for food thus created, which the prosperity of the colony permits its inhabitants to satisfy.

Zymotic diseases, principally manifesting themselves during the hot season, appear to be the scourge of Melbourne; and the author states confidently, that the entire absence of drainage is almost entirely to blame for this source of mortality. If this be the case, as seems *à priori* likely enough, it would seem that the mortality of Melbourne ought, as soon as this nuisance is done away with, to sink to a pitch extraordinarily low in the conditions of city life. Endemic disease, on the other hand, is but slightly prevalent in Australia, owing to the dry and ozoniferous character of the air.

Such is the gist of Dr. Bird's more important observations: for all matters of detail, as to the different parts of Australia which are appropriate to different classes of patients, and as to the sort of cases for which the moist climate of New Zealand is preferable, we refer our readers to the work itself. They will also find interesting details of the arrest of tubercular disease, even when suffering had proceeded to a considerable length, in several cases, under the influence of the invigorating climate of Australia.

There may be, as Dr. Bird himself confesses, some shade of partiality in the warmth with which he speaks of the benefits of an Australian residence to phthisical patients. Nothing, however, can destroy the value of the positive statistical facts which he adduces; and he is entitled to our thanks for having opened up the subject of Australasian climates in their Medical bearings more fully than it has yet been done. Moreover, the book is pleasantly, even elegantly, written; and it is a real *édition de luxe* to such readers as love a clear type, a not too bulky volume, and a variety of topics, lightly and pleasantly touched upon, to relieve the more serious subject-matter of a scientific work. Above all, a certain air of common sense in dealing with pathological questions, not too common, unhappily, among writers upon these subjects, has struck us as distinguishing the book in a high degree. We recommend it to the study of every member of our Profession.

POOR DOCTORS.—"As to medicines and Medical attendance, is it likely that the one underpaid doctor can, out of his salary, provide the various medicines that are required for his patients? All who visit workhouses know well how frequently the 'house medicine' and the 'house pill' are made to do duty for many different ailments, and how the chronic and supposed incurable cases are left to take care of themselves. That the workhouses are in reality our Hospitals for incurables, is a fact that ought to be continually impressed upon the public mind, because it is not as yet realised, and few ask the question, what becomes of all the thousands who are annually discharged from our Hospitals."—*Journal of the Workhouse Visiting Society.*

GENERAL CORRESPONDENCE.

POOR-LAW MEDICAL REFORM.

LETTER FROM MR. RICHARD GRIFFIN.

[To the Editor of the Medical Times and Gazette.]

SIR,—I shall feel obliged for space for the annexed letter, which will inform the Poor-law Medical officers that the select committee on poor relief have been reappointed, and now I trust we shall have such resolutions passed as will induce Parliament to amend the laws relating to the Medical relief of the poor. Since last July I have only received the following subscriptions:—W. Smith, Bromsgrove, 5s.; C. C. Claremont, St. Pancras, 10s. 6d.; W. H. Pilkington, Blackburn, £1; Medical officers, Rotherham, £1. I need scarcely say, that having already expended over £20 more than I have received, it cannot be expected of me to take any very active measures unless the Poor-law Medical officers will come forward in the same liberal manner which they did some three or four years since. The select committee must, I feel sure, recommend something; but a mere recommendation will do nothing unless we place ourselves in a position to compel its being carried out. You are probably aware that a milk-and-water superannuation bill has been put in circulation amongst the guardians by the Poor-law Board; and although it is only a permissive, and not a compulsory measure, the guardians have in many unions objected to it, and so they will to any bill that may be sent them; therefore, if the Poor-law Board desire to shelve a measure, they have only to send it to the guardians for their opinion, and the affair is at once settled. The registrars throughout the kingdom have lately been in correspondence, and are endeavouring to obtain one shilling for each vaccination registration instead of the threepence now paid. I wish them success; but I think when their measure comes forward we ought to get a clause inserted that our one shilling and sixpence for vaccination should be increased; but, unless we have a fund in hand of at least £100, we can do nothing.

I am, &c. RICHARD GRIFFIN.

12, Royal-terrace, Weymouth, February 23.

"12, Royal-terrace, Weymouth, Feb. 22, 1864.

"Sir,—I have the honour to forward you, by railway, evidence on the Medical relief of the poor, supported by an extensive series of tables, which I respectfully beg you will lay before the select committee on poor relief, which, I perceive by the newspapers, has been re-appointed. The evidence which I now submit to the notice of the committee will, I feel confident, convince them that the evidence laid by me before them in 1861 is substantially correct, and that the evidence of Mr. Cane in April, 1862, in respect thereof, is most incorrect, and tends to conclusions which, if uncontradicted, must mislead the committee, and prevent them coming to a right decision on the question. I will give you an instance of the errors committed by Mr. Cane, who says:—'In 1858 there were 3307 Medical officers, and in 1861, 3479;' whereas at this moment there are not more than 3102, or thereabouts, Mr. Cane having confounded the Medical districts and appointments with officers.

"Mr. Cane says (3887):—'In 1840 the Medical relief was £151,781, and in 1861, £238,222.' (3839.) 'It has been constantly and largely increasing up to last year;' but he omits to inform the committee that, since 1840, the area and population of the places brought into account has largely increased, and that, in reality, the main increase in the payment arises from the formation of new unions, and the addition of extra parochial places to the old unions, parishes, and incorporations. Mr. Cane has thought fit to impugn my figures, but I can assure the committee they are, in the main, correct. A few places, no doubt, are erroneously spelt,—Retford, for instance—which Mr. Cane has most unfairly commented on, although he must have known the place referred to was Thetford; for, had I meant Retford, I should have called it by its right name—East Retford—and not have dropped part of the name, as Mr. Cane has done. These quotations will prove how little his evidence is to be relied on. I, therefore, respectfully trust the select committee will admit my evidence in refutation of that of Mr. Cane's, not only in justice to myself, but to the large body of Medical officers I have the honour to represent, and, I may add, in justice to the poor; for I feel confident that if the reforms advocated by me, be fairly carried

out, much good will accrue to the poor, and ultimate benefit to the ratepayers. There is one point I wish should be brought before the committee, which is, the establishment of dispensaries in all populous places, and that the drugs should be found by the Poor-law Board; and in thinly-populated places, where Dispensaries could not be established, an allowance—say 2s. per case—should be paid to the Medical officers for drugs. In payment, I would advise that the money now voted by Parliament for half the salaries should be applied to this purpose, the guardians being compelled to pay a sum not less than 2s. per case in towns as salary, with mileage in addition in country places.

"I have the honour to be, Sir,
"Your most obedient servant,
"RICHARD GRIFFIN.

"The Right Hon. C. P. Villiers, M.P., Chairman Select Committee Poor Relief."

HOSPITAL MORTALITY.

LETTER FROM DR. W. FARR.

[To the Editor of the Medical Times and Gazette.]

SIR,—The subjoined extract from the appendix to the Registrar-General's Twenty-fourth Report, expresses briefly the results of some of the information which has been collected at the General Register Office respecting Hospitals.

Dr. Bristowe will see that I agree with him when he says that the question whether Hospitals, and especially large Hospitals, "benefit mankind directly," deserves "the fullest investigation."

In my opinion the skill of country Practitioners, and the fame of the Medical officers of county Hospitals is underrated in London, and I speak from seven years' experience in country, London, and Paris Hospitals. But with all the admitted advantages which patients derive from the Medical skill of the large London Hospitals, is the mortality of the same class of cases lower in their wards than in the wards of small Hospitals, and in the cottages and lodgings of the poor? Dr. Bristowe, I have been informed, is engaged officially on an inquiry into the subject, and will, I have no doubt, do his utmost to conduct it with skill, care, and impartiality, so as to "test" the assertion, that sanitary condition has no influence on Hospital cases. Dr. Murchison's facts will necessarily rivet his attention.

I regret to find that Miss Nightingale's Anonymous Critic and I still differ as to the true method of deducing the rate of mortality; and that even after your skilful diversion and defence which followed my letter—giving an advantage to his cause of two to one—his wrath is still raging too angrily to justify me in attempting to reason with him. My letter is "confused," "violent," "a queer composition;" and the method of dividing the deaths by the bed-population of Hospitals is "an arithmetical flight of fancy," "a gross misuse of figures," leading to conclusions which he "utterly disbelieves!" This style of argument does not appear to require any reply. And as a method of mathematical demonstration, that of Euclid is preferable.

After all, reviewers are mortals like ourselves, who, for the moment, occupy the calm seats of judges, against whose decisions any one has, with your permission, the right to appeal to the supreme court which your readers constitute; and who, I must add, will only have the whole case fairly before them, when they have read Miss Nightingale's book as well as its reviewer's article. I am, &c.

February 20. W. FARR.

EXTRACT FROM DR. FARR'S LETTER TO THE REGISTRAR-GENERAL.—APPENDIX TO REGISTRAR-GENERAL'S TWENTY-FOURTH REPORT.

"*Public Institutions.*

"The great majority of the people of England live in detached dwellings; and a certain number reside in barracks, asylums, workhouses, Hospitals, lunatic asylums, and prisons, or in public institutions, as they have been called, of various kinds.

"The mortality of the inmates of some of these institutions is, for various reasons, much above the average; so the inmates having been returned at the Census, it was thought right to pick out the principal institutions in which the mortality was likely to be so great as to affect the mortality of the sub-district in which the institution is situated.

"The list has been compiled on this principle, and does not include a great number of institutions of various kinds. It includes all the principal Hospitals and workhouses.

"The Commissioners in Lunacy, the Inspectors of Prisons, and the Poor-law Commissioners publish in their annual reports accounts of the respective institutions which come under their cognisance. The statistics of the Hospitals of the country are not given at all, or are not given upon a uniform plan. Miss Nightingale, who perceived all the importance of this information, suggested that the Hospital statistics should be collected in forms, of which the members of the Statistical Congress in London approved;(a) and if the Hospital boards carry out the plan, they will place the Hospital statistics on a level with those of the other institutions of the country.

"*Table XIV.—England: Public Institutions.*

England.	Number of Inmates on April 8, 1861.	Deaths in the year 1861.			Annual Rate of Mortality per Cent.
		Persons.	Males.	Females.	
In 853 Public Institutions	154,602	32,437	19,137	13,300	20·98
,, 690 Workhouses, .	119,984	22,785	12,822	9,963	18·99
,, 106 Hospitals . .	12,709	7,227	4,950	2,277	56·87
,, 57 Lunatic Asylums.	21,909	2,425	1,365	1,060	11·07

"The number of institutions in the Table XIV. is 853, which held 154,602 inmates on the day of the Census, exclusive of the officers and servants. 32,437 inmates died in the year; and, assuming that the average is represented by the enumerated population, the mortality was at the rate of 20·98 per cent., or 210 per 1000; while the mortality of the population of all England was at the rate of 22 in 1000, or 2·163 per cent.

"The mortality in these institutions was ten times as high as the mortality in the population generally.

"The annual rate of mortality in the lunatic asylums was at the rate of 11 per cent.; in the workhouses, 19 per cent.; and in the Hospitals, 57 per cent.

"With respect to Hospitals, then, while the annual mortality of the general population was 2·16 per cent., the mortality of their inmates was at the rate of 56·87 per cent., or 26 times as high. The inmates of Hospitals are, it is scarcely necessary to say, all suffering from diseases which tend, generally, to increase the risk of death.

"The Hospitals are filled by a succession of inmates, who remain for a time varying from a day to a month, or a year; and the mortality is often given as so many deaths per cent. on the cases treated. The mean term of treatment varies in different Hospitals; in many it averages 36·5 days, or the tenth part of a year. Assuming that term of treatment to be applicable, the mortality of the cases in these Hospitals was 5·687 per cent. in 36·5 days; or the Hospitals, to every 100 beds occupied, had nearly 57 deaths annually.

"Hospitals enable the charity of the country to supply the sick with skilful Medical advice upon the cheapest terms, and this has led to the establishment of the institution upon the voluntary principle in every county. An eminent Physician or a Surgeon can visit his patients in a short time as they lie in the same or in contiguous wards; and he often consents to attend them without any fee or salary. The collection of the sick under one roof conduces also to economy in the nursing department, in the kitchen as well as domestic service, and in the pharmacy, as the drugs can be purchased and dispensed at a cheap rate. A resident Medical officer can attend to all the urgent cases.

"*Table XV.—Principal General Hospitals in England and Wales*, 1861. *(Special Hospitals are excluded from this Table.)*

	Number of Hospitals.	Inmates.	Average Number of Inmates in each Hospital.	Deaths.	Mortality per Cent.
Total Hospitals .	80	8535	107	6220	72·88
Hospitals containing—					
300 inmates & upwards	5	2090	418	2101	100·53
200 and under 300 .	4	913	239	888	91·78
100 and under 200 .	22	2898	132	2041	70·43
Under 100 . . .	49	2634	54	1240	47·08

"The cost of the building is generally so great as to make the lodging much dearer than the best cottage accommodation.

(a) English Programme of International Congress, pp. 68-65. See also Report of the Proceedings.

"One great evil has often counterbalanced all the advantages. The collection of a number of persons, exceeding those of an ordinary family, under one roof, has hitherto always had a tendency to increase the dangers of disease; for several diseases are, like fire and ferments, diffusible. The danger is increased when all the inmates are sick, for their breath and excretions spread through the wards. The dangers, too, are likely to increase in a faster ratio than the numbers, and the patients are less likely to recover health in the sickly atmosphere of a large building in a city than in pure country air.

"These institutions were, accordingly, at one time, infested by Hospital gangrene, and by erysipelas; the lying-in Hospitals were depopulated by fever (metria); infants perished by hundreds in the Foundling Hospitals; and even in the present day patients often die of Hospital pyæmia, so frustrating the hopes of the skilful Surgeon.

"It must be stated that nothing can scarcely be worse than the ventilation and all the arrangements of the old Hospitals.

"The classes of cases which are admitted into particular Hospitals, and the reasons for which patients are discharged, differ largely, so that the investigation of the effects of Hospital air, and of treatment in the various establishments, requires great care and skill. It is so important, however, that it should be undertaken for the sake of the sick, and for the sake of Medical science.

"A careful comparison of the duration and of the rate of mortality of certain well-defined diseases in Hospitals and in private practice would settle the question.

"In the meantime, it is evident from the tables that the mortality of the sick who are treated in the large general Hospitals of large towns is twice as great as the mortality of the sick who are treated in small Hospitals in small towns.

"It remains to be seen whether the mortality in small Hospitals is not twice as great as the mortality of the same diseases in patients who are treated in clean cottages.

"Should this turn out to be the case, the means of realising the advantages of the Hospital system, without its disadvantages, will then be sought and probably found, as the problem is not insoluble."

THE NEW COUNTY HOSPITAL AT WINCHESTER.

[To the Editor of the Medical Times and Gazette.]

SIR,—Your last number contains a letter on the subject of the above-named Hospital. The plans for the new building are therein said to have been concocted by three personages,—1. "Miss Nightingale;" 2. "An architect named Butterfield;" 3. "A domineering baronet of the neighbourhood." Permit me to say a few words in reply.

1. The lady alone is treated leniently. Her only crime appears to be that of forming one of such a wicked triumvirate.

2. The architect is criticised in most slashing style. He is described as "only known to the writer as a defacer of fine old churches, and a builder of ugly new ones." He is charged with "never having built a Hospital before," and, worse than all, with giving a "strictly ecclesiastical character to the design."

On the first count opinions may differ. A writer in the *Times*, a few years ago, stated that Mr. Butterfield's work showed more original genius in design than that of any other architect of the day.

On the second count, it must be remembered that Hospitals, not being as plentiful as churches, have not yet attracted a special class of architects. I am not aware that the more recently built Hospitals are so perfect in their arrangements as to give their architects a pre-eminent claim to employment in the erection of new ones.

On the third count, I venture to offer the opinion, that, if a religious tone can be given to our Hospitals, without the sacrifice of important features (among which cheerfulness should be included), a great point would be gained. Nor am I frightened at the prospect of the nurses becoming converted into sisters of charity in consequence of the "conventual effect" of their dormitories. In short, I believe that if the internal arrangements of the projected Hospital are nearly as perfect as are the internal arrangements of Mr. Butterfield's churches, the county of Hampshire will have good reason to be proud of their Hospital, notwithstanding the epithet of the "streaky-bacon style" applied to its exterior.

3. The baronet fares but little better than the architect. If a landowner happens to take an intense interest in a county charity, and devotes much time, labour, and acumen in mastering its details and requirements, it is probable he may acquire some influence with his neighbours. Even if a would-be manager of the charity should call him "domineering," he could afford to put up with the abuse. And probably he would be forgiven if, in the exercise of his judgment, he slighted the opinion of disappointed persons, or of the "careless one" who signs himself "Epicuri de Grege Porcus."

I am, &c. F.R.C.S.

THE RELATIVE MORTALITY IN LONDON AND COUNTRY HOSPITALS.

LETTER FROM MR. T. HOLMES.

[To the Editor of the Medical Times and Gazette.]

SIR,—Dr. Richardson, in some communications which he made to your Journal on January 9 and on January 16, relative to the Norfolk and Norwich Hospital, and which are intended as the commencement of a "Medical History of England," made the following statements:—

1. That the average mortality after cases of lithotomy in metropolitan Hospitals is 50 per cent. or more.—See your number for January 9, p. 42.

2. That the difference between this rate and the rate of mortality after the same class of cases in the Norwich Hospital (calculated at one in seven, or say 15 per cent.) is due to the difference in the air of London and Norwich.—*Ibid.*, p. 43.

3. That the rate of mortality over all the Surgical cases in the Norwich Hospital in 1862 was 2·5 per cent.—*Med. Times*, January 16, p. 67.

4. That only one case of pyæmia had been registered in that Hospital during the last seven years.—*Ibid.*, p. 67.

The first statement was disputed by Mr. Thompson in a letter published in your number for January 16. To this letter Dr. Richardson promised to return an answer after he had finished his series of papers on Norwich and Lynn; though, as the statement was a merely arithmetical one, and must have been based on some document, which could as easily have been produced in five minutes as in five weeks, it is difficult to see why he should not have answered Mr. Thompson at once. At any rate, Dr. Richardson's papers on the above subject came to an end last week, and still no evidence of the truth of this statement is produced.

In the same number I called in question both the two first statements of Dr. Richardson; but to this letter of mine no answer has appeared, and no evidence has been adduced in support of Dr. Richardson's opinion on the subject. It is peculiarly important that such evidence, if it exists, should be produced at the present time in relation to the very serious question which is now pending before the Court of Chancery, with reference to the new site of St. Thomas's Hospital—a question on which Dr. Richardson is known to have given evidence, embodying the views which he propounded in his paper on the Norwich Hospital. Now, if Dr. Richardson is convinced that these views are correct, he ought, in justice to the numerous Medical witnesses on the other side who think otherwise, to produce the facts on which alone such views can be supported; and, if his data are impugned, he ought not to delay the attempt to verify them until this important question shall have been settled. If, on the other hand, Dr. Richardson is convinced that he was mistaken in his facts, and hasty in his inferences, it is hardly candid in him to put himself before the Profession as supporting opinions which he knew to be erroneous.

As to Dr. Richardson's third and fourth statements quoted above, I believe he is in possession of evidence, based on documents from the Hospital itself, proving to him that they misrepresent the facts of the case.

I think, therefore, that we, who are interested in discovering the truth on this important question of the relative salubrity of town and country Hospitals, in order to apply it to the practical business of the day, have a right to ask Dr. Richardson to state distinctly whether he adheres to the four statements which I have quoted above. I am, &c. T. HOLMES.

22, Queen-street, Mayfair, London, W., February 20.

P.S.—I had written the above when my attention was called to a letter, signed "M.D.," and inserted in small type at the end of your paper of to-day's date, to which I may, perhaps, be allowed to say a few words in reply, though neither its matter nor manner render it much worth an answer. Allow me, in the first place, to disclaim any zeal about the "good repute" of my brethren in London. The question is

merely one of facts, and cannot in any manner touch anybody's reputation, unless it could be shown (what Dr. Richardson, certainly, never asserted) that the excess of mortality which he alleged to take place in London is caused by errors of practice—an assertion destructive of his whole line of argument, which is intended to show that the alleged difference is caused by the air of London. The sentence which your correspondent professes not to understand is, surely, very simple. Country Hospitals receive a different class of cases on the Medical side, chiefly because they exclude infectious diseases; while all the large metropolitan general Hospitals, except the London Hospital, receive them; and, on the Surgical side, because acute Surgical cases and grave accidents are more rare. Of course, in speaking of "country Hospitals," I could not be supposed to have such an institution as the Leeds Infirmary in view, nor any of the other Hospitals of great manufacturing cities, which are not country Hospitals in any sense of the term, and where the Surgical cases are usually as acute as at metropolitan Hospitals, while the nature of the Medical cases varies, according to the regulations of the Hospital. In saying that the cases received at a country Hospital are of quite a different kind from those received at a London Hospital, I am merely stating a fact which I thought was notorious, but which can, at least, be easily verified by any one who will take the trouble of doing so. I do not, of course, mean, as your correspondent represents, that individual cases of Surgical injury are different in London and the country; but that cases of disease or injury, which in London would be considered too chronic or too trivial to give a title to admission, are received in great numbers at country Infirmaries, and that it is to this fact that the difference in the death-rates is mainly due. In saying that the Hospitals in London "receive a more severe class of cases, and treat them with a success little inferior to that obtained in the milder cases treated in country Hospitals," I was thinking chiefly of operative cases, especially amputations. I believe that in Hospitals in rural districts the injuries for which amputation is performed are generally of a less severe nature, the diseases are more generally of the chronic type, and the patients are, as a rule, more healthy and less dissipated. I think that I can adduce reasonably strong grounds for each of these assertions, and those grounds will very shortly be laid before the Profession. But, if I am in error, I shall be very glad to be convinced of it. It is a mere question of fact, rather difficult to settle from the evidence before us, and in which no one's feelings need be in the least concerned. I have not intended to speak disrespectfully of Dr. Richardson; and, if I characterised his assertion about lithotomy in London as an "enormous error," it was merely because I know of no other term to describe what I believe to be a misstatement of an arithmetical proposition in the ratio of more than 3 to 1.

OBITUARY.

DR. HEADLAM.

Dr. Headlam, M.D., uncle of the Right Hon. T. E. Headlam, M.P., Judge Advocate-General, died at Newcastle-upon-Tyne on the 18th, in the eighty-sixth year of his age. His death is attributed entirely to his advanced years, as he expired without any disease, and in full possession of his faculties. He was a native of Gateshead, practised with great success in early life in the north of England as a Physician, and took an active part in the social and political reforms of the country up to within a few years of his death. He was early appointed a justice of the peace for the borough of Newcastle, and was twice elected mayor for that town, once in 1838, and again in 1846.

University College Hospital.—Mr. Charles Dickens has consented to preside at the annual dinner of this institution, announced to be held at Willis's Rooms on an early day in April.

Consumption of Vichy Water.—The consumption of this alkaline water has assumed in France, and especially in Paris, gigantic proportions. In 1863, there were despatched from Vichy 1,460,000 bottles; and 180,000 baths were administered. Paris alone received 900,000 bottles. Since the 18th January, the public has been allowed free access to these as to the other Medical waters in France, without the intervention of Medical Inspectors of Mineral Waters heretofore necessary.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, February 18, 1864:—

Edward Carpenter, St. Thomas's Hospital.

The following gentlemen, also on the same day, passed their First Examination:—

Griffith Griffith, University College; George William Rigden, University College; William Bell, King's College; Edmund Farrington Boult, King's College; M. S. W. Wilson, King's College; Alexander Clement Rayner, Charing-cross Hospital; Francis Henry Wickham Taylor, St. Thomas's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Absolom, George W., M.D. Edin., has been appointed Visiting Surge to the Perth County and City Infirmary.

Allen, F. C., L.D.S.R.C.S. Eng., has been elected Surgeon-Dentist to the West Kent General Hospital, Maidstone.

Bull, Henry G., M.D. Edin., has been appointed Physician to the Hereford General Infirmary.

Hall, Cornelius S., M.R.C.S. Eng., has been appointed Surgeon to the Carlisle Dispensary.

Hemming, Charles, M.D. St. And., has been elected Coroner for the Borough of Abingdon.

Hicks, Robert, M.R.C.S. Eng., has been appointed Surgeon to the Seamen's Infirmary, Ramsgate.

Kellett, Edward, M.D. Edin., has been re-elected Medical Officer for the Workhouse of the Kells Union, Meath.

Lyell, H., M.R.C.S. Eng., has been elected Medical Officer for St. Olave's Union, Southwark.

Maclagan, Thomas J., M.D., has been appointed Medical Superintendent of the Dundee Royal Infirmary.

Mason, Thomas P., M.B. Lond., has been elected Physician to Mercer's Hospital, Dublin.

Reed, S. Cartwright, M.D., has been elected Medical Officer to the South District of the West London Union.

Ryan, Richard S., L.R.C.P. Edin., has been elected Second Medical Officer for the Workhouse of the Callan Union, Co. Kilkenny.

DEATHS.

Davis, Henry Robert, M.D. Edin., at 12, Addison-road North, Nottinghill, W., on February 16.

Fraser, J. T., M.D., Assistant-Surgeon Madras Establishment, at Malacca, on January 3.

Granger, Frederic, M.B. Cantab., at Musgrave-place, Exeter, on January 4, aged 73.

Headlam, Thomas E., M.D. Edin., at Newcastle-on-Tyne, on February 18, aged 86.

Innes, John S., L.R.C.S. Edin., at Garnfach, Nantyglo, Monmouthshire, on December 20, aged 47.

Lucas, T., M.D., J.P., at Rochford Town, Co. Cork, on January 22, aged 75.

Martin, G. M., Surgeon, at Spennymoor, Durham, on December 12, aged 38.

Mather, Mathew, M.D. Glasg., at Annfield-place, Glasgow, on December 25.

Nathan, Lewis H., M.R.C.S. Eng., of Great Ducie-street, Strangeways, Manchester, on January 17, aged 65.

Nicolle, Dr., at St. Martin's, Jersey, recently.

O'Brien, George W., M.D. Glasg., of Bellevue, Ennis, Ireland, on December 2.

Rose, Dr. Henry, the distinguished Professor of Analytical Chemistry at the University of Berlin, died on January 28, in the 68th year of his age. He produced more than 200 memoirs on inorganic chemistry; and his "Treatise on Chemical Analysis" went through six editions, and was frequently translated.

Shorland, Thomas, L.S.A., of High-street, Alderney, on December 18.

University Intelligence.—Cambridge, February 22, 1864. An examination for four minor scholarships will be held in Downing College on Monday, May 30 next, and the two following days, and will begin at 9 a.m. on Monday. The examination will be chiefly in classics and elementary mathematics, but some weight will be given to proficiency in French and German. Two additional papers will be set, one on moral philosophy in connexion with the principles of Jurisprudence, the other on the elements of the natural sciences in connexion with Medicine; and in awarding two of these scholarships considerable importance will be attached to any special proficiency in the legal or in the Medical subject. Foundation scholars will, by the same examination, be elected from among the undergraduates of the College. Persons who have not been entered at any College in the University, or who have not resided one entire term in any such College, are eligible to these minor scholarships, which will be of the

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value of £40 per annum, and tenable for two years, or until their holders are elected to foundation scholarships. No one elected minor scholar will receive any emoluments until he has commenced residence as a student of the College. Satisfactory testimonials as to their moral character must be sent to the master by all candidates for these minor scholarships, on or before Wednesday, May 25.

THE BRITISH PHARMACOPŒIA.—By some singular misadventure, one of the sheets in some of the copies of the British Pharmacopœia (sheet T, pp. 273—288) has been wrongly printed, so that the pages do not run consecutively. It is not a mere wrong folding or paging, but a misprinting, that nothing but cancelling the sheet can rectify.

THE MUSEUM OF THE LATE PROFESSOR SCHROEDER VAN DER KOLK.—We regret to learn that, owing to a fresh domestic affliction, necessitating a change of family arrangements, the splendid physiological, pathological, and ethnological museum of the late Professor Schroeder Van der Kolk will be disposed of much below its value. We have before us a *résumé* in Latin of the detailed catalogue belonging to the museum, and from this list it appears that this important collection, the result of the life-long labour of a master, contains, exclusively of the ethnological section, 770 pathological, and 337 physiological specimens. Respecting the nature, condition, etc., of the collection, we extract the following from a notice in French prefixed by the editors, Professors P. Harting and G. J. Loncq, of the University of Utrecht, to the list just mentioned: "The most interesting part consists of long series of pathological preparations of the different organs of the human body, which are so complementary one to the other, as to represent the different phases of the same disease. Another and smaller part is composed of physiological preparations. In the great majority the blood-vessels of both categories of preparations are injected with coloured substances. Lastly, a small number of skulls and skeletons of various nations complete the collection. Among the latter there are two skeletons of negroes which deserve special attention. All these objects are in a state of excellent preservation. With the exception of the greater part of those relating to diseases of the bones, and of a few others, the anatomical preparations are all preserved in spirit of wine." If we are rightly informed, the entire collection would be disposed of, under the circumstances, for about £500.

DANGEROUS LAMP OILS.—At the meeting of the Association of Medical Officers of Health, held on Saturday last, at the Scottish Corporation-hall, a paper was read on the recent petroleum accidents and on the ready detection of dangerous lamp oils. It was shown that these accidents had invariably resulted from the employment of oils capable of being ignited at a very low temperature, in many cases even below the standard of the Petroleum Act, one very severe accident being traced to the employment of an oil giving off inflammable vapour at a temperature below the freezing point of water. The author of the paper, Mr. Tegetmeier, exhibited a very easy and practical mode of detecting dangerous oils. Two teacupfuls of boiling water and one of cold water (at the ordinary temperature of a sitting-room) were mixed together in a small basin; a cupful of the water was then taken, and a teaspoonful of the oil to be tested poured on its surface; in a few seconds a light was applied to the oil. The dangerous oils, those capable of igniting below 128 degrees, immediately took fire, whereas it was shown to be impossible to ignite those which were of a safe and non-explosive character. In the conversation that ensued, Drs. Letheby, Lankester, and R. D. Thomson took part, and the desirability of raising the standard of the Petroleum Act from 100 to 125 degrees was discussed, many accidents, some of a fatal character, having arisen from the employment of oils having a higher inflaming point than 100 degrees Fahrenheit.

BOOKS RECEIVED.

Journal of the Workhouse Visiting Society. January, 1864. London: Longman and Co.

*** This record of a praiseworthy association notices the difficulty of combining law and charity—legal machinery to repel idleness and pauperism with kindness and sympathy. It acknowledges the underpaying of the Medical officers. Altogether it contains more subjects of interest than would be expected from its title.

Report of the Limehouse District of the Medical Officer of Health. 1863.

*** Calls attention to the excessive mortality in the eastern districts of London, which the writer refers to "more imperfect and inefficient ventilation," generating typhus, and intensifying other diseases. The western districts of the metropolis are compared with his own, and are accredited with a larger proportion of consumption, and nearly as high an infant mortality. Strangely, as it seems to us, no reference is made to the different social status of the inhabitants. The other matter is mainly of local character.

Proofs of the Non-Existence of a Specific Enthetic Disease. By David Macloughlin, M.D. London: John Churchill and Sons. 1864.

*** The writer is of opinion that "no Medical Practitioner who is acquainted with Medical science, and who respects himself, can at the bedside point out what are the pathognomonic symptoms of a primary syphilitic ulcer on the genitals, or on any other part of the body." He, therefore, addresses the Secretary of State for War, as "this so-called syphilitic disease" has never been scientifically studied by the Army Medical Department. He adopts the euphuism, "injury," for syphilis, the existence of which he denies.

The Dublin Quarterly Journal of Medical Science. February, 1864. Dublin: Fannin and Co.

*** Mr. Porter's Contributions to Operative Surgery; Notes on the Climate of the Swiss Alps, by Dr. Weber; Dr. McDonnell's Observations on Bromide of Potassium in Epilepsy; with other contributions on iridectomy, amputation at the ankle-joint, treatment of anthrax by pressure, and valuable clinical records, give great interest to this number. There is a long list of reviews and proceedings of several learned bodies, from one of which we laid an extract before our readers last week.

On the Diseases of Women. By Fleetwood Churchill, M.D. Fifth Edition. Dublin: Fannin and Co. 1864.

The Roman, or Turkish Bath. By James Lawrie, M.D. Edinburgh: Maclachlan and Stewart. 1864.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. T. E. Amyot is thanked for his note and the enclosed article.

Inquirer.—Churchill's or West's "Diseases of Women."

Dr. J. E. Smyth.—The Government Annuities Bill does not contain the proposed provision of superannuation allowance for Poor-law Medical officers.

An Appeal.—The sudden and unexpected death of Mr. W. S. Partridge, of High-street, Bordesley, Birmingham, who had honourably practised as a Surgeon in that neighbourhood for twenty-four years, leaving a widow and thirteen children almost deprived of the common necessaries of life, calls upon his numerous friends to do all in their power to alleviate their distress. With this object, a committee, composed of the undermentioned gentlemen, has been formed for the collection and receipt of subscriptions, to be applied for the benefit of the family in such a way as shall be determined upon by three trustees, to be nominated by the committee. The committee earnestly appeal to the benevolent for their assistance in carrying out the object they have in view. Subscriptions will be thankfully received by Dr. Bell Fletcher (the Treasurer), any member of the committee, by Mr. E. F. Mason, 67, New-street, Birmingham (the Honorary Secretary), at the Office of the *Daily Gazette*, or by Messrs. Attwood, Spooner, and Co.

COMMITTEE.

Dr. James Johnson, Birmingham.	Mr. Samuel Westwood, Small Heath, M.R.C.S.
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The Rev. W. H. Hill, Small Heath.	Mr. E. F. Mason.

The Alleged Neglect of Prisoners by the Government of the Southern States.—Some weeks back an account of the neglect of Federal prisoners by the South was inserted in this Journal. In contradiction of that statement the following paragraph from the *Weekly Despatch* has been sent us by a correspondent:—

"The Richmond correspondent of the *Atlanta Appeal* describes a recent visit to the Hotel de Libby. He found the passages and anterooms of the prison piled up with boxes and bales of clothing and provisions, which had just been received from the North by flag of truce. Upon ascending to the upper storeys of the building occupied by the prisoners he saw the greatest profusion of comforts and luxuries in the way of *provant* that even a riotous imagination could conceive. Hams, smoked beef, Bologna sausages hung from the rafters; tin cans of potted meat, oysters, sardines, green peas, etc., were arranged on shelving against the walls; while the finest pippins rolled along the floors. Immense packages of new publications, sets of chessmen, backgammon boxes, etc., which had apparently just been opened for distribution, proved that the Yankees did not intend their unhappy brethren should die of *ennui*. The prisoners themselves were variously occupied, some lying at full length on the floor, deeply involved in the tragic incidents of Miss Braddon's novels; others playing whist and euchre, or deeply pondering the gambits; others asleep; others again eating their dinners. Brigadier-General Niel Dow was lapping up the soup furnished by the prison cook with evident satisfaction. One man only was reading the Bible. All looked in fine health, and seemed remarkably cheerful. Major Turner informed the writer that several of the officers of the highest rank had handed him a statement, which they had voluntarily drawn up, denying in the fullest and strongest manner the infamous lies about Confederate cruelty which have recently been circulated at the North."

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Sir Wm. Browne, M.D.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Permit me to correct one error in Dr. Richardson's interesting Medical History of Lynn:—Sir William Browne, M.D., was not, as is there stated, the son of Dr. Edward Browne, nor, to the best of my belief, the grandson of Sir Thomas Browne, M.D., of Norwich. Dr. Edward Browne, who, at the time of his death—August 28, 1708—was President of the Royal College of Physicians, left but one son and one daughter; the former, Thomas Browne, M.D., a Fellow of the College of Physicians, died in 1710, aged 36, and was buried in the church of Northfleet, near Gravesend. Sir William Browne, M.D., the eccentric Physician of Lynn, was the son of a Physician, was born in the county of Durham in 1692, and would appear not to have been of the same family as the distinguished Norwich Physician, the author of the "Religio Medici."

I am, &c.

40, Finsbury-square. W. Munk, M.D., F.S.A.

The Diminution of the Maorie Race.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Having seen your observations upon Dr. Tukes' "Medical Notes on New Zealand," and your selection of his observations; and while I bear testimony to their point and correctness, you must permit me to declare that there are other and more certain causes which will lead to the destruction of the Maorie race than those mentioned by Dr. Tukes, if they are allowed to continue much longer. The great curse of the Maorie people is their tribal condition. Setting aside the injustice of the lazy and indolent sharing equally in the production of the soil and all other of God's blessings with the good and industrious—a fact that stops anything like individual improvement—there is a species of communism among the sexes which is rapidly deteriorating the race, and must eventually lead to its extinction. At almost all the native villages indiscriminate intercourse at the earliest ages is common among the boys and girls of the tribe. The natural result is that women become barren, like the prostitutes of the cities of Europe; when they grow up and are married, they have few or no children. In the earlier ages of the race illicit intercourse was punished by death; but in the present transition state of the Maorie race, the Christian dispensation affords but a moral restraint, which is ill-appreciated by the semi-savage. Hence, if the Maories continue to enjoy their tribal rights, and be independent of British rule and British precept, they must become speedily extinct.

The Maorie war which is now waging will be the saviour of the Maorie race if it ends in the removal of this tribal condition, which prevents improvement and tends to destruction,—if it places the semi-savage in the position of a British free man;—if, while it gives him all the rights and advantages, it shall make him amenable to all its duties, it will at once advance him in the scale of the human family, and give him an opportunity of improvement in every point of view. Such is the desire of the British race in New Zealand; and, should this war accomplish such a result, the improvement of the colony will be more rapid and important than ever fell to the lot of any British colony.

I am, &c. S. J. Stratford, M.R.C.S. Eng.

Auckland, New Zealand, December 4, 1863.

On Trichinæ Morbus.

BY ADOLPHE WAHLTUCH, M.D., L.R.C.P. LOND.

The Trichinæ Morbus having lately attracted the attention of the Medical Profession, as well as of the laity, it seems to me to be a matter of special importance to note all the facts which bear relation to it, and to spread the knowledge of them to the widest extent.

The tragedy of Hettstädt, where, at a dinner party, numbers, who had partaken of fresh sausages, became victims to the poison of Trichinæ, supplies us with the following striking observations:—Of those who, at dinner, used a Red-wine, the greater number of cases soon terminated fatally; of those who drank a Rhine-wine or Beer, this fatal termination was somewhat postponed; while of those who indulged in Spirits, none were affected by the disease. A similar sad catastrophe is reported from Wiesbaden, where, at a wedding-breakfast, in which about twenty persons took part, several of the guests became diseased, but recovered; whilst the young couple, whose union they were met to solemnise, soon perished from the fell effects of this poison.

Dr. Tüngel, of Hamburgh, narrates a poisoning by pork, whereby, in 1851, several persons were affected, while three of the number died. Judging from the recorded symptoms, he comes to the conclusion that these were cases of Trichinæ Morbus.

Dr. Kopp also records several cases of poisoning by sausages, which he lays down to Trichinæ Morbus from the fact, that the symptoms of disease made their appearance not before the end of the second week after the use of the suspected food, which had been but once partaken of. Fish-poison likewise deserves our attention, in so far as the sturgeon has injurious effects only if used in a raw state, and never if cooked. This statement would lead to the idea of parasites swallowed, which may live and generate symptoms of disease in the human body.

Dr. Fiedler experimented on live rabbits, and found that the migration of embryos to the muscles begins on the tenth day after their introduction into the body, that it is at the highest point on the thirteenth to the fifteenth day, but lasts to the thirtieth and the thirty-fourth day. The "incapsulation" of the Trichinæ begins towards the end of the fourth week; the "incalcination" is scarcely complete before the ninth to the twelfth month. All his therapeutical experiments had a negative result: he tried Oil of Turpentine, Glycerine, Camala, Extr. Filicis Maris, Kali Pyronitricum, Acetum Pyrolignosum,—but all in vain; all purgatives were unsuccessful. The Trichinæ die at 50° Reaum. (144½° Fahr.). Professor Langenbeck, of Hanover, found Trichinæ in the earthworm (Lumbricus terrestris); he is of opinion that the Trichina is nothing else but the well-known Ascaris minutissima. As a prophylactic measure, he advises that swine should be fed only in yards with a close, well-rammed pavement. Geese, ducks, etc., are free from the disease, as they swallow and likewise eject the earthworm whole.

In my opinion the Trichinæ seem long ago to have selected man as one of their victims, but have remained latent or unobserved by the Profession, until their ravages became wholesale massacres. The noxious influence of unsound meat and fish has been acknowledged in all ages; and Medical sanitary rules for the prevention of their use are adopted everywhere. As the Trichinæ die at a temperature not less than 144½° Fahr., I should consider it advisable totally to avoid the use of raw meat or fish, and to subject it to a higher temperature and for long enough to assure its being well-done throughout. If the Lumbricus terrestris is indeed the primitive bearer of the Trichinæ, special attention should be paid to the feeding of animals; and though it is not always possible to prevent the admixture of earthworms with their food, nevertheless a relative prophylactic measure is preferable to none at all; the very absence of success in therapeutical experiments must increase the necessity for prophylaxis.

Manchester, February 16.

COMMUNICATIONS have been received from—

Dr. Henry G. Bull; Dr. W. B. Ford; Mr. John C. Deane; Mr. C. S Hall; Dr. Graily Hewitt; Harveian Society; Dr. W. Munk; Mr. A. P. Towle; Apothecaries' Hall; Ethnological Society; C. H. C.; F.R.C.S.; Obstetrical Society of London; Dr. James J. Hardesty; Western Medical and Surgical Society of London; Mr. Timothy Holmes; Inquirer; Dr. John E. Morgan; Anthropological Society of London: Harveian Society of London; Mr. Richard Griffin; Dr. P. W. Latham; The President of the Royal College of Physicians, Edinburgh.

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 20, 1864.

BIRTHS.

Births of Boys, 1086; Girls, 1036; Total, 2122.
Average of 10 corresponding weeks, 1854-63, 1858·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	821	765	1586
Average of the ten years 1854-63	641·3	639·9	1281·2
Average corrected to increased population..	..	..	1409
Deaths of people above 90	..	..	7

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	1	..	11	2	3	6	1
North ..	618,210	6	3	11	4	12	20	1
Central ..	378,058	2	4	6	2	9	3	..
East ..	571,158	3	4	11	..	15	18	2
South ..	773,175	6	7	16	3	17	16	2
Total ..	2,803,989	20	18	55	11	56	63	6

APPOINTMENTS FOR THE WEEK.

February 27. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m. Royal Free Hospital, 1½ p.m.

Royal Institution, 3 p.m. Professor Frankland, "On the Metallic Elements."

29. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital 1½ p.m.; Samaritan Hospital, 2½ p.m.

Medical Society of London, 8½ p.m. Lettsomian Lectures on Physiology.—Lecture II.—The Evolution of Carbonic Acid by the Lungs and Skin, and other Phenomena of Expiration and Excretion, under the Influence of various Agencies. By Edward Smith, M.D., F.R.S., F.R.C.P.

Pathological Society, 8 p.m. Meeting.

March 1. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Anthropological Society of London, 8 p.m. A. R. Wallace, Esq., F.L.S., "On the Origin of the Races of Man with Reference to the Theory of Natural Selection."

Royal Institution, 3 p.m. Professor Marshall, "On Animal Life."

Royal Medical and Chirurgical Society, 8 p.m. Anniversary Meeting.

St. Mary's Hospital Medical School, 8 p.m. Dr. Grailly Hewitt, "Clinical Conference in Midwifery."

2. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m., Middlesex, 1 p.m.; London, 2 p.m.

Obstetrical Society of London, 8 p.m. Dr. Tyler Smith, "Cases of Ovariotomy;" and Papers by Mr. Squire and others.

3. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m., Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.

Harveian Society of London, 8 p.m. Mr. Weeden Cooke, "On the Tumours Affecting the Female Breast."

Royal Institution, 3 p.m. Professor Marshall, "On Animal Life."

4. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Meeting of the Council.

Royal Institution, 8 p.m. Professor Stokes, Sec.R.S., "On the Discrimination of Organic Bodies."

Western Medical and Surgical Society, 8 p.m. Practical Evening, for the Narration of Cases and the Exhibition of Specimens.

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ORIGINAL LECTURES.

LECTURES ON THE BRITISH PHARMACOPŒIA: ITS CONSTRUCTION, ITS COMPARISON WITH THE LONDON PHARMACOPŒIA, AND THE VALUE OF ITS NEW REMEDIES IN THE TREATMENT OF DISEASE.

DELIVERED AT

The Royal College of Physicians,

By A. B. GARROD, M.D., F.R.S.,

Fellow of the Royal College of Physicians; Physician to King's College Hospital.

Lecture IV., February 5.

Mr. President,—Before commencing my Lecture I will draw your attention to some fine specimens of Cannabis Indica, with its extract and tincture, also of the active principle, digitalin, which were not present on Wednesday when I was discussing the value of these substances. To-day, I shall speak of other introductions into the British Pharmacopœia, and shall first draw your attention to certain resins either obtained from drugs already officinal or newly introduced. These are,—the Resin of Jalap, the Resin of Scammony, and the Resin of Podophyllum, known more commonly at the present time as Jalapine, Scammonine, and Podophylline. Of the first I need only state that it constitutes the active part of jalap, of which it forms from 12 to 15 per cent., and hence the dose of the resin, compared with that of jalap, should be in the inverse ratio.

Scammony itself, the dried milky exudation of the root of the plant, consists chiefly of a resinous matter; in good Scammony the amount of resin should be about 80 per cent., but, as found in commerce, it is a most variable drug, from the adulterations to which it is subjected. I believe that about two tons of Scammony are annually sent to Europe, and it is the object of 2000 men in Asiatic Turkey to adulterate it in the most advantageous manner. Hence it was not uncommon to extract the resin from the Commercial Scammony, and use it in this form.

Scammony Resin is now ordered to be made from Scammony Root by means of Rectified Spirit, and when thus prepared differs in some respects from the Scammony itself, more especially in its odour. Scammony has a disagreeable, musty odour, arising probably from fermentation having taken place in the juice before becoming dry, and butyric and other acids thus formed; but the root itself, as you may perceive from the specimen, has a fragrant smell, and hence Resin prepared directly from it participates in that odour.

As to the physiological and therapeutic action of this resin, I may tell you that numerous clinical observations have been made with it both by Dr. Farre and myself, which have already been published, and the result of which was, that Scammony Resin made from the root is quite equal to the best Virgin Scammony: it was tried by itself, and likewise in combination with other purgatives, as in the compound Extract of Colocynth. Should it be practicable to ensure a supply of the root, it cannot but prove of advantage to have the Resin made in this country, as we should then be free from the possibility of its being adulterated abroad. The Mistura Scammoniæ is ordered to be made with the Resin, rubbed up with milk, and it is optional to use either the Resin or Scammony itself in the preparation of the compound Extract of Colocynth.

I should mention that the same option is extended to Confectio Scammoniæ, or Confection of Scammony, contained in the British Pharmacopœia.

The dose of Resin of Scammony is much the same as that of the best Scammony.

The third Resin is that obtained from the root of the plant called Podophyllum peltatum, belonging to the natural order *Ranunculaceæ*, and growing in North America. The characters, both of the root and Resin, will be seen in the specimens; they are fully described in the Pharmacopœia, but I have neither necessity nor time to detail them here.

This Resin, under the name of Podophylline, has of late been extensively employed in this country, and various are the opinions as to its value as a therapeutic agent. From some personal experience in its use, and from what I have been able to gather from the observations of several Physicians, I have formed the following opinion of its action:—

1. Resin of Podophyllum is a powerful purgative.

2. It often produces actions from the bowels containing abundance of biliary matter, but this is probably more from its causing an emptying of the gall bladder, than from its augmenting the secretion of this fluid. I state this from noticing the fact that when many evacuations were caused by it, the latter were rather of a serous or mucous than bilious character.

3. That it often, when administered in large doses, causes much griping and depression.

4. That it is better to give it in conjunction with other purgatives than to trust to it alone for the cathartic effect.

5. That when thus combined it assists the action of the purgative, and often enables one pill to take the place of two or more.

6. That its griping properties can be much mitigated by combination with small doses of Belladonna or Henbane Extract.

7. That it is a valuable addition to the Materia Medica, and often capable of replacing mercurials as a cholagogue purgative.

The doses of Podophyllum Resin vary from a quarter of a grain to half or even one grain.

With the exception of the changes of nomenclature in the mercurial preparations which we spoke of in our last Lecture, no extensive alterations have been made.

In the first place, the Red Sulphuret or Cinnabar, termed, in the London Pharmacopœia, Hydrargyri Bisulphuretum, has been omitted; this is used occasionally as a colouring ingredient, but chiefly for the purposes of fumigation; for the former object it is worse than useless, and for the latter, its place can be well supplied by the Red Oxide, which is more readily volatilised.

Hydrargyri Iodidum Rubrum, or the Red Iodide of Mercury, has been introduced. All I need state concerning this salt is, that it consists of single equivalents of mercury and iodine, and that its composition is represented by the symbol, HgI (the equivalent weight of mercury being taken at 100); that it stands in the same relation to the green iodide of the metal, as corrosive sublimate does to calomel; and, lastly, that an ointment of the salt, containing sixteen grains to the ounce of simple ointment, is ordered to be prepared.

The dose of the salt is from one-twelfth to a quarter of a grain, larger than that of corrosive sublimate, as the amount of mercury is much smaller, from the equivalent of iodine being so high. The ointment should be used with some caution, on account of its irritant properties.

In relation to the administration of the Iodides of Mercury, it may be well to recall to your minds the powerful influence of iodine preparations in modifying the action of mercurials, or in causing, under certain circumstances, the development of the symptoms of the metal, and probably these considerations may apply to the difference of action of the iodides when compared with other salts of the same metal.

For many years before M. Melsen had published his researches upon this subject, I had seen from time to time patients who exhibited all the symptoms of mercurialisation from the exhibition of iodide of potassium. It had also been noticed in works on Materia Medica that the iodide occasionally produces effects similar to mercury. No explanation, however, was offered of the occurrence of such symptoms. It can be shown conclusively that when mercury is administered for any length of time it becomes in part deposited in the tissues in an insoluble form. In explanation of this, it may be stated that some of the salts of this metal, as the corrosive sublimate, form a very slightly soluble compound with albumen; and there is likewise evidence that mercury at times is reduced to a metallic form within the body, occasionally giving rise to suppuration and necrosis, and it has even been found after death in the liquid state in the heads of the bones. M. Melsen has shown most conclusively that the administration of iodide of potassium to patients in whom mercury is thus retained, has the power of setting the metal free, of rendering it soluble, and thus of bringing it back into the blood, and of again inducing all the symptoms of mercurialisation.

About two years since, I had a patient under my care, in whom the power of the Iodide of Potassium in thus reinduc-

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ing mercurial action, was beautifully illustrated. The following are the details :—

A young man was admitted into the Hospital suffering from a tubercular skin affection and ulcerated throat of a syphilitic nature. He was first placed under the influence of Iodide of Potassium, commencing with five-grain doses, and afterwards increased to ten grains, and given three times a-day. No physiological symptoms were induced, and the disease did not appear to be influenced by the treatment. Calomel, in grain doses, was next administered, and full salivation was induced; and along with this both the throat and skin rapidly improved, and, after a short time, became nearly well. The Mercury was then discontinued, and the symptoms of the metal gradually subsided, and at last entirely disappeared. When we were fully assured that such was the case, Iodide of Potassium was again prescribed, in ten-grain doses; but within forty-eight hours mercurialisation had returned in such intensity that the salt had to be discontinued: with its omission, the symptoms ceased, but returned again, in a slighter degree, on the patient resuming the iodide. After a time, he was able to take the full dose with impunity, probably from the mercury having been eliminated from the body.

The simultaneous administration of mercury and iodine is productive of peculiar effects; and it is most probable that the same may occur, at least in some degree, when the Iodides of Mercury are introduced into the system.

Hydrargyri Nitratis Liquor is another introduction into the Pharmacopœia of this country. It is a strong solution of the Nitrate of Mercury—a salt corresponding to the Corrosive Sublimate, Hg,NO_5, and has been employed as a powerful caustic in cancerous affections. Its application has sometimes been followed by absorption of the metal and the production of mercurialisation: hence some care is required in its use. It is applied to the diseased part by means of a camel's hair brush.

In the preparations containing alcohol, ether, and similar bodies, some rather important alterations will be found in the British Pharmacopœia. These I will now try and explain. Rectified Spirit, Proof Spirit, Sherry Wine, and Chloroform remain practically the same as before, the term Chloroformum being substituted for Chloroformyl; Spiritus Vini Gallici, or French Brandy, is omitted; Ether is ordered of lower specific gravity—viz., 0·735, instead of 0·750—and hence it contains less spirit and water; Oleum Æthereum, or Ethereal Oil, has been omitted; and Spiritus Ætheris Nitrosi considerably modified; and lastly, Spiritus Pyroxylicus has been introduced. First, with regard to the omission of Ethereal Oil, which was supposed to form an important ingredient in Spiritus Ætheris Compositus, or the old Hoffman's Anodyne. It has been omitted, I believe, mainly for the following reasons :—

1. Although imagined to be more antispasmodic in its properties than ether, no clinical observations had proved that such was the case.

2. It is a most expensive preparation when properly prepared, and one very liable to undergo decomposition.

3. It is not only extensively adulterated, but not unfrequently other compounds are substituted for it.

Under these circumstances it was considered desirable that the ethereal oil should be altogether abandoned, and hence the former Compound Spirit of Ether is designated simply Spiritus Ætheris, and contains one part by volume of the Ether of the Pharmocopœia to two parts of Rectified Spirit.

There is only one remark needed with regard to Chloroform —namely, that a preparation, Spiritus Chloroformis, or Spirit of Chloroform, is introduced to substitute the so-called Chloric Ether so largely employed in practice at the present day. The name Chloric Ether is very erroneously applied to the preparation, as it is only a mixture of Chloroform and Rectified Spirit, and has no possible relation to the true Chloric Ether or Chloride of Ethyle, as will be seen by the formula on the board—

Chloroform—C_2H,Cl_3—Terchloride of Formyl.
Chloric Ether—C_4H_5,Cl—Chloride of Ethyl.

The so-called chloric ether hitherto employed in Medicine has varied very greatly in strength. At some establishments one part of chloroform by volume was dissolved in six parts of rectified spirit: at others the compound did not contain more than one part of chloroform in nineteen of spirit. In the British Pharmacopœia a correct nomenclature is employed, where the preparation is named Spiritus Chloroformi, and a definite composition is given—namely, one part by volume of chloroform to nineteen parts of spirit: it contains, therefore, one part in twenty. This strength was selected as yielding a preparation from which the chloroform is not precipitated, even when it is mixed with water containing much saline matter dissolved in it.

We have next to allude to the Spiritus Ætheris Nitrosi, or Spirits of Nitrous Ether, called in the London Pharmacopœia Spiritus Ætheris Nitrici. As its name indicates, it should consist of a solution of true nitrous ether in spirit, but the London preparation is in this respect very faulty. It is made by distilling a mixture of nitric acid and rectified spirit, and, as a result, we have a spirit holding in solution scarcely any nitrous ether or nitrite of ethyle, but other compounds, especially aldehyde, which, by keeping, is gradually acidified into acetic acid; it is, therefore, a preparation having but little relation to the name it bears, and probably not very potent as a remedial agent. I am assured that, as found in the shops, it often contains less than 1 per cent. of the nitrous ether. In the British Pharmacopœia a new, and, I trust, greatly improved, process has been introduced: a salt, the Nitrite of Soda, is placed in the Appendix, with the method and process for its manufacture from the nitrate of the same base; this salt is then distilled with a mixture of rectified spirit and sulphuric acid. The nitrous acid, liberated by the action of the sulphuric acid, unites directly with the ether of a portion of the alcohol, forming nitrite of ethyle, which distils over with the undecomposed spirit, and forms the Pharmacopœia compound—Ætheris Nitrosi Spiritus, or Spirit of Nitrous Ether. Tests are given in the Materia Medica to ascertain the presence of the Nitrite of Ether, and, when properly prepared, it contains between 5 and 6 per cent. of this body. We shall now, therefore, have an opportunity of ascertaining if nitrous ether possesses any well-marked valuable properties as a diuretic—a point which, hitherto, in this country, we have been unable to determine, on account of the very small amount of the compound contained in our Pharmacopœia preparation. In the formula on the board you will observe the composition of the various compounds which I have referred to in speaking of this preparation; and on the table the preparation itself.

Nitrate of Soda = NaO,NO_5.
Nitrite of Soda = NaO,NO_3.
Nitrite of Ethyle, or true Nitrous Ether = C_4H_5O,NO_3.
Aldehyde = $C_4H_4O + HO$.
Acetic Acid = $C_4H_3O_3 + HO$.

I have, lastly, to refer to the introduction of Spiritus Pyroxylicus Rectificatus, or the Rectified Pyroxylic Spirit, into the British Pharmacopœia. It is defined to be hydrated oxide of methyle, with about 10 per cent. of water, a product of the distillation of wood. Before proceeding to discuss the properties of this body, I must impress upon you the necessity of separating it in your minds entirely from the Methylated Spirit which is now so largely used in this country in manufacture, and which is not subject to the excise duty imposed on other spirit. The so-termed Methylated Alcohol is ordinary rectified spirit, to which one-fortieth of methylated alcohol has been added—an addition which is supposed to render it quite unfit for use as a beverage. It is a fact much to be regretted that some druggists have made certain Pharmacopœia preparations with this adulterated spirit, instead of the Rectified Spirit of the Pharmacopœia. The Aromatic Spirits of Ammonia, Spirits of Nitrous Ether, and even tinctures have been thus prepared. Such a practice, on every ground, cannot be too much deprecated. The Pyroxylic Spirit of the Pharmacopœia differs altogether from this—it is Wood Spirit Alcohol, free from most of the strong and nauseous compounds which contaminate the crude article employed in adulterating Rectified Spirit, and has a composition which you will observe on the board, and be enabled to compare it with ordinary or Ethylic Alcohol :—

Wood, or Methylic Alcohol—Hydrated Oxide of Methyle . . . . = $C_2H_3O + HO$.
Ethylic Alcohol—Hydrated Oxide of Ethyle . . . . . = $C_4H_5O + HO$.
By oxidation, Methylic Alcohol yields Formic Acid . . . . . = $C_2HO_3 + HO$.
By oxidation, Ethylic Alcohol yields Acetic Acid . . . . . = $C_4H_3O_3 + HO$.

On the table you will see the two bodies just alluded to, and, in addition, a specimen of Methylic Acid, which is remarkably free from impurities, and which has been recently prepared by a new process.

The question of greatest moment to us in relation to this subject is this—Has Methylic alcohol any valuable medicinal properties? It has been employed as a sedative, and has been

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asserted to be useful as such, in allaying sickness in certain forms of gastric disturbance; it has also been employed to check cough and expectoration in phthisis and bronchitis. Personally I have had but very slight experience of its efficacy, but I cannot help being strongly impressed with the idea that where it has proved efficacious its value has depended rather on the contained impurities than on the true Methylic alcohol, of which it is chiefly composed.

The impurities are usually high hydrocarbons more or less allied to creosote, and we are all aware that in some forms, both of stomach and pulmonary affections, this substance is very useful. I question (although I do so with some diffidence) whether an absolutely pure Methylic alcohol, which has no more odour than Ethylic alcohol, would be found to produce physiological or therapeutic effects appreciably differing from those of an equal quantity of common spirit. To demonstrate this, however, we must have recourse to clinical observation. I do not think I should be wrong in stating that the many reasons which exist against the employment of this substance altogether in Medicine caused some of the Committee to object greatly to its introduction into the British Pharmacopœia.

(To be continued.)

COURSE OF

LECTURES

ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D.,

Professor in University College, and Assistant-Physician to University College Hospital.

Lecture II.

(Continued from page 196.)

Influence of Disease on the Daily Excretion of Urinary Solids.

Disease exerts a marked influence over the urinary solids, its most general effect being rather to diminish than augment them. In cases of anæmia and chlorosis, for example, the diminution is sometimes very considerable. The twenty-four hours' urine of M. L., aged 30 (Hospital case), suffering from anæmia, consequent on hyper-lactation, contained—

Total Solids.		Organic.		Inorganic.	
grammes.	grains.	grammes.	grains.	grammes.	grains.
34·89	= 540·79	26·63	= 412·76	8·26	= 128·03

Lest some may suppose that in this case the diminution in the amount of urinary solids may have been due to a diminished supply of food, I shall quote another case from private practice, about which there can be no doubt. This lady was also suffering from anæmia, and being of the same size, and nearly the same age (32) as the preceding, it may be taken as a parallel case. Her diet was of the most nourishing description. Turtle, and other nutritive soups, well-cooked fresh meats, and three or four glasses of wine daily. Notwithstanding this, the twenty-four hours' urine yielded on analysis only—

Total Solids.		Organic.		Inorganic.	
grammes.	grains.	grammes.	grains.	grammes.	grains.
32·64	= 505·92	24·98	= 387·19	7·6	= 117·80

being even less than the Hospital case.

I have now to quote an example of an increase of the urinary solids as the effect of disease. The most interesting case of this kind which has fallen under my personal observation is that of a gentleman aged 43, of very high literary attainments. He had enjoyed perfect health till within eighteen months before I saw him, when, after great and continued mental exertion, he was seized with intense frontal headache, and violent palpitation of the heart; so much so, that he had to resign his appointment, and desist from all mental labour. When brought to me by Dr. King, he was suffering from other symptoms in addition to the above, the most distressing of which were, pain from the hips downwards, with shooting, burning sensations in the soles and upper part of the feet. He had also pricking, burning sensations in the wrists and hands, and to such an extent did these annoy him, that they prevented his ever enjoying a comfortable night's rest. On analysis, his twenty-four hours' urine was found to contain a very great excess of solid matter; and this, too, in spite of his taking very little food, in consequence of his suffering from dyspepsia. Under treatment, a marked diminution of the urinary solids took place, and with it a corresponding improvement in health. The twenty-four hours' urine was analysed on three separate occasions, with the following results:—

	Total Solids.		Organic.		Inorganic.	
	grammes.	grains.	grammes.	grains.	grammes.	grains.
March 19	80·67	= 1250·38	57·42	= 890·01	23·25	= 360·37
,, 31	71·61	= 1109·96	49·22	= 762·91	21·39	= 331·54
April 22	63·24	= 980·22	47·82	= 741·21	15·42	= 239·01

At the time of the last analysis the patient was very much improved.

The quantity of solids daily excreted may, in certain diseases, be far greater than even the above.

In cases of diabetes, for instance, the amount of solid matter may be enormously increased—not merely on account of the presence of sugar, but also on account of several of the urinary ingredients being augmented. Here is the analysis of the urine of a gentleman, aged 57, who suffered for six years from diabetes. I quote it, not because it is the most striking example I could give, but because it happens to be the first that has come to hand, and because I shall have afterwards to refer to the case when on the subject of treatment:—

	Total Solids.		Organic.		Inorganic.	
	grms.	grains.	grms.	grains.	grms.	grains.
24 hours' urine . .	276·21	= 4281·25	256·60	= 3977·30	19·60	= 303·80

I might go on quoting many more such examples; but these are sufficient for the present purpose. I shall, therefore, turn to the important question,—What effect have remedies in controlling the elimination of solids by the kidneys?

Effect of Remedies on the Urinary Solids.

There are certain remedies which have a powerful effect in reducing, and certain others which have an equal effect in augmenting the urinary solids. First, as regards those remedies which reduce them. Nearly all belong to the narcotic group; and the most active are opium, morphia, conia, hyoscyamus, and Indian hemp. As one and all of these, from their specific action on the nervous system, are occasionally counter-indicated, it fortunately happens that we have another group of remedies of an entirely opposite neurotic character, which also have the power of diminishing the elimination of solid matter by the kidneys. The most powerful of these, I believe, is the citrate of quinine and iron, and next to it the ammonio-citrate of iron in combination with quassia—two remedies which, as was before seen, have also the property of diminishing, in certain cases, the amount of liquid excreted by the kidneys.

Those medicines which, on the other hand, increase the solids are digitalis, atropine, and colchicum—indeed, it is possible that the chief benefit derived from the use of these remedies in certain diseases arises from this action. In gout, for example, both immediately before and during the paroxysm, the urinary solids are said to be diminished; whereas, as soon as the paroxysm begins to subside, they are said to increase, and the more rapid the increase the quicker appears to be the convalescence of the patient. Now, it so happens that both the carbonate of potash and colchicum, which, as is well known, are useful remedies in the majority of cases of gout, increase the elimination of solid matter by the kidneys.

There are yet other substances which, although not usually classed under the head of medicines, nevertheless merit our attention. These are alcohol, wine, and beer—all of which influence the daily amount of solids passed by the kidneys. Thus, Böcker found that alcohol and beer lessen the quantity, while white Rhine wine (Niersteiner) augments it. Here, then, we see that in the treatment of disease we can even select our stimulants so as to further the effects of our other remedies.

Inorganic Salts.

It must have been observed that I have hitherto spoken of the urinary solids as a whole, notwithstanding that they consist, as you are aware, of two parts, an organic and an inorganic. I have purposely done so in order to save time; for, as a rule, what influences the one influences the other. There are, however, certain exceptions to it, with which I must now make you acquainted.

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

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From the preceding tables you will have learned that the organic is usually greatly in excess of the inorganic matter; and, although this is the case at all periods of life, yet the relative proportion varies with the age. Thus, it will be seen by the subjoined table, that while a child aged eighteen months passes for every pound of its weight only one-third more organic matter than the adult, it excretes no less than three times more inorganic salts:—

Solids per lb. of Bodily Weight in Twenty-four Hours' Urine.

	Total Solids. grammes.	grains.	Organic. grammes.	grains.	Inorganic. grammes.	grains.
Girl aged 18 mths	0·58 =	8·99	0·33 =	5·11	0·24 =	3·72
Mother aged 27 yrs	0·31 =	4·80	0·23 =	3·56	0·08 =	1·24

The excess is here still seen to be in favour of the organic; and even in disease this rule holds good. There is, however, one remarkable exception to it, which, as far as I am aware, has not been noticed by other observers. And this is the more surprising, seeing that not only is the relationship altered, but actually reversed, the inorganic preponderating over the organic ingredients of the urine. The most striking illustration that I can give of this most important fact is in albuminuria, and I think that I cannot do better than quote the one cited in a memoir "On the Blood and Urine of Pregnancy," published conjointly by Gegenbaur and myself in Scanzoni's "Beiträge" for 1854. The case was that of a woman, aged thirty-nine, the analysis of whose urine yielded the following results:—

In the 24 hours' Urine.	26 days before Delivery. c. c.	oz.	14 days before Delivery. c. c.	oz.	7 days after Delivery. c. c.	oz.
Water . .	1169 =	37·7	1668 =	53·8	1792 =	57·8
	grms.	grains.	grms.	grains.	grms.	grains.
Organic solids .	16·37 =	253·73	21·67 =	335·88	27·69 =	429·19
Inorganic salts .	28·88 =	447·64	26·70 =	413·85	31·01 =	480·65

Here it is seen that the inorganic ingredients preponderated over the organic on the twenty-sixth day before delivery as seven to four, on the fourteenth day as nine to seven, and on the seventh day after delivery, when the albuminuria was already beginning to diminish, as ten to nine.

Determination of the Water and Solids.

Having ascertained the exact quantity of urine passed in the twenty-four hours, we can form a rough estimate of the amount of solids it contains by multiplying the last two figures of the specific gravity by 2·33. Thus, in the case of a urine of 1020 specific gravity, if the 20 were multiplied by 2·33, the result would be—the solids in 1000 cubic centimetres of urine $20 \times 2{\cdot}33 = 46{\cdot}6$ grammes.

If, instead, however, of 1000, 1250 cubic centimetres of urine were passed in the twenty-four hours, an additional "simple proportion" calculation would be required to ascertain the total amount. Thus, if 1000 cubic centimetres of urine contained 46·6 grammes of solids, 1250 cubic centimetres would contain 58·25; the calculation being to multiply 46·6 by 1250, and divide by 1000.

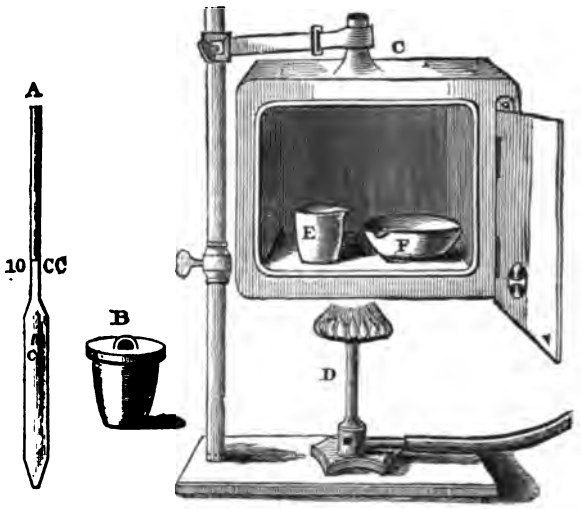
$$\frac{46{\cdot}6 \times 1250}{1000} = 58{\cdot}25 \text{ grammes.}$$

Again, if instead of 1250 cubic centimetres of urine being passed, there were only 800 cubic centimetres, the calculation would still be made on precisely the same principles.

$$\frac{46{\cdot}6 \times 800}{1000} = 37{\cdot}28$$

Although this method does very well when we merely wish to have a rough guess at the amount of solids passed in the twenty-four hours, and it might even be sufficiently exact for ordinary clinical purposes if the specific gravity of the urine were carefully taken with a correct apparatus—the picknometer (Fig. 3, E), for example; yet it is found to be inadequate for scientific purposes, and, therefore, it is necessary to proceed as follows:—Twenty cubic centimetres of urine are exactly measured off in a graduated pipette (Fig. 6, A), put into a clean porcelain crucible of known weight, and again weighed to ascertain the weight of the urine it contains, should that not have been previously done in finding its exact specific gravity. (I generally use the picknometer as the measure, and thereby make one weighing do for both.) The uncovered capsule (Fig. 6, E) is now placed in a close water-bath, heated to 100° C. (212° F.), and kept there until the aqueous part of the urine is all driven off. When such is the case, the crucible will cease to lose weight. (The drying is further insured by placing the capsule for a short time under an air-pump.) The difference between the capsule when first weighed and in its now dry state gives the quantity of water

Fig. 6.



in twenty cubic centimetres of urine. If the patient chance to have passed 1000 cubic centimetres in the twenty-four hours, all that is required is to multiply the loss of water by fifty, and the result is the total amount of water in the twenty-four hours' urine.

Next, as regards the solids, the weight of the brown residue now remaining in the crucible is the weight of the solids in 20 cubic centimetres of urine; and supposing, as we have just said, 1000 cubic centimetres of urine were passed, and the residue weighed 0·6 grammes, the calculation would be:—Multiply 1000 by 0·6, and divide by 20, the amount of urine employed in the analysis—

$$\frac{1000 \times 0{\cdot}6}{20} = 30$$

30 grammes, or 465 grains in the twenty-four hours. The calculation might be simplified by multiplying 0·6 by 50.

Lastly, to ascertain the amount of inorganic salts. This is done by placing the crucible containing the urinary solids over the flame of a spirit-lamp until all the organic matter is destroyed, and there remains nothing but the inorganic ash of the 20 cubic centimetres of urine.(e) The capsule is now allowed to cool, and again weighed, when the weight of its contents will represent the amount of inorganic salts in the 20 cubic centimetres of urine. Suppose, for example, that they weigh 0·3, the calculation would be—

$$\frac{1000 \times 0{\cdot}3}{20} = 15$$

15 grammes, or 232·5 grains of inorganic substance in the twenty-four hours' urine.

Death of Dr. John Jacob, of Maryborough.—With grief we have to record the death of this distinguished member of our Profession, and to express on the part of our brethren the regret they must entertain for the severe loss they have suffered by the lamentable event. His eminence as a provincial practitioner, his high character for independence as a member of our body, and his unflinching honesty, won for him a position in public estimation which cannot fail to sustain the reputation of those who are engaged in the pursuits to which he was specially devoted. He had been for some years in a precarious state of health from excessive labour in the discharge of his public duties, and has, in fact, fallen a victim to that spirit of determination and energetic devotion to the service in which he was engaged for which he was so remarkable. On a future occasion we hope to enter more largely into some detail as to the part he has taken in Medical affairs.—*Dublin Medical Press.*

(e) In order to get the ash perfectly white, it is necessary to add either a few drops of nitric acid, or a fragment of the nitrate of ammonia to the charred mass, and again expose the crucible to a red heat.

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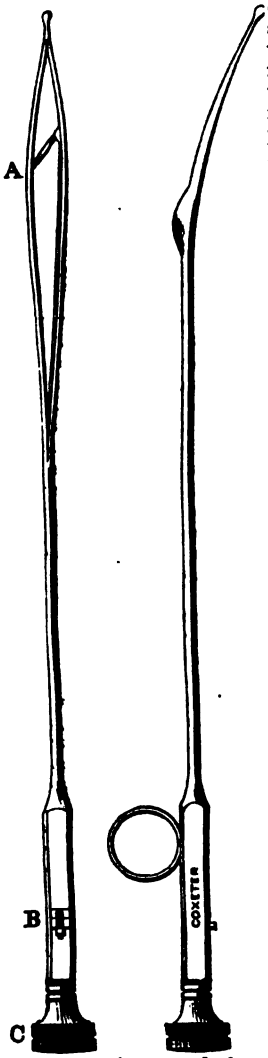
ORIGINAL COMMUNICATIONS.

NOTICE OF AN INSTRUMENT FOR DILATING THE CANAL OF THE CERVIX UTERI.

By WM. O. PRIESTLEY, M.D.,
Professor of Obstetric Medicine in King's College, London.

Mr. Coxeter, of Grafton-street, has recently made, under my direction, a dilator for the os and cervix uteri, which I have found very convenient and effective, and which may be serviceable in the hands of other Practitioners. The instrument consists of two blades in lateral apposition, united at their extremities, and again about five inches lower down, being ununited in the interval. The form is that of an uterine sound. A projection two and a-half inches from the point indicates the length of the uterine cavity, and the finger can ascertain by its position how far the instrument has passed into the womb. The mechanism is borrowed from Mr. Henry Thompson's dilator for the male urethra. A small cross-bar, forming a lever, lies between the ununited portion of the blades at A, and this is made to assume a position more or less horizontal by means of a wire passed through the stem of the instrument, which is worked up and down by means of a screw (C) attached to the handle. An index at B shows how far the blades are separated in the progress of dilatation, and a ring is fixed to the under side for the insertion of the fourth or fifth finger of the left hand, to steady the instrument, while the finger and thumb of the same hand are employed in turning the screw. In this way the right hand is free to guide the point of the sound in the necessary direction, and to keep it *in situ* during the expansion.



The advantages possessed by this form of dilator are,—that it can be fashioned very small for extreme instances of contraction, where it would be very difficult to pass in a sponge-tent; and, although the flexibility of the uterine sound is not consistent with its mechanism, yet it can be made of any curve required. The dilatation produced is lateral, gradual, and progressive, without necessarily being so forcible as to rupture tissue, and there is little tendency in the instrument during the separation of the blades to work itself downwards and withdraw from the os uteri.

Further, the whole cervical canal, including the os uteri internum, can be widened by this instrument, but its greatest power of expansion corresponds to the os uteri externum, where dilatation is most required.

The instruments previously in use have lacked some of the advantages mentioned, and have thus been less useful. Among others, I possess a dilator employed by the late Dr. Edward Rigby, constructed like a pair of polypus forceps, with the blades terminating in a long and slender duckbill, for insertion into the os uteri. The instrument could not be passed into an os uteri much contracted; moreover, in any case I have attempted to use it, I have not succeeded in penetrating within the os uteri beyond half an inch, and it has slipped out of the orifice directly separation of the blades was attempted. An ingenious instrument was exhibited by M. Mathieu, of Paris, in the late Industrial Exhibition. This, also, I have employed; but it has the disadvantage of dilating in an antero-posterior direction, and in practice tends to withdraw from the canal of the cervix instead of stretching the contracted parts. This last objection also applies to those exhibited by Charriére. I do not propose here to discuss the propriety of dilating the os uteri, or to point out the instances in which dilatation should be attempted. I think it is generally admitted that cases occasionally occur in which this treatment may be pursued with advantage if it can be carried out effectually; and my own experience leads me to believe that gradual dilatation is more likely to be followed by permanent widening of the cervical canal than the more forcible and rapid distention produced by a sponge-tent.

Lastly, I may be permitted to remark that the relief experienced in some cases of dysmenorrhœa after dilatation of the cervical canal is not always apparently in proportion to the amount of previous contraction as determined by the easy or difficult introduction of the uterine sound in the menstrual interval. There are, I believe, patients to be relieved by dilatation who have no marked contraction of the orifice, but who suffer pain because the menstrual fluid is secreted more rapidly in the uterine cavity than it can escape through a cervical canal of ordinary calibre, or else, it may be, have the aperture narrowed for the time being by spasmodic contraction of the orifice such as takes place in spasmodic stricture of the urethra in the male.

I have been informed at Mr. Coxeter's that, some time ago, another practitioner had ordered Mr. Thompson's urethra dilator, without the modifications I have suggested, but with the view of employing it for dilatation of the os uteri. I have not been able to ascertain this gentleman's name; but as this short paper is simply to notice a useful instrument, and not to put forth a claim to priority, it is of little consequence.

DIGITALIS IN CARDIAC DISEASE.

By DAVID H. STIRLING, M.D.

As the action of digitalis upon the heart is now being investigated anew by various Physicians, I beg to send you the following notes of cases treated by that drug. They are condensed from notes taken while the cases were under treatment:—

Mrs. F., aged 69, consulted me about six years ago, when suffering from an attack of "breathlessness," with cough, which she attributed to bronchitis. She had no symptoms of bronchitis, but the heart's action was irregular and weak. No cardiac murmurs or other sign of structural change. Under the most simple treatment,—rest, mustard cataplasms over the region of the heart, and a glass or two of wine daily, she rapidly recovered.

Similar attacks recurred from time to time, each one more difficult to combat than the preceding. In the autumn of 1862, after a rather severe attack, there remained more or less irregularity of cardiac action, and slight breathlessness on going upstairs. In March last a most severe attack of dyspnœa came on suddenly during the night. I found her propped up in bed, afraid to move or speak. She complained of severe pain across the front of the chest, retched frequently, at times so severe as, along with the painfully-laborious breathing, to threaten almost instant death. The pulse at the wrist was almost imperceptible; cardiac action so tumultuous as to render it difficult to distinguish between the first and second sounds; both sounds sharper than natural; no cardiac murmurs; face bedewed with cold sweat; feet and legs cold. Chlorodyne gave temporary relief; brandy was given freely, and hot bottles applied to the extremities. In about an hour the immediately-dangerous symptoms were overcome.

Next day she was able to bear a short stethoscopic examination, which revealed considerable disease of right lung, as evidenced by comparative dulness over the lower half of the right side; bronchial breathing in upper half of lung; respiratory sounds in lower half heard only on attempting to take a deep inspiration. Extensive congestion was present, and clearly traceable to impeded circulation. Cough with hæmoptysis came on, and all food was refused or rejected. The urine became scanty, not albuminous; legs œdematous; ascites followed; rest in bed became impossible, and the case seemed altogether hopeless. Stimulants, diuretics, counter-irritation of all kinds over chest and back were perseveringly used, but

without success. This state of matters continued for nearly three weeks, when, anxiously pondering what course to follow, Dr. Handfield Jones' cases fortunately came to my recollection, and I at once prescribed digitalis. Ten drops of the tincture were given every four hours. The relief was so great that from a state of absolute agony she enjoyed comparative quiet in less than three days. The heart's action became daily stronger, as indicated by less tumultuous action and slower pulse. Calm breathing, cessation of hæmoptysis, gradual removal of ascites, and œdema of legs, followed, and convalescence was established. The medicine was continued for a fortnight longer in ten-drop doses thrice daily. The lung gradually recovered, but slight comparative dulness and less distinct respiratory sounds over affected part remained. During last summer she suffered several times from a recurrence of her former symptoms. On each occasion digitalis was immediately given, with the effect of removing all pain and difficulty of breathing after two or three doses.

Mrs. S. suffered from general anasarca during pregnancy. I learned this for the first time when called to attend her in her confinement. Slight post-partum hæmorrhage left her weak, and she made a slow and imperfect recovery. Some weeks after I had left off attendance I was again called, and found her in a state of extreme weakness, propped up in bed, and breathing hurriedly. The pallor of surface was something remarkable; she seemed to have no red blood in her body; there was general anasarca, and short hacking cough. On examination I found irregular cardiac action, first sound scarcely heard anywhere, second sound very sharp at base, pulse about 170 when it could be counted, urine scanty, but quality normal. Weak cardiac action seemed the alone cause of her sufferings. Strong soups and wine ordered; ten drops of tincture of digitalis to be taken every four hours. In two days she felt greatly better; heart's action became stronger; when patient lay perfectly quiet there was no irregularity; the first sound was now distinctly heard, and dyspnœa gone. Iron was added to the digitalis, and rapid improvement followed. Some weeks later the heart's action again failed, pulse rose, dyspnœa returned, and a sense of sinking was complained of. The digitalis was resumed, and all these symptoms disappeared in a day or two.

Mrs. Y., aged 44 years, had long suffered from disease of the heart, according to her husband's account; the symptoms complained of being, palpitation on walking smartly, on going upstairs, or after any excitement; occasional swelling of the legs, and sometimes cough. I found her sitting in a chair, propped up with pillows, breathing rapidly; face of a purplish hue, and cold; tongue cold; pulse at wrist imperceptible; great œdema of legs; could not move without bringing on a "fit of breathing." Arcus senilis very marked. On examining the chest, I found the heart beating in a most extraordinary manner: the organ seemed to fill out and press upon the ear, then making one or two attempts at contraction, both sounds very feeble, it would suddenly thump against the ear and recede so much, that the stethoscope could with difficulty be kept applied. No cardiac murmurs; no bronchitic complication; stomach very irritable, even cold water rejected; thirst great; to have tea spoonfuls of strong beef-tea, wine and brandy in same quantities frequently, and ten-drop doses of tr. digitalis every four hours. Next day I was informed (the patient lived some miles in the country) that she could not take the stimulants, and that the medicine had been rejected twice. Ordered to take five-drop doses of the digitalis, slowly sipped from a glass of water, during a quarter of an hour; to be repeated as formerly. The irritability of stomach ceased, and in two days ten-drop doses were given, without any discomfort. A few drops of tr. of nux vomica were tried with each dose, but without good effect. In a few days more she was able to be downstairs during great part of the day, and enjoyed comparative quiet during the night. Improvement in this case was partial, and of short duration. A second severe attack came on, was again greatly relieved by digitalis, but rest in the horizontal posture became from this time impossible. I saw her on three different occasions, each time observing a marked change for the worse. The medicine was discontinued, and tonics, stimulants, and counter-irritation employed, as before the trial and failure of the digitalis, but without any good result. Anasarca increased, dyspnœa became constant, and death followed most painful sufferings in a few weeks. Why this case resisted the treatment so successful in the others I cannot say; it seemed as hopeful as the others, and promised well at first.

I have made trial of digitalis in several cases of mitral regurgitation, but cannot speak favourably of its effects. From my experience of the action of digitalis in cardiac disease, I am satisfied that we have in that drug a most valuable agent in cases of enfeebled heart without valvular complications. Its action on the organ appears direct and rapid, and no bad effects seem to follow its prolonged use. As it is of vast consequence that we should become acquainted with the range of action of this and other active medicinal agents in disease, I trust digitalis will obtain a fair and extended trial in cases of enfeebled cardiac action. Iron given in combination with it, as in Case 2, seems to act well, but the iron can only be of use in improving the quality of the blood. Alone it fails; along with the "specific" it is of value. In Case 3 I tried nux vomica in combination, in hopes of improving the tone of the stomach, but I am satisfied the practice was wrong, and likely to interfere with the action of the other medicine. The disorder of stomach in these cases is clearly due to sympathetic irritation, to be remedied by removing the primary affection.

Perth.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

LONDON HOSPITAL.

NOTES ON LARYNGOSCOPY.

On a recent occasion, in bringing some cases of laryngeal disease under the notice of the students, Dr. Morell Mackenzie made some preliminary remarks on the importance of the laryngoscope in diagnosis. The application of remedies with precision to the interior of the larynx was always a delicate, and frequently a difficult, operation; and it required that the eye should be constantly practised and the hand habitually exercised; but, "for the purposes of diagnosis, a little care and average manual dexterity were," Dr. Mackenzie observed, "alone necessary." He insisted on the great injury which might result from mistaking functional for structural disease, and remarked, "that, though such an error, no doubt, frequently occurred in former times, there was no excuse for it now."

Loss of function, independent of structural disease, might depend on some peculiar condition of the "nerve-force," or it might be due to extrinsic disease—that is to say, to pressure applied to the pneumogastric nerve or its branches. It was very necessary to recognise this fact, because it had a very important bearing both on the treatment and the prognosis. "Fortunately, it was easy," Dr. Mackenzie said, "to diagnose between these two conditions; for, whilst in true functional aphonia the vocal cords were always both equally affected, in cases where the loss of voice was due to pressure on the pneumogastric or recurrent nerves, the paralysis was almost invariably unilateral." In true functional aphonia, the vocal cords sometimes scarcely moved at all in phonation, whilst at others they appeared to approximate perfectly. The fact, however, that in functional aphonia the two cords always acted equally, afforded a point for differential diagnosis between the two diseased states now under consideration. It was only when the pressure was applied to the recurrent nerves in their passage between the trachea and œsophagus, that both nerves were at all likely to be affected at the same time. This sometimes occurred in malignant stricture of the œsophagus, and Dr. Mackenzie said that he had met with a few such cases; but in this disease there were other symptoms which clearly indicated its true character. When one vocal cord remained immovably fixed, it was necessary to make a very careful examination of the chest, as there was every reason to fear the existence of a thoracic tumour. To this we have already drawn attention in our Hospital Reports January 9, where a case, under the care of Dr. George Johnson, in King's College Hospital, is recorded, in which he found the laryngoscope was of the utmost use in determining the existence of an aneurism of the aorta, and also another case in which an examination by Dr. Mackenzie gave similar evidence. In the following number, Dr. Gairdner, of Glasgow, gave particulars of a case in which laryngoscopy helped in the diagnosis of a thoracic tumour. As an important feature in diagnosis where the laryngoscope could not be used, Dr. Mackenzie observed, that "in true

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functional aphonia the cough is almost invariably natural—that is to say, it *sounds* perfectly. In aphonia due to pressure on a nerve, the cough has always a peculiar metallic ringing sound. In simple functional aphonia, the voice is generally completely suppressed, and the patient can only whisper: in unilateral paralysis, the voice is seldom suppressed, but the patient speaks in a shrill, painful voice."

In cases where there is an absence of symmetry; where the vocal cords do not appear to diverge from their point of insertion at the same angle; where the glottic opening inclines to one side or the other; or where one capitulum Santorini appears to be at a higher level than the other, it is very desirable to introduce the laryngeal mirror, first with one hand and then with the other. An unsymmetrical appearance in the larynx is sometimes produced by an unsymmetrical position of the mirror, and one hand will be found to correct the mistakes of the other. Dr. Mackenzie observed that it was not his intention to give a systematic account of diseases of the larynx; but he hoped that the patients now brought under notice would illustrate some of the more common pathological conditions met with in practice.

SYPHILIS.

When a patient once became affected with constitutional syphilis, he was very liable to affections of the larynx. The morbid condition might be a mere catarrhal congestion; but it might be a violent inflammatory process, leading to rapid ulceration and extensive loss of substance. There might be an œdema or a new formation; but there were two conditions, one of which was quite pathognomonic, and the other very characteristic of syphilis. These were (1) mucous tubercles or condylomata, and (2) syphilitic stenosis, from chronic thickening of the mucous and sub-mucous tissues.

Case 1.—*Syphilitic Condylomata of the Larynx.*

Henry P., aged 24, suffering from hoarseness and cough. Six months before he had had a hard chancre, and since his body had been covered by a roseolar eruption. In the beginning of December he caught cold, and became very hoarse. With the laryngoscope, some soft, whitish, irregular elevations of the mucous membrane were seen on the inter-cartilaginous portions of the vocal cords. The rest of the mucous membrane was brightly congested, and contrasted strongly with the pale condylomata. Dr. Mackenzie considered this a typical case of secondary disease of the larynx. According to Gerhardt and Roth, this condition was very common in constitutional syphilis; but in Dr. Mackenzie's experience it occurred less frequently in London than it appeared to do at Tübingen. As regards local treatment, Dr. Mackenzie observed that he had found a solution of bichloride of mercury (gr. j., ad. ʒj.) very effective, if applied freely every day. Nitrate of silver answered very well, but it was more disagreeable to the patient. The cases reported by Gerhardt and Roth in *Virchow's Archiv.* had been treated with mercury, administered internally, so as to produce its specific action. This plan was certainly strictly in accordance with the doctrines of M. Ricord, but Dr. Mackenzie had not always found it necessary to employ constitutional treatment.

Case 2.—*Syphilitic Stenosis of the Larynx, treated by the Administration of Iodide of Potassium.*

Patrick B., aged 43, applied for relief on account of loss of voice and shortness of breath.

Twenty years ago he had had a primary sore, and since then ulcers had formed on different parts of the body, which had left numerous scars. He caught cold two years ago, and lost his voice at that time; latterly he had found his breath very short, and was unable to do any work requiring the least exertion. The laryngoscope showed that the diameter of the laryngeal canal was greatly diminished by the immense thickening of its walls. The surface of the mucous membrane was not of a brighter red colour than in the normal condition. This was not an instance of inflammatory tumefaction, but a case in which an exudation had been slowly taking place for a long time, and gradually undergoing organisation. The induration was general, but the true cords were less affected than the other parts, with the exception of the epiglottis, which was quite healthy. The right false cord was so much enlarged that it almost eclipsed the true one below it, and on phonation only allowed a small portion of the free edge to be seen. These cases did not often yield to local treatment, as the exudation generally underwent a higher degree of development, and seemed to possess a greater vitality than was commonly imagined. Fortunately the effect of iodide of potassium was highly satisfactory in syphilitic stenosis. In this case absorption had already begun to take place under the use of this drug. The respiration was less embarrassed, and the action of the vocal cords more free. Nitrate of silver had been applied both in the solid form and in solution, but no effect had been produced by this agent.

Case 3.—*Syphilitic Stenosis treated with a "Pulverised Solution" of Perchloride of Iron.*

This case was very similar to the last. Mary Anne S., aged about 35, was sent to Dr. Mackenzie by Dr. Tilbury Fox. She seemed to have been suffering from constitutional syphilis for a long time, and said that she had been under Mr. Dunn, at the Farringdon Dispensary, almost continuously for the last five years. She had lately left the Westminster Hospital; and when she applied to Dr. Mackenzie, on December 22, she was suffering from severe stridulous breathing, complete aphonia, and a constant croupy cough. A laryngoscopic examination showed great thickening of the false cords and of the ary-epiglottidean folds and mucous membrane over the arytenoid cartilages. She had a great objection to having her throat "burnt," as she said that that always made it worse. Under these circumstances, Dr. Mackenzie caused her to inhale a "pulverised solution" of iron (gr. v., ad. ʒj.). This treatment produced the most satisfactory results. At the end of a week there was no cough nor stridor, and the patient was able to speak in her natural voice. Iodide of potassium was given at the same time; but as she had been taking this medicine for some months, Dr. Mackenzie considered that the great improvement was due to the local action of the iron. It was seldom that these cases were influenced by local remedies, and this was a remarkable exception. Though, however, the patient considered herself cured, there was, of course, a certain amount of induration remaining, and a tendency to the return of a more acute inflammation would no doubt remain for some time.

These cases of syphilitic stenosis were not to be confounded with those where the narrowing depended on the contraction of cicatrices after ulceration. In the cases now under consideration there was very little tendency to ulceration; and the narrowing, as already stated, depended on the organisation of an exudation beneath the mucous membrane. Syphilitic stenosis was essentially a tertiary phenomenon.

PHTHISIS.

The remarks which had been made with reference to syphilis applied in some measure to tubercular disease of the larynx; that is to say, that in patients affected with pulmonary phthisis the pathological process in the larynx varied greatly as regards site, character, and course. Thickening of the mucous and sub-mucous tissues was the most common laryngoscopic feature, and ulceration seemed rarely to take place till after there had been considerable deposit. In the absence of syphilis, Dr. Mackenzie considered that great thickening of the tissues at the upper opening of the larynx was very characteristic of phthisis. In these cases, two large, round, pyriform, or oblong tumours were often seen forming the posterior half of the laryngeal image. An exudation took place into the areolar tissue; and when the exudation was confined to the immediate vicinity of the capitula Santorini, instead of seeing these little tubercles surmounting the arytenoid cartilages, their place was occupied by two round tumours, looking like the half sections of marbles. When the ary-epiglottidean folds were involved, the tumours were of a pyriform shape, the small end of the pear being formed by the epiglottic extremity of the ary-epiglottidean folds; and when the false cords were also affected, they often formed, with the ary-epiglottidean folds and the mucous membrane over the arytenoids, two large oval tumours, one on each side. Both sides were not always equally affected, but it often happened that they were so. In the following case there were no physical signs of phthisis, "yet there was no doubt," Dr. Mackenzie said, "that the disease was of a tubercular character."

Case 4.—*Laryngeal Phthisis.*

James G., aged 24, suffering from complete aphonia and slight dysphagia. He states that he was quite well till nine months ago, when he took cold and became hoarse. After three months the voice became entirely suppressed, and has remained in that condition since then. There was no trace of lung disease, but the laryngoscope showed two large round tumours in the arytenoid region. The tumours were formed of the thickened tissues around the capitula Santorini; they

were about the size of the half segments of cherries, and were of a bright red colour. Rather below, and to the outer side of the normal position of the right capitulum Santorini, a small yellow speck was seen. It appeared to be beneath the mucous membrane, and did not project at all. It was difficult, in cases of this sort, to tell whether the appearance was due to the presence of pus or tubercular deposit beneath the mucous membrane, or whether the yellow speck was the displaced cartilage, shining beneath the membrane. The false cords were congested, and it was only possible to see just the inner edges of the true cords, which were noticed to be very irregular and jagged. This patient had never had syphilis; and Dr. Mackenzie said that, from the appearance of the larynx, he was able to diagnose phthisis, notwithstanding that the stethoscope gave no signs of that disease. The patient had been under treatment for some time, and various local remedies and constitutional measures had been resorted to, but without any effect. The prognosis was very unfavourable.

NEW FORMATIONS.

The morbid growths most commonly found in the larynx were undoubtedly of epithelial character. These pathological productions were analogous to the warts which form on the common integument, but the relative proportion of their histological elements was slightly modified by their growth from a mucous surface. In warts on the skin there is a greater development of epithelial scales, whilst on the mucous membrane the minute blood-vessels and papillæ are more numerous. On the mucous surfaces, therefore, they are softer and more easily torn away from their connexions. This was an important and highly satisfactory fact as regards treatment, for the morbid growths were far more easily removed than would be the case if they were as dense as those on the common integument. It had been well remarked by Dr. Czermak, that small growths on the vocal cords often destroy the voice more completely than larger ones; for, whilst small excrescences got in between the cords, and prevented that degree of approximation which was essential to the due production of sound, the larger tumours sprouted up into the laryngeal cavity, and thus caused less interference with the action of the cords. There was another curious and interesting fact in connexion with the effect which morbid growths in the larynx exercised on the vocal function; this was, that "when there is a small growth in close proximity with the vocal cords, the aphonia or hoarseness which is present is sometimes only indirectly caused by the growth." The loss of function, though of course dependent on physical causes, is not due to direct mechanical influences. The cause of the dysphonia may be a super-induced congestion of the vocal cords, or it may be that the innervation of the part suffers in some way from the presence of the morbid growth. "Now it is not uncommon," Dr. Mackenzie observed, "in various diseases, for Physicians to prove or support a diagnosis by the subsequent results of treatment. This method could no doubt sometimes be relied upon; and when a previous diagnosis was found to dovetail nicely with the subsequent course of the disease, the former certainly obtained some confirmation. But there were cases where such a process of reasoning would lead to a very fallacious conclusion, and the following was a good example of this kind":—

Case 5.—Laryngeal Excrescence—Aphonia—The Voice Restored without Removal of the Growth.

Charlotte B., aged 35, suffering from aphonia. This patient first applied to Dr. Mackenzie at the London Hospital in November, 1861. At that time she had had complete loss of voice for two years; and, when examined with the laryngoscope, an irregular warty growth, about the size of a pea, was seen on the anterior surface of the right arytenoid cartilage; it was just above the level of the vocal cords, but its lower surface appeared to touch the right true cord. Both the true cords were congested. The aphonia was thought to depend on the presence of the growth in the larynx, and strong solutions of nitrate of silver were applied to it. At the end of three weeks the voice was restored, but the growth had not undergone the slightest alteration in appearance. General reasoning would have led one to believe that the voice was restored because the tumour was removed, but the fact was quite otherwise. The patient retained her voice perfectly till the autumn of 1863, when she caught cold and became aphonic. She applied to Dr. Mackenzie in December, 1863; and he found, on comparing the laryngoscopic appearances as they then presented, with a drawing he had taken in November, 1861, that the laryngeal growth had not undergone the slightest alteration. Dr. Mackenzie adopted the same treatment as he had employed in 1861, with the same result; the voice was restored, but the morbid growth remained *in statu quo*.

Case 6.—Laryngeal Growth Removed with Curved Forceps—The Voice Restored after Five Years of Aphonia.

Margaret L., aged 43. This patient stated that, in March, 1858, she caught cold, and lost her voice. From that time till October, 1863, she had never been able to speak above a whisper. The laryngoscope revealed an excrescence rather larger than a pea on the posterior extremity of the right true vocal cord. At the third sitting, Dr. Mackenzie succeeded in seizing the growth with some curved forceps, and bringing it away. Dr. Andrew Clark had kindly examined it with the microscope, and he pronounced it to be a simple wart. The epithelium was of the scaly variety. The voice was restored, but it was of a rather deeper tone than was common in women. A small, but distinct white depression at the posterior extremity of the right vocal cord indicated the situation of the wound caused by the evulsion of the growth.

METROPOLITAN FREE HOSPITAL.

BROMIDE OF POTASSIUM IN SOME FORMS OF INFANTILE CONVULSIONS—CASES AND CLINICAL REMARKS.

(Cases under the care of Dr. JAMES JONES.)

E. P., aged 10 months, a female, pale, with a prominent forehead, and rather large abdomen. Supported solely by the breast; cut four central incisors with diarrhœa, but no convulsions. The upper lateral incisors are now protruding the gums, which are swollen and tender; fontanelle depressed; bowels rather costive; was seized with a violent paroxysm of convulsions; urine pale and abundant. After a few hours had a second attack of equal severity. A Medical man who was consulted incised the gums freely, gave some brisk cathartics, and ordered hot baths, with cold lotions to the head to be used in the event of a return of convulsions; but the paroxysms continued to recur at irregular intervals. On the third day the child was brought to the Hospital. Dr. Jones prescribed a mixture of bromide of potassium in doses of two grains, with ammonia and camphor mixture every six hours. About two hours after the first dose the child had a paroxysm of convulsions, but of a much milder kind, after which there was no relapse.

S. B., aged 11 months, a male, a tall, thin child, with skin and hair remarkably fair, was taking, in addition to the breast milk, a teacupful of Oswego corn flour pap night and morning; cut all the incisor teeth without any apparent suffering or derangement of the health. Upper bicuspids are protruding the gums, which are much inflamed and swollen. Had been much frightened, being violently shaken by a girl who had charge of him. Fontanelle depressed; pupils small; aversion from light. Convulsions came on about 11 o'clock p.m. during sleep, and continued for ten minutes. A hot bath was given, and the gums were freely incised. The convulsions ceased for two days, but returned the third day, with increased severity. Dr. Jones prescribed two grains of bromide o potassium to be repeated every four hours. There was no return of convulsions, and the child soon lost the aspect of fear and distress which previously were well marked.

J. G., aged 2 years and 3 months, a well-developed boy, but anæmic, very timid, and with peculiarly restless eyes, dentition complete, three days before his first attendance was seized with convulsions of a very severe type, which continued to recur at irregular intervals twice or three times a-day. A dose of calomel was given, followed by castor oil and turpentine, but with no improvement. No worms were discharged. Bromide of potassium was then given in doses of three grains every six hours. The first day of this treatment there was one rather violent paroxysm of convulsions and another less severe, after which they entirely ceased. The bromide was continued in progressively diminished doses for ten days, after which he took the perchloride of iron in small doses. He was brought as an out-patient for two months. He appeared at the end of that time in perfect health.

I have taken these three cases as typical of a form of infantile convulsions commonly met with in large towns and crowded localities. However much these little patients may differ in aspect or appearance, there is one pathological con-

dition common to all—viz., hyperæsthesia of the nerve centres, coupled with anæmia and complete absence of all symptoms of inflammation. There is an aspect of timidity and an expression of anxiety highly characteristic. The child often talks or mutters in his sleep. He seems to dream a good deal, often starts up frightened, and is apt to wet the bed. The urine is pale and copious, the tongue clean, the pulse is weak and irregular in number, the fontanelle, if still existing, is *always* depressed. The appetite is generally good, often ravenous; the bowels sluggish. It is of great importance to distinguish between these cases and those of a sthenic type and arising from encephalic inflammation. If depletory measures be employed, such as leeching, frequent purging, antimony or calomel in repeated doses, the little patient grows rapidly worse, the convulsions recur with increased severity and frequency. Such treatment adds to the morbid sensitiveness of the nerve centres. If, on the other hand, means be adopted which tend to support the strength and to calm the excessive irritability of the nerve centres, the convulsions cease. Opium is often of great service in these cases. It has been condemned by many as an uncertain medicine in convulsions, but it is only so when given indiscriminately. In the cases under consideration it proves very useful, but it should be used with much caution if the diagnosis be imperfect. But my chief purpose in making these remarks is to draw your attention to the action of the bromide of potassium in these cases. It appears to have a powerful sedative effect on the morbidly irritable nerve centres; its power in controlling reflex excitement of the voluntary muscles is very remarkable. This property is well exemplified by the experiments of my friend, Dr. Gibb, who has used it successfully to diminish the spasmodic action of the muscles of the pharynx on the application of the laryngeal mirror. I have now tried it in many cases of infantile convulsions of the type indicated by the cases I have brought under notice with very good results. Its effect is rapid, one or two doses being often sufficient to arrest the tendency to convulsion. From the rapidity of its action it would seem to be a direct sedative either to the cerebro-spinal centres or to the vasomotor nerves, probably to both. As an eliminant it is much inferior to the iodides, whereas the latter have much less claim to the character of sedative.

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Medical Times and Gazette.

SATURDAY, MARCH 5.

SHALL THE DRUGGISTS HAVE A CHARTER?

Most of our readers are aware of the existence of a respectable, but somewhat dreary journal, yclept the *Pharmaceutical*, which circulates amongst that portion of the chemists and druggists owning allegiance to the Pharmaceutical Society. This serial is principally devoted to a discussion of matters pertaining to Pharmacy, and we are very willing to admit that, despite the heaviness which of necessity cleaves to such a subject, the *Pharmaceutical Journal* is useful, although not entertaining, in its day and generation. But it has besides another object. It is the organ of that portion of "the trade" who are dissatisfied with their public and social *status*, who wish to cast the sober business shell, and to start into new life in the butterfly hues of a profession. They are longing for examinations, licenses, the exclusive possession of the name "chemist and druggist," a State protection from competition with all unqualified drug vendors, and a severance of their body from the contaminating alliance with the drysalter and oilman. As may be supposed, our recent article on the "Proposed Legislation for Chemists and Druggists" has aroused the ire of our respectable contemporary. For ourselves, we confess that we wrote, not to support the dignity of the owners of those pretty red and blue solutions which impart such cheerfulness to our street prospects on a winter's evening, but in the interests of the great Medical Profession, of which the chemists and druggists form no part.

The *Medical Times and Gazette* is charged with being a dissentient from the principle that dispensers of medicine should possess competent knowledge. We simply deny the allegation. We hold that dispensers of medicine should possess competent knowledge of *dispensing*, just as other tradesmen should be acquainted with their several callings. But we say that the competency of the chemist and druggist is to be judged by the public, and not by the State, and that not only is there no necessity for any other tribunal than the former, but that the introduction of State interference in the matter is a direct contravention of acknowledged commercial principles. We repeat that there is nothing in the business of the chemist and druggist which elevates it from the rank of the other better class of trades. To become an expert dispenser of medicines it is only necessary that a lad should have an ordinary education at a third-class grammar school, and an apprenticeship to a competent master for a moderate length of time.

But the Pharmaceutical Journalist puts the matter on a very different footing. He considers that it is necessary for dispensers to exercise a "supervising care" (*sic*) over the prescriptions of Physicians, in order that patients may not be killed by the blunders of the writers. Really, we think that the College of Physicians would wish to express their grateful thanks to this champion of the spatula, but, at the same time, to politely inform him that they would rather their prescriptions were dispensed as they wrote them. Of this the chemist may be certain, that if any one is killed by the prescription of a Physician, the penalty of the law will certainly not fall on the dispenser, if his duty be accurately performed, but on the prescriber. No one doubts that chemists should be a well-educated body of men,—a body well skilled in their trade and the knowledge it requires. But of this the public and the Medical Profession are the only necessary judges. And that they do form an adequate judgment the position and business of such houses as Allen's, Savory and Moore's, Bell's, Morson's, Bullock's, Squire's, Corbyn's, and a dozen others we could name, prove. If, however, any chemist or druggist requires a testimonial of proficiency as a passport to business, the Pharmaceutical Society's certificate is within his reach.

We are not in the least ashamed to avow that we look on this subject through the medium of the interests of our own Profession. We do not wish to see in every village an inferior kind of Practitioner. We are not desirous that the precedent of the Apothecaries' Act should be followed over again; (a) that

(a) At a special meeting of the Council of the Pharmaceutical Society, February 26, 1864, the following requisition, duly signed, was submitted to the Council:—

"To the President, Vice-President, and Council of the Pharmaceutical Society of Great Britain.

"Gentlemen,—We, the undersigned, believing that it is highly desirable *for the protection of the public* that all future chemists and druggists should undergo a *due professional examination before commencing business*, hereby request you to convene a general meeting of the members of our Society, for the purpose of considering the expediency of an immediate application to Parliament for an amended Pharmacy Act, by which (*following the precedent of the Apothecaries' Act*) the legitimate interests of those already in business should be protected, and proper provisions made for rendering the examinations of future chemists by your Board a compulsory instead of an optional proceeding."

In compliance with the above requisition, it was

Resolved—"That a special general meeting of the members of the Society be held on Thursday, the 17th March, at twelve o'clock precisely, and that the notice convening the said meeting, with the names of the requisitionists, be announced in the ensuing number of the Journal."—*Pharmaceutical Journal*, March 1.

Medical Practitioners should be starved out, as a highly-learned and accomplished body of men—*laudati et algentes*—to be referred to in emergencies, whilst the lucrative part of Medicine, *i.e.*, the daily and hourly relief of bodily ailments, falls into the hands of the chemists and druggists. Give the chemist and druggist a new Professional character, and the counter practice which he already carries on must increase enormously. Who is to hinder him from visiting? Suppose, some fifteen years hence, in a country village, a respectable, well-educated druggist, who has been long established, and *knows the action of medicines*, who holds a legal diploma as a Pharmaceutist, and a young Surgeon, the only Medical Practitioner in the village, the latter perhaps not known, and wanting some of those graces of manner and appearance which are an easy passport through the world. Where would public confidence be placed? If in a case of emergency the chemist were sent for, where is the law that would prevent his going? Would public opinion sanction repressive measures? We leave these questions to be answered by the common sense of the Medical Profession.

We are quite aware that some of the promoters of this movement amongst the chemists and druggists profess to disclaim all intention of passing into the domain of the Medical Practitioner, and repudiate the practice of prescribing over the counter. But we have one question to ask on this point—In how many druggists' shops in London at the present time would a customer, who asked for "something to cure a cough," be referred and recommended to pay a fee to a Physician? Or suppose a mamma, applying to know whether a little "chalk mixture" would not be a proper thing to give baby—from how many chemists would she get the answer, "Madam, I do not prescribe, I only dispense?"

It is urged that the proposed legislative interference is for the protection of the public. We simply ask, are the public in danger now? Would a certificate of competency be any safeguard that no blunders should ever be made in the shop of the possessor?

We acknowledge the division of labour, and we are most ready to express our gratitude for the additions made to our knowledge by the Pharmaceutical Society. We say to them most cordially—"Go on and prosper in the study of the sciences which may throw light upon your avocation." But we, writing in the interests of Medicine, are not so bereft of sense but to see that in districts where the Medical man is paid by his physic, where the only remuneration given for his professional services is the profit contingent on the medicine supplied, to elevate the druggist is to place the public (whose protection is so sacred) in the hands of a *mere* tradesman, who is utterly ignorant of diagnosis. The Surgeon and Apothecary in general practice combines some trade, just as the attorney does who charges per sheet for documents; his trade, however, is subordinate and incidental. But be this as it may, we know country Hospital Surgeons in very large practice, men of science and general accomplishment, first-rate operators and practitioners, who make almost the whole of a large income by supplying their own medicine:—very derogatory, doubtless, but a fact. We English do not make perfect constitutions on paper, to which afterwards facts may be adjusted, but we take the facts first and adjust our constitution to them. And it is a fact that a large portion of the public will neither pay fees nor for attendance alone.

On the same principles which regulate physic, and in which we acquiesce for ourselves, we say to the chemist and druggist, Go on; study; make yourselves as much philosophers as you can. But except in large towns and in the case of a very few chemists in the best parts of London, you can't live on your legitimate business; and you know it. You would starve on the dispensing of prescriptions and the mere sale of drugs. You add to this the sale of patent medicines; you cover your counter with bills of "anti-bilious pills" for "indigestion and all complaints arising from liver derangement," or of "pectoral pills, for the cure of asthma, bronchitis, and consumption;" and you can't live then. You must sell perfumery, toothbrushes, and all sorts of sundries for the toilette and the sick room; and in smaller places you must add grocery, oils, paint, &c. Carry on your business and improve it as much as you please by becoming educated and scientific men; but do not suppose that we, having the interests of the country Practitioner at heart, can be indifferent to the prospect of seeing our Profession deluged by the influx of your whole body. As a legalised Profession, the law gives us a certain amount of protection—some of us care for it; some do not—but we see clearly enough that, if the druggist is to add to his business by taking the position of the Medical Practitioner, the sooner the Medical Practitioner takes to the sale of perfumery and cattle medicines the less likely will he be to go into the Insolvent Debtors' Court. To bring in *a trade*, as another privileged body, with a privileged title, would be an injustice to the Medical Profession, and an outrage on the recognised principles of political economy.

THE WEEK.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE V.—FEBRUARY 11.

In this Lecture the description of the structure of the human brain was continued. On the inner surface of the cerebral hemisphere is an aperture leading from the third ventricle into the cavity within the hemisphere; this is the foramen of Monro. The aperture is prolonged backwards as a cleft (in the undisturbed condition of the parts closed by membranes), which constitutes the lateral portion of the so-called "great transverse fissure of the brain." The lower boundary of this cleft is a thin white band called the tænia semicircularis. Above and in front of the opening is a portion of the inner wall of the hemisphere, closing the lateral ventricle towards the middle line, which may be called the "septal area." The free, inferior margin of this area, which is thickened, constitutes the body and posterior crus of the fornix. Besides the anterior pillars of the fornix (small white bands passing down to the corpora albicantia, behind the anterior commissure), there are numerous longitudinal fibres passing forwards from the fornix in the septal area, above and in front of the anterior commissure; these may be called the "pre-commissural" fibres; they are less developed in Man than in the lower Mammals. The upper part of the septal area is very thin, constituting the "septum lucidum," which may also be described as the part of the inner wall of the hemisphere situated immediately above the anterior part of the fornix and the pre-commissural fibres. The corpus callosum is a great mass of transverse fibres, running from the inner wall of one hemisphere to that of the other, above the longitudinal fibres of the septal area, and forming the roof of the inter-hemispherical cavity or fifth ventricle, and also on each side the roof of the lateral ventricles. In Man this great transverse commissure is exceedingly large; it reaches back so far as to cover the corpora quadrigemina, and almost to touch the cerebellum. Its hinder part is called the splenium, and is very much thickened, containing commissural fibres, not only of the part of the hemisphere immediately opposite to it, but those from all the posterior portions; the middle part, of great length in Man, is the proper corpus; the front part makes a strong bend, the genu; the part that is reflected underneath being called the rostrum. From the latter a delicate layer, the rostral lamina, passes to the upper part of the anterior commissure, though it is doubtful whether it consists of true cerebral matter.

The principal characteristics of the cerebral hemispheres of Man are, their vast size in proportion to the other parts of the encephalon and to the nerves which arise from them; the large size of the frontal lobe, the sulcus which separates this region from the parietal being situated far back; the charac-

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teristic form of the central lobe or insula, somewhat V shaped, and divided vertically by a deep fissure, each half further subdivided by radiating sulci into a number of folds; the great development of the annectent gyri, which usually leads to the entire obliteration of the external perpendicular fissure, and to the extreme reduction of the occipital lobe; and the great obliquity of the fissure of Sylvius. On the internal surface of the hemisphere may specially be noted in the human brain, the obliquity of the internal perpendicular fissure, the downward direction of the hinder part of the calcarine fissure, the proportionate smallness of the uncinate gyrus, the thinness of the septal region, and the great size of the corpus callosum, particularly the large development of the genu, rostrum and rostral lamina.

The thalamary segment of the brain is formed by the optic thalamus on each side, prolonged below into the infundibulum and pituitary body. Its roof is formed by the velum interpositum. The anterior boundary is an almost perpendicular wall, passing down from the anterior commissure to the optic commissure, called the lamina terminalis. The optic commissure itself forms part of the inferior and anterior boundary of the third ventricle, which is the cavity of this segment. The anterior descending pillars of the fornix also belong to the thalamary segment. The mid-brain consists above of the corpora quadrigemina, below of the crura cerebri; the "iter a tertio ad quartum ventriculum" is its ventricle. In the hind brain, the great development and anterior convexity of the pons, and absence of corpora trapezoidea are characteristic of Man, as is also the small size of the flocculus and of the vermis, as compared with the lateral parts of the cerebellum.

A sketch of the modifications which the human brain undergoes during its development will render intelligible, and afford useful material for comparison with, many of the permanent conditions of this organ in the lower vertebrates. In its earliest condition, the embryo has, on its upper surface, a groove, called the "primitive groove." This becomes widened in front; and from this part the future brain commences, in a cellular substance, originally in strict continuity with the epidermal layer of the embryo. In the anterior widened portion of the groove, three dilatations take place, one behind the other. The lips of the groove growing up unite in the middle line; so that a tube is formed with three vesiculations—anterior, middle, and posterior—corresponding with the three primary divisions of the brain before given. In the course of development, a bending of the whole takes place, the middle vesicle being at the top of the bend. From the sides of the anterior vesicle, grow out two hollow bags, which rapidly enlarge and eventually become the cerebral hemispheres. From the front of these, another prolongation, at first also hollow, forms the olfactory segment; while the remaining part of the primitive anterior vesicle becomes the thalamary segment. The growth of the hemispheres so far transcends that of the other segments, that they soon cover them all; and at the fifth and sixth month actually project further beyond the cerebellum than they do in a later period of life. From the floor of the great cavity in the hemisphere, the corpus striatum grows up, and forms an axis, around which the whole hemisphere becomes curved; so that what was at first the hinder becomes the lowermost part. On the inner surface, the original aperture of communication with the primitive segment, from which the hemisphere is an offshoot, becomes the foramen of Monro; from the upper border of the aperture, the fornix is formed; and from its inferior border, the tænia semicircularis. On the hemispheral side of the latter, grows up the corpus striatum; on the other side, the optic thalamus. On the external surface of the hemisphere, a space is formed corresponding to the outer surface of the corpus striatum. This is the future central lobe, or island of Reil, at first perfectly smooth and uncovered, and only at an advanced period of intra-uterine life concealed by the lips of the Sylvian fissure. The temporal lobe is developed at an early age; but the occipital lobe is a subsequent outgrowth from the hinder part of the hemisphere. At first, the surface is perfectly smooth; at about the sixth month, sulci appear. The earliest of them that can be distinctly recognised are the antero-parietal on the outer surface, and the callosomarginal, calcarine, and internal perpendicular on the inner face.

The development of the corpus callosum is a subject of considerable difficulty. According to Reichert and other trustworthy observers, at one time the hemispheres are perfectly unconnected, except by the lamina terminalis of the third ventricle. Upon the inner wall of the hemisphere is a thin depressed area, corresponding with what has been described above as the septal area; from out of the substance of the wall at the upper margin of this space transverse fibres grow out, and unite with corresponding fibres from the opposite side, thus forming the commencement of the future great commissure. Certain changes in the walls of the third ventricle only require to be noticed; by differentiation of part of its anterior boundary, a band of transverse fibres passing between the corpora striata is formed; this is the anterior commissure. Behind this, longitudinal white cords grow up from the optic thalamus and unite with the fornix, of which they form the anterior pillars; and, lastly, the upper portion of the vesicle becomes metamorphosed into the vascular "tela choroidea," which closes in the ventricle above.

PARLIAMENTARY.

On Thursday, February 25, in the House of Commons, Mr. Leslie asked the Secretary of State for India upon what grounds the Royal warrant for Her Majesty's Indian Medical service had been so long delayed, and when the warrant would be issued.

Sir C. Wood said the hope had been entertained for a long time that a Medical service common to the Queen's army and to that of India might be established. It was only last autumn the Indian Council learnt that the War Office considered such a service incompatible with the requirements of the royal army, and separate provision had, therefore, to be made. He was naturally anxious to give to India the benefit of the improved education in sanitary matters which was now bestowed upon the officers of the Queen's army, and a warrant was prepared with that design. It was, however, uncertain whether the scheme could be carried out without infringing some of the clauses of an Act of Parliament, and the matter had consequently been referred for the opinion of the law officers. Until they reported, nothing further could be done.

The whole matter is, therefore, postponed *sine die*. Whilst men are constantly retiring from the service wearied of the chronic state of disappointment which appears to be inseparable from her Majesty's Indian commission, and every fresh effort of the authorities to obtain candidates for the vacant Assistant-Surgeoncies is only a proof of the utter unpopularity of the service, Government is content to sit with its hands folded, having quietly shelved the matter by referring it to the law officers of the Crown. "How not to do it" is a great art; but, highly as we allow Sir C. Wood and the army authorities to be skilled in it, and much as we admire their late display as an artistic effort, we shall be surprised if it reconcile the Medical officers of the Indian army to the shameful want of good faith with which they have been treated.

On Friday, February 26, in the House of Lords, in answer to a question from Lord Colville, as to the part taken by the Deputy-Judge-Advocate-General at the recent Court-martial on Colonel Crawley,

Lord De Grey explained the circumstances under which the Deputy-Judge-Advocate was selected, and stated that the appointment was quite in accordance with the usual practice. But it might be a question whether the different functions of the office should not be hereafter divided.

The Duke of Cambridge took the opportunity of correcting the misunderstanding that had arisen as to a statement he had formerly made in reference to Sir Hugh Rose. He assured the House he had never intended to make any charge against that officer. He had merely described the course of action he had himself taken, and only intended to convey that he differed in opinion from Sir H. Rose, and what he regarded as

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an error of judgment had been misunderstood as a serious imputation.

Lord Chelmsford censured the appointment of the Deputy-Judge-Advocate and the course pursued by that officer during the trial before the Court-martial.

Lord Longford said the public, the press, Parliament, and the Government itself had all been carried away by a delusion as to the whole case against Colonel Crawley, and contended that in justice to that officer the Government ought to pay all the expenses he had been compelled to incur in his defence.

After some further conversation, the subject dropped.

In the House of Commons, Mr. Morritt asked the Secretary of State for the Home Department whether it would be possible for Townley, lately convicted of murder, whose sentence was commuted to penal servitude for life, to obtain, by good conduct or otherwise, at any future period of his life, a licence or ticket of leave to be at large and free from restraint in either this or any other country.

In reply, Sir G. Grey said that convicts under sentence of penal servitude for life, whether that sentence is original or remitted, are not entitled to the benefit of those regulations by which other convicts, under certain fixed conditions, may obtain the remission of portions of their sentences.

The House went into Committee on the Malt for Cattle Bill, the clauses of which were agreed to with amendments.

On Monday, February 29, in the House of Lords, Lord Granville moved the second reading of the Insane Prisoners Act Amendment Bill, having briefly explained the object and provisions of the measure.

Lord St. Leonards thought the Bill required some improvement. He detailed, at considerable length, all the facts of the crime of which Townley was convicted, contending that he was perfectly sane at the time he committed the murder, and had never been otherwise.

Lord Wodehouse objected to the visiting justices being required to put the machinery of the bill in motion. It would be better if the Secretary of State issued a special commission to ascertain the condition of an insane criminal.

The bill was then read a second time.

In the House of Commons, in reply to Sir M. S. Stewart,

Mr. A. Bruce said the second reading of the Cattle Diseases Prevention Bill would be postponed to Wednesday, the 9th of March.

On Tuesday, Sir F. Kelly said that, at the request of the Government, he would postpone the Criminal Appeal Bill until Wednesday, the 9th instant.

On the motion of the Chancellor of the Exchequer, the Malt for Cattle Bill was read a third time and passed.

W. R. WILDE ON THE VITAL STATISTICS OF IRELAND.

(Continued from page 619, vol. ii., 1863.)

THE second division of Vital Statistics for Ireland reports upon the number and condition of the blind; and, in fulfilment of our expressed intention, we now revert to it. In 1851, the first authorised special investigation of this question showed 7587 blind persons in Ireland, to a population of 6,552,385, or about 1 in 864. Such a high proportion may have depended on the epidemic ophthalmia of the three previous years, and on the exodus of the healthy. In 1861 a gross return of 8088 blind was reduced, on special inquiry, to 6879—namely, 3149 males and 3730 females—a total which, though less than that of the previous decade, stands, to the still more diminished population of the country, in the increased ratio of 1 in 843. On an extended inquiry respecting the different countries of Europe and America to the number of twenty-one, it was found that the united ratio was 1 blind in 1267 persons, a proportion, however, compounded of many, the limits being 1 in 2489 in the States of America, and 1 in 540 in Norway. This last very high relation is attributed by Dr. Richter, of Christiana, mainly to the absence of special ophthalmic Practitioners in that country.

Of the 6879 persons given above, 2947 were educated; 3690—1811 males, and 1879 females—were married. A curious table shows the previous or present occupations of this class. 358 were farmers and proprietors of land, 333 agricultural labourers, 476 knitters and netters, 180 basket-makers, 206 servants, 317 mendicants, and 3519 unspecified. The other figures are somewhat vague, from the fact commented on in the Report, that some callings were those followed before blindness, and some acquired afterwards. The latter is perhaps almost entirely the case with the 507 musicians of the table; these were returned as performers on the violin, bagpipes, harp, organ, flute, and piano, and are classified as ministering to amusement, although, from metropolitan experience, perhaps "torture" would have been a more correct designation.

Nine institutions for the blind are tabulated—4 for males, 3 for females, and 2 for both sexes. They accommodate 222 men and 218 women. The heads of their education are stated briefly; reading with raised letters, history, geography, and simple handicrafts forming its main elements.

In 6341 cases, the secondary question of congenital blindness was answered; 211 persons—118 males and 93 females—having been blind from birth. The causes of blindness furnish another table: ophthalmia standing for cause in 1962 cases; small-pox in 725; cataract in 416; cerebral and nervous disease in 322; accidents in above 500, among which are no less than 11 from lightning; and fever, rheumatism, amaurosis, and old age, with several other agents for a smaller number. Some valuable facts as to hereditary blindness, the want of special Hospitals and asylums, and education, conclude this section.

The statistics of the lunatics and idiots, as also of the lame and decrepit, though of the deepest importance, must, from their very fulness, be left for completer examination in their special points of view. The fifth section, on the number and condition of paupers in workhouses on the night of April 7, 1861, gives 50,010 as a general total, the excess slightly on the side of the females, and the proportion 1 in 116 to the whole population.

The sick in Hospitals, standing sixth in the contents, were divided among 35 infirmaries, 39 fever Hospitals (instead of 61, as at the previous census), and 2 special Hospitals—one syphilitic, the other ophthalmic. Nine lying-in Hospitals are, moreover, enumerated. The ratio appeared to be 1 Hospital bed to every 899 of the population not otherwise provided with in-door relief of a charitable nature. The number actually in Hospital was, however, relatively much smaller; namely, 2993 in all—a great diminution from the preceding census—fever cases alone sinking from 1117 to 356. After tables of age, sex, religion, and occupation, there is an excellent conspectus of diseases under eleven clear headings. The first class, of epidemics and endemics, contains 657. The second, of sporadic, under nine subdivisions, gives for brain, nervous system, and organs of sense, 154; for circulatory organs, 73; for respiratory organs, 344; for digestive organs, 187; for urinary organs, 60; for generative organs, 102; for locomotive organs, 624; for tegumentary organs, 316; lastly, as diseases of uncertain seat, 252. The third class, of accidents, contains 173. Unspecified cases, to the small number of 51, make up the general total given above. This table is eminently practical, and free from the mysterious nomenclature which figures in some similar documents.

Other charitable institutions furnish the seventh, and the inmates of prisons the eighth section. The ninth, and last, is devoted to the general summary of sick in Ireland, whether at home or in workhouses, prisons, and infirmaries. Fever still contributed 9822 to this category; influenza, 2330; measles, ophthalmia, and others, smaller totals. Sporadic complaints supplied 28,939 patients, 7056 being cases of insanity. Consumption returned 2650, a figure decidedly below our expectation, standing as 1 in 29 to the total sick. Among the Irish in London, probably the proportion would be much higher. On the other hand, 433 cases of cancer show the comparative rarity of this disease.

It need only be remarked in conclusion, as will have been gathered from our cursory extracts, that this document presents an excellent specimen of statistics, honestly manipulated, is very creditable to its compilers, and has a greater value from showing no trace of personal bias, or of foregone conclusions.

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FROM ABROAD—THE WRITINGS OF THE INSANE—HYPODERMIC INJECTIONS SUPPLEMENTARY TO CHLOROFORMISING—TREATMENT OF HYDATID CYSTS OF THE LIVER.

M. Brierre, the distinguished French alienist Physician, in a recent communication, makes some interesting observations upon the writing of the insane, in relation to diagnosis and legal Medicine. First, the handwriting itself is found to be different in maniacal excitement, monomania, and melancholia. In the two first of these conditions the writings are crowded with capital letters, placed in all parts of the words, which are underlined with excessive frequency. This feature is of importance if observed in those who have already been mad, as indicating a certain return of the malady; and when existing in documents, however carefully these may be otherwise drawn up, it is a proof of the existence or return of disease. Sometimes the letters are filled with flourishes and erasures, and at others they are singularly arranged, consisting in part of fragments, difficult of comprehension, and mingled with cabalistic signs, a kind of hieroglyphics, probably having their signification to the lunatic. In melancholia the words are slowly traced, and are frequently of unequal size and unfinished. Dementia and general paralysis are recognised in the trembling writing, inequality of the lines, graphic signs, the forgetfulness of words or letters, a tiresome repetition of the same expression, incoherence of ideas, and an omission of some of the parts of speech. Remarkable exceptions, however, exist; persons in an advanced state of general paralysis having, in some instances, been able to produce well-written letters to the last. With respect to composition, the letters of lunatics written during the course of their disease, or in the intervals of paroxysms, are sometimes admirable productions, full of reason and healthy sentiments, and well calculated to deceive jurists and the public. At a recent trial for parricide, a letter was produced, in which the passion of love was painted in so simple, touching, and honest a manner, that it was at once pronounced it could not have been the production of a lunatic, until it transpired that the object to whom it was addressed had, two years before, become a wife and a mother, circumstances only to be forgotten by a madman. In another case, a lady, long the subject of maniacal excitement and nymphomania, addressed letters, models of affection and religious devotion, to her children. In the face of instances like these, great must be the surprise felt at the facility with which magistrates and men of the world pronounce upon the question of lunacy; while those who are constantly in the company of the insane are confounded by these anomalies of the intellect, which remain for them unfathomable mysteries. The general conclusion to be drawn from the above observations is, that the handwriting of the insane may supply useful material for diagnosis, and that it is an entire fallacy to suppose that reasonable letters cannot be written by lunatics.

A committee of the Versailles Medical Society has just made a report upon an interesting subject. Professor Pitha related a case in 1861 in which, after chloroformising the patient in vain, he induced twelve hours of complete and placid narcosis by injecting twenty grains of belladonna extract into the rectum; and recently (*Preuss. Med. Zeit.*, No. 47) Professor Nussbaum communicated an account of the prolongation of chloroform anæsthesia by the hypodermic injection of morphia. While the patient was under the influence of chloroform he injected one grain of the acetate, and the patient did not arouse, as is usually the case after chloroform inhalation, but remained in a most tranquil sleep during twelve hours. So sound was this sleep that even pricking with needles and knives and burning failed to arouse him. The Professor has since repeated the experiment in various other cases with the most complete success; and in one of these the result was the more remarkable inasmuch as the same dose of morphia unaccompanied by chloroform narcosis scarcely induced sleep at all. In two of the cases, half a grain of morphia induced, after chloroformising, from five to six hours' tranquil sleep. The Versailles Committee have made some experiments upon the matter with dogs, and although these have been few in number, they feel themselves able to report (*Union Méd.*, Feb. 25) that the prolongation of chloroform anæsthesia by means of hypodermic injection of the salts of morphia may be regarded as an established fact.

The Paris Surgical Society has lately been occupied in discussing the treatment of hydatid cysts of the liver. A case was related by M. Boinet, in which he stated that he had adopted a new and certain means of treatment. As this turned out to be merely the incision of the tumour, keeping an elastic catheter permanently within its cavity, and injecting iodine, the pretension naturally met with much resistance. M. Giraldès, so familiarly versed in Medical literature, at once showed that this treatment had no claim to novelty, and stigmatised its designation sure and infallible as an unscientific procedure. The case related had been well treated by the iodine injection, and is an interesting clinical fact deserving of record; but that is a very different thing to admitting it as exemplifying any novelty of treatment. M. Dolbeau took the same view; and believes that the treatment of hydatid cysts of the liver is still a laborious and extremely difficult matter. He has met with several cases and only one cure. In fact, the disease is generally incurable, except in the case of children, who recover by all means of treatment, or even in spite of treatment. There is no need of new procedures, which are, in fact, only too numerous; for the danger does not consist, as has been supposed, in the penetration of the fluid within the cavity of the abdomen, which may be easily obviated, but in the penetration of air into the cyst, and the consequent putrid infection. In M. Dolbeau's opinion, the Surgeon's indication in these cases should be for the most part expectative. Their course is extremely varied, and they are rarely solitary, while in some cases they undergo spontaneous cure, as when a communication is opened between the cyst and the bile ducts. Our object should be to counteract inflammation, and we should only operate when the rupture of the cyst seems imminent. M. Richard considered that M. Boinet had confounded injection and *lavage* of the cyst, and yet the two should be distinguished. By the former we imply the throwing in of an irritative fluid, with the intention of causing inflammation and producing adhesion and obliteration, while by *lavage* we simply wash out matters which might prove mischievous on decomposition. He does not go so far as M. Dolbeau in recommending mere expectation, having met with success in some cases from the employment of capillary puncture followed by iodine or vinous injection. M. Boinet replied that he had characterised his mode of treatment as certain from analogy, having met with so much success from it in treating ovarian cysts. He only treats unilocular cysts by this means and cysts which are not of old date; and thus limited he deems it a certain method, although he has only employed it in two cases. He believes that the great point is to establish adhesion between the cyst and the walls of the abdomen by the agency of the elastic catheter left in; and then, having formed a counter-opening, to effect obliteration by iodine injections. Capillary puncture and injection will suffice as long as the fluid is not purulent, but when inflammation has seized the cyst and suppuration has set up this is no longer the case. The iodine does not act as an irritant, but as a powerful modifier, limiting the amount and correcting the character of the secretions. M. Velpeau reverted to the distinction which should be maintained between injection and *lavage* by iodine. The injection of closed cavities, as the joints, etc., with iodine is a very innocent procedure, while the *lavage* or injection of a cavity open to the air may give rise to the severest accidents. M. Voillemier regarded the statement that iodine is not an irritant, but a modificator, as a mere play on words; and he strongly deprecated M. Boinet's procedure as very uncertain and hazardous, and as greatly inferior to the caustic treatment introduced by Recamier, and frequently attended with success.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF STAFFORD.

(Continued from page 240.)

THE STAFFORD INFIRMARY.

Points of Practice.

In the *fever cases* of the typhoid type, two of the Physicians, Drs. Day and Wollaston—to whom for endless kind services I am most sincerely obliged—rely mainly on the *mineral acids* for treatment. They also ventilate very freely, and the wards are kept clear and orderly. I regret I had not the opportunity of seeing Dr. Harland, and of asking his experience in regard to fever. In the Hospital practice generally *blood-letting* has fallen into disuse; venesection has not been performed for many years past. The use of *alcoholics* is, as we have seen, very limited, and I could not hear of a single instance in which alcohol had been relied on as a direct curative agent. The Brunonians and Sangradians are here alike obviously out of court; and as regards the two great arguments of stimulation and depression in the treatment of disease, he would be a clever man who would find evidence in favour of either in the Stafford Hospital. For my own part, I am glad to see the Stafford Practitioners so bold in their negation of theoretical art, and so staunch in their affirmation of natural art; not that Nature is always curative, but that in the main she may be trusted, and that to trust her is preferable to an extreme on one side or the other, and even to the principles which a merry old school-man once taught me as a practical doggerel, easy to remember and strictly to the point:—

"When I bleed and do not feed,
Oft I kill.
"When I feed and do not bleed,
Lost my skill.
"When I bleed and also feed,
I succeed."

A practice about which there is an unmistakable leaven of truth, but which is none the less commendable on that account.

Of *special remedies* I have not much to say. Dr. Day has been using for some months past the *peroxide of hydrogen* as a remedy in phthisis pulmonalis, and in whooping-cough. In a report as to the effects produced, which he has been so good as to send to me, Dr. Day states that in phthisis the peroxide, according to his experience, has invariably the effect of reducing the frequency of the pulse, and of modifying the night sweats. In some patients where there has been dyspepsia it has produced some degree of flatulency, but in the majority of cases the appetite has decidedly improved under its use. In whooping-cough Dr. Day considers that the peroxide is very valuable, more useful than any other remedy he has employed. He does not, at the same time, claim for it specific properties in the treatment of either of the diseases named.

The Medical Library.

The library of the Hospital is a large, well-lighted, handsome room. Its shelves hold about 2300 volumes, some of which are very good and classical works; the library, however, is not kept up, and the scholar would look in vain for the means by which he could arrive at the history of modern progress in Medicine. Efforts have been made to improve the library and to extend the advantages arising from a central library to the whole of the Practitioners in the town and neighbourhood, but as yet there has been no satisfactory response, although the committee of the Infirmary subscribe £5 a-year towards the purchase of literature.

Before leaving the library, I may add that there is in it an admirable portrait, painted by Gainsborough, of one of the early promoters of the Infirmary, "John Eld, Esq." Those who delight in discovering new points of art in every "Gainsborough" that comes before them, will find in this picture that the artist has given a specimen of his highest and most perfected skill. For tone, colouring, expression, and position, a finer portrait from the same hand could hardly be found.

There is no *Museum* attached to the Stafford Infirmary.

The Medical Staff.

The Medical staff consists of three Physicians, three Surgeons, and one House-Surgeon, who resides in the Hospital. Dr. Harland, Dr. Day, and Dr. Wollaston are the Physicians; R. Hughes, Esq., W. E. Masfen, Esq., M.B., and F. E. Weston, Esq., are the Surgeons; C. Greaves, Esq., is the House-Surgeon.

In concluding this notice of the Stafford Infirmary, I would remark, on comparing it with other county Infirmaries, that, in order to bring it up to a proper level, the following improvements are demanded:—

1. A more perfect system of drainage.
2. A more effective ventilation.
3. A more effective and economical system of warming.
4. A change in the vessels used for food, from metal to earthenware.
5. The erection of a proper set of baths.
6. A stricter attention to what may be called the comfort of the sick; some little artistic decoration in the wards, and a greater cheerfulness.
7. A museum.
8. A complete registry of the whole of the Medical and Surgical practice.

THE STAFFORD DISPENSARY.

The Stafford Self-supporting Dispensary was established about the year 1861; there is no dispensary house, and the cost of the organisation was simply *nothing*. The major part of the Medical men in the town having agreed as to the principle met and published their scheme. The plan is very simple,—all who subscribe to the Dispensary are, if approved of as suitable members, allowed to select their own Medical attendant, and to consult him and receive medicines from him precisely as though he were the private Medical man. At fixed periods the board meets, and the fees are divided amongst the Medical staff in proportion to the amount of work done.

Whatever may have been the effects of the free Dispensary system in other towns, it certainly has worked most admirably in Stafford. At the present moment, nearly every Medical man in the town has, I believe, consented to be on the staff; the junior men have realised from the Dispensary a respectable income, which would either have been thrown away in gratuitous advice or have been thrown over the counter of the prescribing druggist; while the senior men are simply relieved of a great deal of unnecessary and unpaid trouble. During the first year of the Dispensary no less than £80 was divided amongst five Medical men, and during the present year that division will probably have doubled in value. Neither are the advantages confined to the Medical men; they extend to the patients, whose independence is challenged, and whose thrift is encouraged by an institution which gives them what they want without stint, and allows them to pay for the services rendered in sums which are within their means, and which, when allowed to accumulate, are not to be sneezed at by any Esculapian.

As the success of this provident Dispensary may be considered perfect, and as in many other towns the Medical men may wish to found similar institutions upon it, I subjoin the rules by which the Dispensary is governed.

"The members are to be honest, industrious, working persons, not receiving parochial relief, but unable to pay for Medical attendance in the ordinary way, and willing to subscribe for themselves, and to conform to the following rules, etc.:—

"They shall apply for admission to the Secretary, or to one of the collectors, who shall enter their names, occupations, and places of abode. Their application will then be taken into consideration by the Committee, and, if found eligible, they must attend again at the next meeting of the Committee, to be enrolled, and to receive their tickets. The tickets (when required) to be signed by the Secretary.

"Each member shall pay one penny per week; or, if more agreeable to them, they may pay their respective subscriptions in monthly, quarterly, or annual payments, in advance.

"If any member should be discovered by the Committee to be ineligible to the benefits of this institution, his or her name shall be erased from the books.

"Persons cannot be admitted as members when sick, unless they pay the whole year's subscription in advance, and bring with them one eligible adult person, in health, to be entered as a member; and in this case only when the illness is recent.

"If members suffer their subscriptions to be in arrear one month, they shall be fined one penny; if two months, threepence; and if three months, they shall be liable to be expelled; and no member shall be entitled to the benefits of this institution whose subscription is in arrear.

"In midwifery cases, poor married patients shall pay an entrance fee of two shillings and sixpence, and a subscription of threepence a week, or one shilling per month, for six

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months in advance. The remaining sum of two shillings, to make up ten shillings and sixpence, shall be paid to the Surgeon employed out of the funds of the Dispensary.

"All patients must furnish themselves with clean bottles, and with bandages, etc., when required; and, when the nature of their illness will permit, they must attend at the residence of their respective Surgeons from eight to ten o'clock in the morning; and if they cannot attend personally, they must send their tickets without delay.

"The tickets of all classes of patients will be available for one month from the time of their date; and no patient will be at liberty to change the Surgeon under whose care he shall first place himself, during the same illness, unless such illness should continue for a longer period than one month; but he will at all times have the privilege of a consultation of the Medical officers of this institution with the consent of the committee.

"Members living within one mile and a-quarter of the Shire Hall, Stafford, may, in cases of necessity, be attended at their own dwellings. Members may choose their own Medical attendant from any of the acting Medical officers of the institution."

Through the kindness of Dr. Day and Dr. Masfen, I am able to append the report for the year 1863. This report, which has not before been printed, but is now in course of publication by the Committee, has reached me since I penned the first part of this section. It will be seen that the prospects suggested above have been fully realised.

"*Stafford Dispensary Annual Report*, 1863.

"This institution is now entering on its third year, and such has been its progress, and the favour it has found among those for whose especial benefit it was established, that, since the Committee issued their first annual report, within the last twelve months, the number of subscribers have gradually been doubled.

"The objects of the Dispensary are, to enable the working class to provide themselves with Medical and Surgical assistance when necessary, under the denomination of 'free members,' at the mere nominal cost of one penny per week; to provide similar attendance for poor persons, who, being unable to subscribe themselves, shall receive tickets of recommendation from honorary subscribers; to provide Medical attendance for poor married women during their confinement; and to consult the feelings and comforts of all, by allowing each member the choice of any of the Medical officers, and by providing them with *attendance at their own homes*.

"In 1862 the free members subscribed £87 7s. 6½d., and the total for that year, with honorary subscribers, amounted to £97 7s. 7½d. In 1863 the free members subscribed £164 0s. 10½d., which, with the honorary subscriptions, made up the total to £184 16s. 1d.

"*Total Number of Cases attended by the Medical Officers.*

	1862.	1863.	Increase in 1863.
Midwifery tickets . . .	12	36	24
Honorary subscribers' tickets.	42	67	25
'Free members'' tickets .	832	1851	1019
Total . . .	886	1954	1068

PAROCHIAL MEDICAL RELIEF.

The parochial Medical relief of the Stafford Union is divided amongst four Medical officers, Messrs. Perrin, Tylecote, Weston, and Masfen. The stipend of each of these is £45 annually. Mr. Perrin's district includes an area of 17,813 acres, and a population of 6837. Mr. Tylecote's district has an area of 17,135 acres, and a population of 4033. Mr. Weston's district has an area of 16,404 acres, and a population of 2529. Dr. Masfen has the town district with an area of 1,282 acres, with a population of 11,075; in connexion with his district, Dr. Masfen also holds the Union Workhouse. I could not gain any positive information as to the average remuneration of these Medical gentlemen, per case.

THE UNION WORKHOUSE.

The Union Workhouse, situated at a distance of nearly a mile from the town, affords space for 180 inmates. It is in a deplorable sanitary state. There is an Infirmary attached, but with few necessary conveniences for the sick. Through the whole of the building drainage is deficient, and but for the porous nature of the soil it would be difficult to account for the removal of the water at all. There is a cesspool, but the privies do not communicate with it, and the whole refuse of the place is allowed to accumulate on the premises. The water supply is from wells; the ventilation everywhere deficient; the flooring of the apartments, even of the sleeping apartments, in most instances is either of plaster or dark brick, cold, damp, and pitiless. The diet is of the regulation standard, or a little over it; Dr. Masfen thinks it is above the requirements of the inmates.

The school of the Workhouse is at the back, and is a wicked disgrace. The rooms are small low buildings of brick, like air-tight boxes. On entering upon the boys' side I could hardly believe my senses. The unhappy Dominie was at his large slate, teaching away, and looking like the spectre of a man, so pale and thoughtful; the children were equally ashy, and they said their says with a feeble drawl, interspersed every now and then with a faint caw, as though existence were too much of a burthen to be tolerated together with the culture of the art that came from Cadmus. As to the air of the place, let me not dwell on it, much less in it. It was hot, it was sharp, it was dry; it was pervaded with particles of diffused fustian and corduroy; there was a marked, though extremely delicate, odour of sulphuretted hydrogen, and an equally refined indication of the presence of dead fish that had not been hermetically sealed up. What if one could have seen as well as smelt the whole contents of that loathsome atmospheric well? The carbonic acid knee deep; the sulphuret in wavy lines gradually diffusing itself: the millions of particles of dust from garment, and desk, and floor; the myriads of organic forms flying hither and thither; settling on heads and finding quarters there; settling on skin; creeping under epidemic scale and burying there; jostling into the mouths and nostrils of those yawning children, and making explorations into their lungs and stomachs: flitting into their weak lashless eyes and drinking up their moisture: and anon enveloping the Dominie, and mocking him in his toils. Some day, perhaps, science may give us these insights, so that even the managers of the poor may be taught to see. Sufficed it for me to smell only and think, and as soon as possible leave to re-enter the great school-room of the Most High, the clear, open firmament: but it was not for many hours afterwards that I forgot that worthy schoolmaster in his premature vault, trying in vain to light up the intellectual fire without any oxygen to support the combustion.

Of course, under conditions such as have been named, there must be disease, especially amongst the children. I looked, in fact, and in vain, for one specimen of a healthy child. They are all anæmic, and amongst them skin diseases, eczema, pustular itch, and strumous ophthalmia have fine scope for development. Consumption is also common in the house, and there have been recently two outbreaks of typhoid fever. By attention to diet, Dr. Masfen has managed to reduce the prevalence of the affections of the skin, but he is placed like Sisyphus, and unaided cannot meet the overwhelming evils. Meanwhile, the Poor-Law Board hears and forbears, anxious perchance, in the interests of science, to sustain an establishment where the synthesis of disease may be seen on the most approved and comprehensive scale.

CLUB PRACTICE IN STAFFORD.

The sick clubs in Stafford are numerous. They consist principally of Odd Fellows, Foresters, and Druids. These institutions are well managed, but the pay to the Medical men is extremely small—2s. 6d. per head for the year. Lately there is a disposition shown to raise the sum to 3s., and if the representatives of the clubs were to double that, they may be assured that in the end they would be the greatest gainers. Benefit insurance companies have been tried in the town with unsatisfactory results as regards the poor.

LITERARY AND SCIENTIFIC INSTITUTIONS.

There is no Medical scientific society in Stafford, but there is a general institute and reading-room, known as the St. Mary's Church Institute. This is held at the St. Mary's Schools, and the rooms are open every evening from 5 to 10 o'clock. Games are allowed for the amusement of members, lectures are delivered, and a French class has been formed. Females are admitted to the use of the library and to the lectures. Thomas Salt, Esq., M.P., is the president of the Institution.

CHARITABLE INSTITUTIONS.

The charitable institutions of the town are numerous. I have not space to dwell at length on these, but the following abstract supplies the leading facts:—

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Abstract Report of Stafford Charities.

Name of Charity.	Annual Income. £ s. d.	How Distributed.
Isaac Walton	50 0 0	To bind out two boys, sons of honest and poor parents, to be apprentices to some tradesman, £10.
Ditto	8 2 10	To some maid-servant, not under 21 years of age, having been long in one service; or to some poor man's daughter of that age, to be paid to her on the day of her marriage, £5. The remainder in coals to the poor.
Free Grammar School	316 2 10	After necessary repairs, two-thirds to the Head Master and one-third to the Usher or Second Master.
Queen Elizabeth's Charity	1260 5 8	Rector of St. Mary's, £340 per annum; Curate of St. Mary's, £170 do.; Curate of Marston, £100 do.; Head Master of King Edward's School, £4 5s.; English Master, £100 per annum; repairs of Church (St. Mary's), and cleaning the Church and chancel and bells and ropes; salaries to Organist, £45 5s.; do. to Beadle, £10.
Sir Martin Noel's Charity:— John Chetwynd, Mrs. Arnett, Philip Foley, Thomas Foley, Dr. Binns.	40 6 0	Paid to the poor in the almshouses, 15s. 6d. per week.
Rev. Robert Sutton ..	7 18 4	One noble each to four scholars of Free School; 6s 8d. to Rector for sermon yearly; £2 to forty poor widows do.
Lady Barbara Crompton, of Creswell.	2 0 0	Four poor widows yearly.
Robert Levett	1 10 6	Poor of parish of St. Mary's and St. Chad's yearly.
Rev. Richard Startin	2 12 0	In bread in St. Mary's Church weekly.
Rev. Robert Palmer ..	0 6 8	To two poor widows, two houses for life; Rector of St. Mary's for sermon, 6s. 8d. yearly.
Mr. William Farmer; Rebecca Crompton.	13 10 0	Six poor widows, 5s. each yearly; remainder in coals to almshouses.
Mr. John Webb's Charity.	2 0 0	Twenty poor widows.
South Sea Annuities ..	21 6 4	£2 a man to each of poor burgesses, in rotation, yearly.
Mr. Simon Fowler ..	12 0 0	180 poor persons, 6d. each, £4 10s.; sermon, 10s.; 180 poor persons, 6d. each, £4 10s.; sermon, 10s.; two poor men for cloaks, £1 each.
Stafford Soup Kitchen	841 18 10	This institution provides lodging-rooms for infirm persons out of work; gives soup and bread; loans blankets; pays a mission woman; utilises cast-off clothes for the poor; and allows donations of money in special cases.

In addition to these there is a County Asylum at Stafford, which might be ranked amongst the charities. But of this Institution I have so many practical facts before me, that a notice of them, in abstract, would be inadequate. The description of the Asylum will be rendered next week..

COMMENTARY ON HOSPITAL MORTALITY.

The facts stated at the close of my last paper, on the subject of the mortality of the Stafford Hospital, lead me to add a column or two on the question of Hospital mortality altogether. I do this, not from any desire to enter into controversy on a question which really admits of little controversy when prejudice is removed, but because, in order to stand right with the reasonable part of my brethren, I would clear away certain misrepresentations, or assumed corrections, which have been made in reference to this history. In the Medical history of Norwich the position was taken that, *cæteris paribus*, the mortality after important Surgical operations, such as lithotomy, is less in the country Hospitals than in the large metropolitan Hospitals. In respect to the one operation named above, lithotomy, Mr. Thompson has objected to a comparison which I drew between the London Hospitals and the Hospital at Norwich. He does not dispute that during a period of ninety years the mortality after lithotomy in the country Hospital has been 1 in 7·71; he does not dispute the startling fact that, twice over, *forty* cases, taken as they came, were operated on for stone in two distinct series without the occurrence of a single death; but he argues from certain statistical facts of 520 cases of lithotomy which he has collected from three London Hospitals, that results equally good would have followed if the same cases operated upon in Norwich had been operated upon in London.

In reply to Mr. Thompson, I observe that in speaking of the "metropolitan" Hospitals I included not any given Hospital, but all the large Hospitals, thirteen in number. In comparing the facts, I took for the metropolitan side the only reliable data I could obtain, viz., the tables published in the *Medical Times and Gazette*, on January 8, 1859, and on August 20, 1859. In the tables thus supplied there were offered to us the particulars of 186 operations, being the whole Hospital practice of London for lithotomy during a period of three and a-half years.

In striking the comparisons required, a difficulty immediately presented itself. In the Norwich cases, 910 in all, 36 per cent. were in children under 10 years of age, while in the London cases, 186 in all, over 58 per cent. were under 10. It was essential, therefore, in order that the start might be fair, to exclude these cases, and to take up cases over 10 years where ages were equally divisible. On this basis we find that the deaths in London ran as follows:— Between 10 and 25 years, 7 deaths in 36, or 19·4 per cent., or 1 in every 5 cases; between 25 and 45 years 4 deaths in 8, or 50 per cent., or 1 in every 2; between 45 and 60 years, 9 in 17, or 52·8 per cent., or more than half; and between 60 and 75 years, 12 in 16, or 75 per cent., or 3 deaths in every 4 cases. Let, now, the reader compare these facts with those rendered in the table of the mortality in Norwich, given in the *Medical Times* of January 9, where the deaths are stated in decennial periods of from ten to eighty years. He will find that the highest mortality occurring between the years even of 70 and 80 is only 1 in 3; between 60 and 70 years, 1 in 3·71; between 50 and 60 years, 1 in 5·5; between 40 and 50 years, 1 in 5·27; between 30 and 40 years, 1 in 15; between 20 and 30 years, 1 in 14·75; and between 10 and 20 years, 1 in 10·5. To be plain, if *four* men, aged 70 to 75, were operated on in London, 3 would die; if *three*, aged 70 to 80, were operated on in Norwich, 1 would die; or if 2 men of 45 were operated on in London, 1 would die; but if *five* men of 45 were operated on in Norwich, only 1 would die. Taking the mean of deaths by these calculations, I could arrive at no other conclusion than the one I did arrive at,—that if the operations for lithotomy performed in the Norwich Hospital—910 operations in 90 years—had been brought promiscuously to the metropolitan Hospitals, and operated upon in them, the deaths would have been 472 instead of what they were—118. I see no reason to retract that statement, the less so when I recall that in the years when the London statistics were taken the internal condition of the London Hospitals were very much better than they were in the first half of this and the latter part of last century. Mr. Thompson may dispute the accuracy of the statistics of the lithotomy tables from the three years and a-half of London practice; if so, we must agree to differ; for I know the Surgeon who collected the facts, and I have implicit reliance on his scrupulous accuracy. Mr. Thompson may urge that the experience of three years and a-half is insufficient; I should be very happy on my side of the argument if the records could be traced back to the practice of the thirteen London Hospitals from this day to the year 1774, when the Surgeons at Norwich first began to cut for stone. He may say that the practice of one or two Hospitals has turned the scale so determinately against London, and that point I shall not dispute with him; and, certainly, I shall not urge that it was the bad manipulative Surgery that led to the descent of the large black metropolitan pall. That Mr. Thompson should have found out three London Hospitals that have yielded results nearly as good as the one at Norwich, is necessarily a source of satisfaction to every sanitary reformer; and I shall be delighted to see him take into his tables the whole remaining ten Hospitals. Perhaps in twenty years' time he may do so, but not now.

A second point I have urged is, that it is the duty of all Practitioners to be up and inquiring why there should be so large a mortality after lithotomy and after capital operations altogether. In this inquiry, the best method is, to determine first what the varying mortality does *not* arise from, rather than speculate on any one special cause. 1. It is not luck; it is common to say so, but the saying is nonsense. When forty cases were cured by forty operations at Norwich, there was some particular agency underlying the fact which was in action throughout; and so in every case, for what has once occurred can always occur again, the conditions being the same. 2. It is not operative skill, for in a run of cases that must be, in the main, the same. 3. It is hardly the operation, because, in lithotomy, one operation is, as a general rule, performed. At the same time I must admit, in fairness, that the Norwich results would probably have been slightly better had the median operation never been introduced. 4. The result can scarcely depend on the size of the stone, although that argument has been adduced.

5. The age of the patient cannot determine sequence in every case, seeing that, in different Hospitals, the results at the same ages are widely different. 6. The result, good or bad, cannot be referred purely to the condition of the patient or the selection of case. This has been affirmed, I know, but surely the conclusion is not sound. In my experience I have never seen more ill-fed and anæmic specimens of humanity than the poor of Norwich. The London poor appear better provided for and better housed; and London patients in Hospital look healthier; while it is well known that in the Norwich Hospital the Surgeons cut as boldly as any in the world. They, at all events, never send a patient away, incurable with stone, to die, after lithotomy, in another institution.

Thus driven back, there remains only one cause for the greater success in Norwich than London—only one cause why in Norwich eighty patients have been operated upon with a result of two deaths, and why in London, with all its skill, no such result has ever been approached; and that cause is the salubrity of the country Hospital. In saying this, I would put it forcibly forward (in special correction of the entire misconstruction of my previous argument advanced by Mr. Holmes) that this difference of salubrity is not because one Hospital is in Norwich and another in London; not because Norwich air, *per se*, is better than London air; but because the Norwich Hospital is removed from the low and crowded dwellings of the poor, and because, in its construction, Benjamin Gooch arranged for 1215 cubic feet of space per bed, and for constant and perfect natural ventilation. Here is an Hospital at Norwich that is never crowded; here is an Hospital that is never pent up; here is an Hospital where the patients are never perplexed by the gaze of a crowd of students; here is an Hospital into which the Surgeons and Dressers never enter with their hands and clothes redolent of the dissecting-room; here is an Hospital that never receives air devitalised by having become charged with organic impurities; and in this Hospital we have certain results for ninety years, results nearly uniform, which carry with their mention the idea of a success that never comes to the metropolitan nor to any other Hospitals where the advantages stated above are disregarded and absent. Is there anything wonderful in this? Is it wonderful that lithotomy cases should be unusually "fortunate?" Is that fact more wonderful than another fact, that in the same Norwich Hospital, in the year 1861, the mortality of the practice altogether should have been 36·00 per cent., while the mortality of the London Hospitals was 90·00. I make these observations from no desire to decry London practice and London Surgery; if I had the full evidence in hand I might probably illustrate from Manchester or Glasgow as readily as London. But I write as seeing an evil in certain Hospitals beyond the good they do. I write as seeing brilliant Surgery condemned to ignominious burial because the light, so startlingly exhibited in the operating theatre, is carried straightway into an atmosphere, and is surrounded by conditions, in which it cannot live. Were I a Surgeon, I should like to stand up before my peers and say, I have reduced the mortality of an operation from 50 per cent. to 5; and what harm could there be in such an ambition? But suggest the thought, as it is, and the Surgeons bristle up and put out their long knives at right angles to their bodies, and brandish their forceps and their splints, and exhibit the actual cautery, as if some one was invading their province with intent to harm. Much better, I take it, for them to lay all their glittering toys quietly aside and look at the externals and study facts, and ask: Is it really true that if we amputate a thigh or cut for stone in an Hospital containing 300 inmates, the probabilities that the patient will die are as a hundred in such Hospital to forty-seven in another Hospital containing but 100 inmates, or perhaps to twenty-seven in an ordinary house? Naturally, the day will come when we shall all meet, shake hands, and agree on these points; naturally those who write warmly on extant evils are subjected to criticism; naturally these speak strongly when they hear what they hear: a judge on the bench, primed to utterance by Surgical authorities, adducing, for instance, that huge demi-charnel-house, the misnamed "Hôtel Dieu,"—where, if three men enter for operation, you may predict that one will come out of the ordeal dead as surely as if he were going to execution—as one of "the largest and healthiest of Hospitals," on a model site! Yes, opposition and criticism are very natural, but happily they cannot last. Let but one or two enterprising Surgeons build a model Hospital near to London, where each sick man will have a separate room, good air, perfect quiet, no taste by inoculation of dead man's poison, no dying comrades within sight, and no incessant noises to disturb the sleep, and though the Surgeons have neither the hands nor the experience of a Liston, Fergusson, Syme, or Thompson, they will soon show a balance-sheet before which the present infatuated defence of a vicious system must dissolve.

I know that great buildings are very difficult to knock down; they have material foundations, very deeply laid in the earth; they are wonderful arenas, in which the ruling principles and passions of busy men can display themselves. But for all that they are doomed. They are doomed, because a much simpler organisation will replace them, and prove itself superior in the one great and sole object for which a sick Hospital should be founded—the extension of human life. (a)

B. W. R.

PROVINCIAL CORRESPONDENCE.

BIRMINGHAM.

February 28.

In the long interval which has elapsed since the readers of these columns were informed, by your correspondent, of our Professional workings, a movement of the greatest importance has been set on foot—an inquiry into our local Charities. I had hoped to have been able to record the result long before this; but that must be a desideratum for a few months longer. Matters have, however, advanced so far, that it is possible to sketch the history of the movement, and to indicate its tendency, with tolerable completeness, and without risk of serious error.

The great fact which first forced itself on the attention was the heavy indebtedness of our Hospitals and minor Medical charities, the Dispensary alone excluded. The greater the efforts made to raise subsidies, the heavier seemed to grow the liabilities; and this was especially true of the General Hospital—the largest, if not the oldest, institution of its kind in Midland England. Nothing daunted, projectors of fresh charities came into the field. The Children's Hospital was started about three years ago, with the announcement that it was to be a free institution for all deserving objects, and that its management should be so conducted as to steer clear of debt. We boasted of our Ophthalmic Hospital in Temple-row, which we had good reason for regarding as equal, if not superior, to any similar provincial institution in Europe; and we had an Ear Dispensary, which was one of the earliest institutions founded for the treatment of aural diseases; but this did not prevent another Eye and Ear Hospital being started; and it is most probable that we should have had one or two more "specials on the road" had not a caveat been entered by "Scrutator," (b) in a pamphlet of rare ability; obviously the work of a full and ready writer, it was pregnant with suggestiveness: had its author selected for his model an impartial judge, analysing evidence for the truth's own sake, rather than the pleading of an advocate, who, to win his case, is often compelled to conceal or travesty truth; had his comprehensiveness of grasp been equal to his ardour; had he sacrificed less to epigrammatic style; had he been more logical and less personal, his work would have been more useful and more en-

(a) In last week's *Medical Times and Gazette*, Mr. Holmes made four statements deduced from previous papers in the "Medical History of England." The first of these I have explained above. The second statement is a misapprehension. The third statement is correct on the data supplied to me—the published annual record of the Norwich Hospital. I have referred to that record again, and repeat the statement. The whole mortality for cases admitted under the Surgeons of the said Hospital in 1862 stands as 2·50 per cent; and the whole mortality after Surgical operations (total number of cases, 309) at 3·55 per cent., or 1 in 28·09 patients. The fourth statement is a misrepresentation by Mr. Holmes, not by me. I have not said anywhere that there has only been one case of pyæmia registered in the Norwich Hospital for seven years. I said there had only been one *fatal* case, which is a very different thing. The words which Mr. Holmes has misinterpreted are—"*Looking over the list of deaths for seven years, the word 'pyæmia' occurs but once.*" This is strictly true; and when I wrote the report on Norwich, I did not know that there had ever been a case not fatal. But Mr. Williams has kindly informed me by note that one or two such cases have occurred. The fact is really, however, of no moment in regard to the observation which Mr. Holmes would criticise, seeing that the mortality was not increased by the introduction of pyæmia. On the contrary, it shows what a good Hospital the Norwich Hospital must be to have and to hold pyæmia cases, engendered or accidentally introduced, and yet suffer from no epidemic, nor lose in seven years more than one life. Had the same accidents happened in certain London Hospitals, where would the mischief have ended? I thank Mr. Holmes for that word *pyæmia*.

(b) "The Medical Charities of Birmingham." By Scrutator. Second Edition. Price 1s. W. J. Sackett, bookseller, Birmingham.

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during. But, in spite of all their faults, "Scrutator's" letters were too able, too earnest, to be dismissed without consideration. They contained many errors, it is true, but withal so large an admixture of truth that they riveted attention. They made charges too serious to be ignored, and broached some doctrines too sound and too well-timed to be totally disregarded: they wounded so many susceptibilities, and assailed so much that was time-honoured, that they could not fail to arouse opposition; but conflict of opinion on many questions notwithstanding, it was felt on all hands that the time had come for an inquiry into the Medical Charities of Birmingham.

Although "Scrutator's" attacks seemed inspired by a general desire for knowledge and for the better management of all the Institutions impeached, it very soon became manifest that a great part of the movement was purely strategic;—affairs of out-posts;—reconnoissances of wings;—feigned threats on lines of communication,—with the ripely-studied plan of concentrating all available power on what, rightly or wrongly, was considered the stronghold of defective economical and sanitary administration—the General Hospital in Sumner-lane. It had an annual deficiency of something like £1800, and yet it was proposed to spend £7000 to enlarge it. Its constitution, theoretically representative, was, in practice, said to be oligarchical; and its officers, who had gained their positions by an expenditure and practices in electioneering contests equalled in few parliamentary boroughs, were supposed to be principally zealous for retaining and extending their power, and resisting the growing desire of the public for full inquiry into the alleged excessive mortality of the Institution. To this it was replied, that a Hospital which had admittedly worked an immensity of good, could scarcely be liable to so much censure; that the would-be reformers were men who had never taken much interest in its affairs; and that professional jealousy was not the least powerful of their springs to action.

In truth, the history of the General Hospital, if fairly written, would be one of the brightest chapters in our local annals. Founded by the leader of our Profession, in his day, in the midland counties, appointments on its staff have ever been eagerly sought after by some of our most distinguished Physicians and Surgeons; its Committee of management has consisted of the purest philanthropists and most honourable citizens; and, if great Professional tact and single devotedness were sufficient to ensure the well-being of a great sanitary administration, the General Hospital would need no aid; for at no former period of its brilliant history was its staff more skilled, or its council better intentioned. But experience abundantly teaches how deep learning and large practical knowledge in Medicine and Surgery proper may co-exist, without their possessors attaching due importance to fundamental sanitary laws. Thus it is that Hospitals in which some of the greatest men have worked, and from which they have dictated wisdom to the world, might be cited as illustrations of bad architecture, deficient light, impure air, and their inseparable ills. How often have we seen a Physician learned in diagnostics, little versed in the treatment of disease! nor should we be at fault if called upon to adduce instances of distinguished men, rich in pathological and therapeutical lore, setting at defiance, or at least little heeding, the primary necessity for free ventilation. Surgeons have necessarily been taught to rely greatly on the resources of nature; but they have too frequently forgotten her laws in over-eagerness for operations. An operating theatre has been too literally a correct appellation; and the knife has not unfrequently been relied on, to the exclusion of common sense and philosophical measures for averting its necessity, and practically lessening the risks of its after-consequences. It is the old story: special knowledge is often cultivated at the expense of the general powers of the understanding; and hence the healthy rule to examine and weigh by the laws of evidence and sound reasoning the technical opinions of experts, to whatever profession they may belong.

Whilst great intellectual power and disinterested devotion are essential to good Hospital management, they are not all-sufficient; and it is not difficult to conceive how, under a government of good, and even able, men, complications, if not abuses, may, through a long series of years, have accumulated imperceptibly, and necessitate inquiry for their definition and remedy. A very able and influential committee is now investigating the affairs of the General Hospital. It was moved for with great deliberation by outside reformers, and seconded by one of the foremost men of what, for convenience, though with grateful deference, may be styled the "old party." Some unpleasantness has been occasioned by the fact, that those represented by the mover have, in past years, seemed to take little interest in the affairs of the institution; and it is urged, with considerable force, that the lay reforming element is professionally inspired by genius more brilliant than impartial,—more impulsive than reflective. But it must not be forgotten that men long used to government rarely take the initiative in progressive changes; and it is scarcely fair to charge the members of a legislative assembly, or of a constituency, with indifference to duty, if they remain passive and wait their opportunity, while circumstances appear to render hopeless any attempt at better organisation. It would be a happy state of things if fertility of imagination and judicial impartiality were often combined,—if men of original mind were more frequently calm reasoners and practical administrators,—if mental acuteness and generosity of feeling always co-existed; but as the actual facts are otherwise, it is no use seeking the impossible, or scrutinising causes too closely. If the work to be accomplished be a good one, it must be done, difficulties and disagreeables notwithstanding.

It is heartily to be desired that the inquiry into our local charities may be so conducted that the whole truth may be arrived at, and that matters may be placed on such a footing as most surely to conduce to the good of the people and the honour and usefulness of our body.

GENERAL CORRESPONDENCE.

HOSPITAL MORTALITY.

[To the Editor of the Medical Times and Gazette.]

SIR,—The support which Dr. Farr has given to Miss Nightingale's theories has caused much surprise to those who have estimated very highly this gentleman's talents. The Profession and public cannot, indeed, be too much indebted to Miss Nightingale for the efforts which she is making for the cause of the sick poor, but the want of knowledge displayed both by herself and Dr. Farr as to the practical working of the London Hospitals is very surprising. Speaking from my own personal experience as to the Hospital to which I am attached, I can easily see how the mortality could be reduced to half, or even less, than what it is at present, and this by the most simple process. The plan would be simply to admit slight cases of disease and reject severe ones, and then our wards would be held up as models of improved sanitary arrangements. The practice, however, at every London Hospital is the very reverse of this; if, for example, on the taking-in day a patient should apply with heart disease and dropsy, or, as happened during this last winter, the patient should present himself, livid in the face and gasping for breath, he is immediately admitted. With such cases the beds are soon filled, and three or four die within a week. If, instead of admitting these cases, we were to pass them by and take in the child with chorea, the girl with chlorosis, or the old paralytic patient, our mortality would be reduced to almost nothing, and we should then exult in our excellent sanitary principles, whereby such a result was brought about.

The same rule applies to Surgical patients, whereby the worst cases are admitted; and as regards casualties, this is the rule, without any exception, a large number of persons brought in every week having fatal injuries upon them.

If the question should be whether it were better to reject cases of this kind, and admit such as simple fractures, or to refuse admission to all instances of organic disease of the viscera, and limit admission to those cases which could be cured, it would be an open one for discussion; but whilst the practice is the very reverse, the cause of the high rate of mortality is sufficiently clear. This main cause of the high death-rate appears to be overlooked, whilst the comparatively trivial one of ventilation is paramount in the eyes of Miss Nightingale. Good ventilation, although important, has not, I am sure, one-hundredth part of the influence in altering the rate of mortality as the cause I have mentioned.

As regards cases of accident, although in the most severe ones death is rightly attributable to the injuries received, yet in very many others the previous state of the health of the patient has most to do with the fatal result,—a consideration of the number of drunken persons who meet with accidents will exemplify this. I am not aware that Dr. Farr's statistics throw any light upon the unhealthy conditions of persons who die after injuries. As regards the mortality from pyæmia,

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before this is attributed solely to Hospital atmospheric influence, it would be well for Surgeons to compare cases of operation with those they have in private. Unfortunately for this purpose, the latter are comparatively rare, but I believe Medical men could readily produce many instances of this fatal affection from their private note-books. I know well that some of the worst forms of pyæmia which die in Hospital are brought from the private homes of the poor.

In spite of the apparent contradiction that the value of a Hospital is in proportion to its death-rate, I believe it is a statement of the truth. This is on the assumption that all Medical and Surgical treatment, when taken in a large average, produce the same results; but it is an assumption which can be easily proved to be correct. If so, the number of deaths show the severity of the cases admitted and the wants of the neighbourhood where the Hospital is situated. If the deaths were reduced, it would show that less severe cases were admitted, but whether this would be better for the community may be an open question. It were almost worth while to adopt the plan, in spite of the suffering poor, in order for statisticians to uphold an institution (where such method was enforced) as a model of improved salubrity—an *argumentum ad absurdum*. Much more might be said, but Dr. Bristowe and Mr. Holmes will no doubt put the whole matter in a clear and correct light from their personal and practical experience of the working of Hospitals.

February 29. I am, &c., M. D.

THE NEW HOSPITAL AT WINCHESTER.

[To the Editor of the Medical Times and Gazette.]

Sir,—I attacked the plans of this proposed new Hospital a fortnight ago in your columns. "F.R.C.S." replies that the architect can build pretty churches, and supports his assertion by quoting a *Times'* critic. If "F.R.C.S." and the *Times* think so, I shall not go to school to them to learn architecture. But the building of pretty churches does not happen to concern the question.

"F.R.C.S." supplies me with an argument that I omitted to use. Inexperienced persons, he says, have hitherto tried to build Hospitals, and all have failed; therefore let another inexperienced person try. Rather, I should say, let some person who has gained wisdom from former failures try again.

He must excuse me from answering the remainder of his letter. Indeed, it is scarcely necessary, as he does not attempt to disprove my assertions. He says, by the way, that the Baronet in question has mastered all the details necessary for planning a Hospital, a statement which I will leave to be confuted by the plans themselves.

Allow me once more to notice the disgusting cant which places the venereal wards conspicuously apart from the rest, and disfigures their exterior, in order that the priests and Levites, as they come in to their weekly committees and boards, may have warning to hold their noses, turn up the whites of their eyes, and keep on the other side of the yard.

"F.R.C.S." says something, unintelligible to me, about disappointed persons. He has apparently got a bone, and is growling over it. I fear his views and mine on the subject of Baronets differ *toto cælo*. It may be a very good rule to "take the good the gods provide thee;" but I confess to being a quadruped of an independent turn of mind, and am not inclined to turn an inch out of my course for a Baronet, not even if his little dog barks at me.

I am, &c., Epicuri de Grege Porcus.

CASES OF SUSPECTED POISONING FROM DISEASED MEAT.

Letter from W. B. Kesteven.

[To the Editor of the Medical Times and Gazette.]

Sir,—A few days before I read the elaborate contribution of Dr. Ballard, "On Diseased Meat," published in your Journal of January 23, I met with an occurrence which now seems to me deserving of publication, as bearing upon the remarks therein made by Dr. Ballard, and as illustrative of a very apposite observation in your leader on the same topic in the Journal, November 28, 1863, to the effect that the information that is wanted concerning the unwholesomeness of meat consists in facts, and not in *à priori* deductions.

A family of twelve persons all partook, on the same day, of a leg of pork, roasted; all within a few hours were seized with symptoms of very severe illness, closely resembling English cholera, which continued for from twelve to forty-eight hours. The ages of the members of this family, including servants, varied from five or six to eighty years.

Great alarm was of course excited by such sudden and severe illness. The source of these effects became the subject of anxious inquiry, and they were attributed to the pork. I carefully sought out whether they could be chargeable on anything else that had been taken at the same meal, or during the same day, but I found that the pork was the one thing that all alike had partaken of. Further, it so happened that, in addition to the twelve persons who were made ill, there were, under the same roof, a coachman and his wife, who, being on "board wages," had provided beef for their own dinner on that day. These two, although they had bread, milk, butter, vegetables, etc., from the same sources as the rest of the family, were free from ailment.

I have since examined the remainder of the joint with the microscope, without being able to discover anything like disease. A dog and two cats were fed on the remainder of the joint, and were not made ill in any way. Dr. Alfred Taylor has done me the kindness to have the dripping that resulted from the roasting examined in the laboratory at Guy's Hospital, and has found no trace of poison. Moreover, I have been able to follow up the history of the animal whence the joint was taken, and have inquired of those who partook of the corresponding limb, as well as of other parts, and I can get no account of ill effects in any direction.

Guided by the canons laid down in Dr. Ballard's paper, I cannot find an explanation of this occurrence. The animal, so far as can be traced, was known to be healthy; was killed in cold weather. The meat was not unduly fat; it was cooked while quite sweet and fresh; the flesh and fat were firm; it was simply roasted, without stuffing of any kind; the central part of the leg was underdone and red, the remainder tolerably well done, but the less "done" portions had not been eaten; it was eaten hot; various vegetables were eaten at the same time, but not of the same kind by all alike. Light table-ale was drunk by some of the party, water by others; no wine or spirit were drunk at all. Light pudding and cheese were eaten by some, and not by others. The symptoms commenced within two or three hours, and passed off in some of the family within twelve hours; recovery in all cases was perfect.

The above are the bare facts of the accident. They bear out the caution implied in your remarks, but they leave the matter entirely unexplained. I am, &c.

W. B. Kesteven.

Upper Holloway, February 26.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, February 23.

Mr. Partridge, President.

As soon as the Honorary Secretary had read the minutes of the preceding meeting of the Society,

Mr. Hulke rose and said that he wished to enter his protest against a proceeding which had taken place at the last meeting. His paper had then been read out of the order which had been announced in the journals and elsewhere, and without any notification of the intention to do so having been made to him. He had no personal feeling in the matter, but as a principle it was bad to read a paper in the absence of the author when it could be avoided. Had he been informed that his paper would be read, he might have illustrated it by diagrams; and he thought some law should be in force on the point, and that it was the duty of the Secretary to acquaint authors when their papers would be read.

Mr. Birkett explained that the paper was read to suit the time of the Society. He was not aware that there were any illustrations to it; and his notice to an author was not obligatory, but merely one of courtesy.

The President remarked that the custom of the Society was to read the papers in the order announced; but the Secretary could not, of course, determine how long the paper might take to read, or how far the discussion upon it might extend.

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Under these circumstances it might occasionally be necessary to substitute a short for a long paper.

After a few more observations the subject dropped.

A paper by GEORGE NAYLER, Esq., was read on

ALOPECIA.

Alopecia circumscripta, or areata, is a disease little noticed by any author except Cazenave, who confounded it with vitiligo of the scalp. It is far more frequent in the female than in the male, the relative proportion being that of seven to four between the two sexes; and it is chiefly observed about the period of puberty. It is a non-contagious disease, and may be represented by almost any number of circular bald patches on the scalp; very protracted in its progress, and tedious to heal. Alopecia is often associated with headache, especially in the female, or with some disorder of the catamenia; and in children, with ascarides or some gastric irritation. No pain or previous symptom indicates the disease, which is generally unperceived for some time by the patient. The patch is of ivory smoothness, and ends in a circumference of sound, unbroken hair.

When recovery takes place, the new hair is finer and softer than the old, and in some instances perfectly white. (The author had recently seen a patch in a lad of 18 years where the new hair was quite white.) A microscopical examination shows the hair-bulb to be reduced to a fine point, or the bulb to be slender, and sometimes ending in brush-like filaments. In the stages of recovery, the bulb by degrees assumes its normal shape and size; but the hair itself for a long time retains its fineness and lighter colour.

Alopecia is regarded by most French writers as a parasitic disease, as by Bazen, Harding, and others; but no instance of a parasite has been found by Mr. Startin or the author. Mr. Hutchinson once detected it; but this may have been a case of T. tonsurans or Pit. versicolor of the scalp.

The prognosis is favourable, particularly when the disease is recent and the patient of early age, or below puberty.

The treatment consists in attention to the general health, and in giving steel. The local treatment is of much importance. The surface affected should be painted from time to time with some blistering fluid, and in the intervals with some form of mercury or sulphur, either as an ointment or a lotion; or a lotion of the tinctura lyttæ. In protracted cases, mercury and arsenic in small doses may be given internally.

In general alopecia the prognosis is less favourable, and when the disease is of long standing no good result can be expected. This form of alopecia differs from alopecia areata only in involving a greater extent of surface.

A paper by Mr. WM. SCOVELL SAVORY was read on

THE ABSORPTION OF DEAD BONE.

Can dead bone be absorbed? This question still awaits a satisfactory answer. For while careful and accurate experiments have furnished only negative results, there are unquestionable facts which compel us to admit the possibility of the occurrence. One all-important consideration seems to have been hitherto neglected in the inquiry—the influence of pressure in determining the result. Thus, in the experiments which have been performed on the subject, and which have naturally led to the conclusion that dead bone may be kept amidst living tissues for weeks or months without losing the merest fraction of its weight—in these experiments the dead bone was kept in simple contact only with living parts. It appears that no considerable pressure was maintained. Whereas when ivory pegs are driven into bone, extreme pressure is of course produced. In order to test this view, some experiments were performed, which are related in the paper. It appeared to the author that the only explanation which can be offered of the results of these several experiments is, that the absorption of dead bone, when in contact with living bone, is determined by the pressure to which it is subjected.

The PRESIDENT said the communication was interesting in connexion with the experiments of Mr. Gulliver. The state of the fragments in cases of ununited fracture had been noticed before; but it had not been attributed to the cause which was explained in Mr. Savory's paper.

Mr. HILTON said the Profession ought to feel obliged to Mr. Savory for having adduced by well-considered and well-arranged experiments such conclusive evidence of the absorption of dead bone by the surrounding living tissues—a fact not usually admitted by Surgeons. He (Mr. Hilton) had several times noticed, on looking at two ivory pegs which had been employed in the same case of ununited fracture, and apparently under the same conditions, that the surface of one of them was partially absorbed, whilst the other did not manifest any loss of substance—a difference hitherto inexplicable, but now elucidated by the author's paper, as depending upon the variable pressure to which they had been subjected. An interesting point, however, presented itself for consideration to which the author had not made any reference—viz., What was the amount and duration of pressure required to induce this absorption? for dead bone was often seen buried within granulations which were undoubtedly capable of exerting much pressure without the slightest appearance of any absorption having occurred. For instance, in the case of an amputation through the femur, the same end of the bone may come away necrotic after several months' subjection to the pressure of muscles, fascia, granulations, bandaging and strapping, yet the track of the teeth of the saw used at the amputation would be seen as cleanly cut and as sharply defined as on the day of the original operation. The same kind of facts was quite as discernible in cases of compound fracture of a long bone, where the fractured end of bone, although surrounded deeply by granulations and new bone during several months, would present the sharp, well-defined edge of the fracture as evidently as on the day of the accident, uninfluenced by the pressure of any of the surrounding living tissues. Mr. Hilton had removed from the leg several portions of a comminuted compound fracture of the tibia eight years after the accident and seven years after the closure of the external wound, and upon two of them the well-defined edge of the original fracture was obvious and markedly different from the serrated edge observable where the piece of bone had been separated from the living bone by the slow process of absorption. Mr. Hilton would suggest to the author the inquiry as to how or by what combination of minute events does pressure contribute towards absorption of the dead bone, because the pressure in his (Mr. Savory's) experiments was made equally on both the living and dead bone. No doubt such an investigation could not be placed in better hands than Mr. Savory's.

Mr. PARTRIDGE inquired whether the absorption of the pegs was greater in the shaft of the bone or in the medullary canal?

Mr. SAVORY said absorption was greater in the shaft portion than in the medullary canal.

Mr. COOTE said that Mr. Savory's experiments were very interesting in confirming the view entertained by many Surgeons that, in the removal of dead bone, the action of the absorbents was possible in the material that had perished. He had himself witnessed the corrosion of the surface of ivory pegs introduced into living bone for the purpose of promoting union in a non-united fracture. The possibility of the fact, which had been doubted, was important; but, after the experiments thus detailed, could not be denied. He (Mr. Coote) thought that perhaps pressure alone was not sufficient to explain the phenomena of removal. He had witnessed the separation of large portions of bone, which he believed to be dead, on which no pressure could have been exerted. But the fact remained the same; and the value of Mr. Savory's observations must be undisputed. He (Mr. Coote) concluded with some remarks on the relative size of sequestra and the bony cavities which contained them.

Mr. BROOKE said that he doubted whether the process by which the surface of the pegs was eroded could truly be designated a process of absorption. He thought it probably analogous to the process of disintegration, by which the surface of a sequestrum is acted on by the highly-vascular granulating surface with which it is in contact. That disintegration, and not absorption, is going on in cases of necrosis, may generally be rendered evident by the appearance of the *débris* of bone-tissue in the pus discharged from the cloaca.

Mr. WOOD asked the author whether, in each of the experiments detailed, the condition of the medullary membrane in contact with the peg had been observed, as regarded the presence of granulations or other absorbing structure. In many of the cases in which the pegs had been loosely inserted, extensive suppuration, and in some instances death, had followed. Could the action set up in these cases have been that of a process destructive to the absorbing or vital powers of the bone and medullary membrane operated on, this would of course prevent the occurrence in these experiments of any absorption of the foreign or dead bone. He presumed that in all the experiments pegs made of the same dried bone had been used, and that there was in no case introduction of putrid matter. In most of the pegs shown in the box handed round which exhibited any evidence of roughening, this extended equally

through the parts embedded in the bone of the animal, although only the part traversing the compact tissue of the cylinder of bone had been subject to pressure. The intermediate portion had been in contact with the medullary substance. In the specimen from which the drawing was taken the peg seemed even more attenuated in the cavity of the bone than where in contact with its walls.

Mr. SOLLY remarked that, while agreeing with all the former speakers in the great value of Mr. Savory's paper, he did not think that it subverted all the old opinions that dead bone could not be absorbed except under pressure: for instance, in necrosis of the parietal bones—a good case of which he had in his mind's eye, where the bone died, became black, lost its sensibility, and was then separated from the living bone because it was dead. The sequestrum which was thus cast off was perforated in all directions as though worm-eaten, and absorbed in patches. Was not this an instance of dead bone being absorbed without pressure? Had not every Surgeon in the room seen such cases?

Mr. SAVORY, in reply, said he had considered it best in the paper simply to demonstrate the fact that the absorption of dead bone is determined by the pressure to which it is subjected. In working at the matter, of course he had thought of the nature of the influence thus exercised, but he did not consider any opinion which he might have formed on the subject worth expressing. The question was not in relation to the absorption of bone, whether living or dead, but to the effect of pressure on the absorption of dead bone. With respect to the case Mr. Solly mentioned, it was not enough to show that dead portions of bone bore evidence of having been partially absorbed: it must be shown that such absorption occurred after the death of the bone, and thus independently of all pressure. Mr. Savory defended the use of the word "absorption." He had not employed the term without foreseeing the objection that might be urged against it; and so he had been careful to relate how, in some of the experiments, the wounds at once closed, and completely healed without any discharge or other means by which disintegrated fragments of bone might have escaped. Moreover, if the preparations were examined it would be seen that, in some of them, the portions of dead bone which had been removed could not have escaped, for the holes were tightly plugged by the pegs which had been driven in. With reference to the destination of the bone which disappears in disease, Mr. Savory thought that the evidence advanced to prove that this is always disintegrated and cast out was unsatisfactory and inconclusive. Of course, in some forms of ulceration of bone, as in phagedenic ulcers of soft parts, disintegrating fragments might perish and escape; but in other less destructive forms of ulceration bone might disappear through absorption. Much had been made of the fact that the discharge from carious bone contains an unusual abundance of phosphate of lime, this being supposed to represent the dissolved osseous tissue. But while, on the one hand, this would prove too much, the proportion of bone which disappears not being equal to the quantity of phosphate of lime discharged, on the other hand, a better, a more philosophical explanation of the fact might be given. As in health each part assimilates to itself from the blood its own proper constituents, so in abnormal forms of nutrition it was reasonable to believe that the material furnished by different structures would present characters of composition more or less corresponding with those of the tissue whence it proceeded. Be this as it might, however, in some at least of the experiments described there was no means by which the portion of bone which had disappeared could have escaped externally.

THE PATHOLOGICAL SOCIETY.

TUESDAY, FEBRUARY 2.

Mr. PRESCOTT HEWETT, President.

MR. WALTER COULSON exhibited

THE FRAGMENTS OF THE SHELL OF A MEDIUM-SIZED URIC ACID CALCULUS SPONTANEOUSLY DETACHED AND PASSED THROUGH THE URETHRA.

The patient, a man from Derby, aged 61, was first seen May 26, 1863. He had suffered from bladder irritation for the last five years. Seven months ago a small portion of the shell of a stone came away, and after an interval of a week another bit. He continued to void pieces with his urine for five or six weeks, by the end of which time the shell of a fair sized calculus had been passed. During this period the urine was deeply tinged with blood, and he suffered acutely. Subsequently, lithotrity was performed, and he was cured after five operations, and it was found that there were two calculi in the bladder.

Mr. WALTER COULSON next showed

ELEVEN STONES REMOVED BY LITHOTOMY.

In this case lithotrity was, in the first instance, attempted, but the cutting operation was resorted to, as the patient was unable to empty his bladder except by the aid of a catheter, in consequence of the quantity of stone contained in the bladder. The patient, aged 65, made a good recovery.

Mr. WALTER COULSON also brought forward

THE SACCULATED BLADDER AND KIDNEYS OF A PATIENT ON WHOM LITHOTOMY HAD BEEN PERFORMED, ALSO TWO CALCULI REMOVED, ONE OF WHICH HAD BEEN ENCYSTED.

The patient had suffered for some years with symptoms of stone. He had been frequently sounded, but nothing had been detected. Mr. Coulson examined him with a lithotrite, and found a stone fixed on the left side of the floor of the bladder, that he was unable to seize. Lithotomy was resorted to, and the patient died three days after from uræmia. The bladder was sacculated, and contained one large sacculus on the left side of the floor of the bladder, that had evidently lodged one of the stones removed, as at the time of the post-mortem there were still portions of calcareous matter adhering to it. The ureters were both dilated. The left kidney was reduced to a mere cyst, and the kidney structure of the right was much injured. The encysted stone was removed entire, the second in fragments. Both calculi were chiefly phosphatic.

The PRESIDENT said that he had seen the patient from whom the last specimens were taken some years before, and had detected no stone. He then told the patient, however, that he had alkaline urine, and was liable to suffer from calculus. The President also mentioned that he had succeeded in detecting a stone by a catheter, which allowed the urine to escape gradually, when he could not by the ordinary sound. He considered that this was an important point, and gave several instances in which the catheter detected a stone when the sound did not.

Mr. CHRISTOPHER HEATH exhibited

A LARGE MASS OF CALCULOUS MATTER EXTRACTED BY MEDIAN LITHOTOMY IN A CASE OF RETENTION OF URINE.

A man, aged 34, was admitted into the Westminster Hospital with severe traumatic stricture, the result of injury to the perineum twelve years previously, since which time no instrument had been passed into the bladder. A few days after admission, retention of urine supervened upon an attempt to pass a catheter, and it became necessary to afford relief. The point of the catheter touching calculous matter in the prostate, and being thereby prevented from reaching the bladder, the patient was tied up in the lithotomy position, and Mr. Heath made an incision in the median line to extract the calculi. It was found, however, that, in addition to the prostatic calculi, there was a large vesical calculus, which proved to be adherent to the left side of the bladder. After one or two attempts at removal, the stone broke in the forceps, and was extracted piecemeal. A large number of prostatic calculi were removed, and there was then found to be a quantity of calculous matter adherent to the coats of the bladder in various parts. This was scraped away with the scoop as far as possible, and removed. The patient did well, and made a perfect recovery, the stricture being subsequently treated by Holt's dilator. The calculi exhibited consisted of two distinct formations, vesical and prostatic, the whole mass weighing 1084 grains (or 18 drachms, 4 grains), and the small prostatic calculi alone 46½ grains. The prostatic calculi averaged the size of barleycorns, and were of a dark brown colour. The portions of vesical stone were found to form two distinct calculi, one composed of fusible calculus around a nucleus of phosphate of lime, deeply coloured with animal matter, the pieces of which weighed 832 grains, and which had evidently been adherent to the coats of the bladder; and the other, of very remarkable shape, and weighing 104 grains, which consisted of a nucleus of phosphate of lime deeply coloured, very smooth, and of the size and shape of a sparrow's egg (39 grains), with a surrounding portion of phosphatic matter, more resembling a gigantic "os unciforme" than anything else. These latter pieces came away in the forceps in the middle of the operation, but their source was doubtful. The *débris* of phosphatic matter removed from the bladder weighed 101½ grains.

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Mr. HEATH also exhibited

A SPHERICAL CALCULUS REMOVED FROM THE BLADDER AFTER DEATH.

This calculus was removed post-mortem by Mr. Bullen, of the Lambeth Workhouse, from the bladder of a man, aged 82, who had had hardly any symptoms of urinary affection during life. The calculus was remarkable for its nearly perfect spherical shape.

Dr. MURCHISON showed a specimen of

CANCER OF THE ŒSOPHAGUS COEXISTING WITH RECENT TUBERCLE IN THE LUNGS.

A man, 54 years of age, who was, until the illness of which he died, very healthy, although very intemperate, began to get thinner, to swallow with difficulty, and to vomit immediately after his meals. He died at the end of ten weeks. It was found at the autopsy that there was stricture of the œsophagus, an inch and a-half above the cardiac orifice of the stomach. The mucous membrane was free from ulceration, but was puckered, and there was a little fistula leading into the tumour from the œsophagus. The tumour, which was in the posterior wall, was dense and translucent. The glands in the neighbourhood were healthy. The lungs were found to contain, at their apices, old and recent tubercles, calcareous nodules, and cheesy matter, and scattered miliary tubercle. He had thought at first that the tumour might also have been tuberculous, but it contained abundance of characteristic cancer cells.

In reply to Mr. Sydney Jones, Dr. MURCHISON said that the tubercle in the lungs had been examined microscopically.

Mr. W. ADAMS exhibited

TWO LEGS OF A CHILD WHO HAD BEEN THE SUBJECT OF CONGENITAL TALIPES VARUS.

The child, aged eleven months, had died of acute inflammation of the lungs. Both legs, as now exhibited, were free from deformity, the achilles and the anterior and posterior tibial tendons having been divided five months before death. In each of the Achilles tendons there was half an inch of new tendinous tissue inserted between the divided extremities of the old tendon, which was thus elongated. Externally, the tendon was well defined, and its surface even throughout, so that there were no traces of the operation, but the new tissue was easily distinguished on the recent section by its grey translucency, contrasting with the opaque pearly lustre of the old tendon. Both the posterior tibial tendons had united, but in one of them the free play of the tendon was limited by adhesions, whilst in the other only very slight adhesions existed. Mr. Adams remarked that he had already published fifteen post-mortem examinations after tenotomy, and, since the publication of his work on this subject, had made at least five or six more which confirmed the opinions he already advanced. With regard to the posterior tibial tendon, Mr. Adams observed that he employed gradual extension for a week before the operation, to limit the separation of the cut extremities, and thus favour union.

Mr. BARWELL said that he had never denied that the posterior tibial tendons would unite, but had said that they contracted adhesions. He had never operated in such cases, and had never found it impossible to replace the foot.

Dr. CAMPS suggested that the deformity might be due to paralysis rather than to contraction.

Mr. W. ADAMS said that in cases of congenital varus, such as the present, there was not a shadow of evidence that paralysis ever existed. He had never seen such a case, though in some rare instances congenital deficiency of some of the muscles of the leg existed, and at first this condition might be mistaken for paralysis. Non-congenital paralytic deformities were common enough, and in some of these cases the most brilliant results in Orthopædic Surgery were obtained by tenotomy.

Mr. MAUNDER remarked that in cases of wounds, on healing, tendons would be glued to the skin in the cicatrix, but after a time they became loose again.

Mr. BARWELL said that there was a difference in the wounded limb of a strong healthy man and a weak child's leg on a splint.

Mr. POLLOCK showed a specimen of

RUPTURE OF FATTY HEART.

A lady, 60 years of age, very fat, was seized with acute pain, and died suddenly. A rent was found in the anterior part of the left ventricle, and the pericardium was distended with blood. The other viscera were healthy.

Mr. POLLOCK showed a specimen of

NECROSIS OF THE THYROID CARTILAGE.

The patient had been admitted, October 7, for extreme difficulty of respiration and husky voice and cough. A few days later laryngotomy was performed, with immediate relief. On the fifth day the patient was better, the tube was withdrawn, and finally the orifice healed. The laryngoscope showed that on one side the glottic orifice was contracted, and on the other there was swelling. The patient died suddenly one night, having had but very slight previous dyspnœa. The aryteno-epyglotidean folds were thickened, and a piece of the thyroid cartilage, necrosed, was found in an abscess.

Dr. GIBB exhibited a specimen of

STRICTURE OF THE TRACHEA AND GROWTHS OF THE LARYNX,

from a lad of 19, who had been admitted into the Westminster Hospital with extreme dyspnœa, which was at first supposed to depend upon laryngeal obstruction. On the tenth day tracheotomy was performed by Mr. Holthouse, but a tube could not be worn, in consequence of the existence of constriction of the trachea, this condition being found after death to have involved the entire tube, as well as both large bronchi, thus rendering the causes of the dyspnœa threefold —namely, obstruction of the larynx, trachea, and bronchi. The patient had suffered from former attacks of laryngitis coincident with glanders.

Mr. SYDNEY JONES showed a

SKULL CONTAINING A TABLE-KNIFE.

It had been driven through the orbit into the cranial cavity, the point projecting through the bone behind.

Mr. SYDNEY JONES also showed a skeleton of a foot, in which there were two internal cuneiform bones.

Mr. HINTON presented, for Mr. Toynbee, the

LEFT PETROUS BONE, AND SOME PORTIONS OF DURA MATER, FROM A PATIENT WHO DIED WITH CEREBRAL SYMPTOMS.

The specimen had been sent him by Mr. Lacy, Surgeon to H.M.S. *Cumberland*. The patient had been under treatment a year ago for suppurating bubo, but had recovered. Fourteen days before his death he was placed on the sick-list for coryza and discharge from the ear. About a month before he had had acute pain in the ear, but none lately. The face shortly became paralysed on the left side. He sank gradually, with scarcely any complaint of pain. A day or two before his death a profuse gush of purulent matter escaped from the ear. On removing the calvaria, a number of firm growths were observed, firmly attached to the dura mater in various places, and varying in size from a pin's head to a hazel-nut. The vessels of the pia mater were full of blood, but there was no effusion or softening. The larger growths had made marked impressions on the adjoining convolutions, the largest indentation being on the left lobe of the cerebellum. Otherwise, the membranes and brain substance were healthy. The left membrana tympani was destroyed, and the roof of the tympanum had a slightly-darkened and worm-eaten appearance. The tympanic cavity was full of pus. The head only was examined, but there existed no symptom indicating disorder of any other organ than the brain.

APPEAL IN CRIMINAL CASES.—Sir F. Kelly's Bill, which waits for a second reading, proposes the establishment of a Court of Criminal Appeal. Under the Act of 1848 questions of law arising on the trial of a prisoner may already be reserved for the consideration of five or more of the judges, but this bill proposes a large extension of their jurisdiction. If any person convicted of treason or felony can obtain the certificate of a barrister that there is reasonable ground to appeal, a motion may be made upon affidavit or otherwise for a new trial, or leave to enter an acquittal. The motion may be made either before one of the superior courts or before this "Court of Criminal Appeal," but it is this last court that is to hear the rule argued if it be granted, and to dispose of the case. A new trial may be ordered, or the trial of a particular question of fact, as, for instance, of insanity. If a prisoner on being convicted declares his intention to appeal, the judge may either postpone pronouncing sentence, or pronounce sentence conditionally, and, if he think fit, release the prisoner on recognisance with or without sureties, or he may pronounce sentence to be executed as if no appeal were to be made. The Bill allows any person to apply to the Court on behalf of the convict "at any time after his conviction," upon the ground of his insanity either at the time when he was tried or at any time afterwards.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, February 25, 1864 :—

Frederic Isaac Flower, Middlesex Hospital; Herbert Morris Spencer, London Hospital; Henry John Hunt, King's College Hospital; Arthur Long, Barham, near Canterbury; Thomas Mills, Cliff-parade, Southend.

The following gentleman, also on the same day, passed his First Examination :—

John Comyns Leach, University College.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ALLBUTT, THOMAS C., M.B. Cantab., has been appointed Physician to the Leeds Public Dispensary.

GILCHRIST, WILLIAM, M.D. Edin., has been appointed Hon. Acting-Physician to the Erith House Institution for Ladies with Affected Chests, Torquay.

GOLDING, JAMES P., M.D. Q.U.I., has been elected Medical Officer to the City Dispensary, Cork.

HALL, CORNELIUS S., M.R.C.S. Eng., has been appointed Medical Officer for the new Workhouse and Union Hospital for Carlisle.

WILLIAMS, WILLIAM, F.R.C.S. Eng., has been elected Medical Officer of the Dolgelly Workhouse, Merionethshire.

WOODMAN, ROBERT, M.D. Aberd., has been appointed Medical Officer for the Workhouse of the East and West Flegg District.

DEATHS.

BRISTOWE, JOHN SYER, M.R.C.S. Eng., at Clarence-place, Camberwell, S., on February 29, aged 71.

BROWN, J., M.D. 1st Assistant-Surgeon Presidency General Hospital, at Calcutta, on November 12.

BUTLER, JOHN, M.R.C.S. Eng., at 49, Rectory-place, Woolwich, on February 28, aged 65.

CRONYN, GEORGE, M.D. Glasg., at Callan, Co. Kilkenny, on December 27.

DAY, R., M.D., at Wymondham, Norfolk, on February 3, aged 49.

DEWEY, WILLIAM, Surgeon, at Grafton-road, Holloway, N., late of Taunton, on January 5, aged 64.

GRANT, JAMES, M.D. Edin., at the Dundee Royal Infirmary, on February 19, aged 28.

GREEN, JONATHAN, M.D., at Charterhouse, on February 23, aged 76, formerly of Great Marlborough-street.

HIFFERNAN, RICHARD P., L.R.C.S.I., Assistant-Surgeon, R.N., at St. John's Rectory, Newport, Tipperary, on February 25, aged 30.

HIGGINS, CHARLES C., Surgeon, at Abbot's-Bromley, Rugeley, Staffordshire, on February 12, aged 80.

JACOB, JOHN, M.D. Edin., of Maryborough, Queen's Co., at Falmouth, on February 26.

LOMAS, HENRY W. F. M., M.R.C.S. Eng., at New Shildon, Durham, on December 31, aged 34.

MACFARLANE, J., Surgeon, of Arrochar, at Glasgow, on February 16.

MARTIN, CHARLES, W. S., M.R.C.S. Eng., at 10, Dacre-park-terrace, Lee, Kent, on February 15.

MURRAY, PETER, M.D. Edin., at Scarborough, Yorkshire, on February 27, aged 82.

SPENCE, GILBERT W., M.D. Edin., at Whiteness, Shetland, on February 16.

ROYAL COLLEGE OF SURGEONS.—Some years ago the Council of the above institution, being desirous of diminishing the great amount of study required of candidates for the Fellowship of the College, passed the following resolution, much to the annoyance of some gentlemen who, at great expense of time and money, had undergone the full examination for that distinction, viz., "Graduates in Medicine of any University in the United Kingdom are admitted to the Fellowship after having passed the professional examination in Surgery only, provided the educational and other requirements of such graduates by the University in question be deemed by the Council of this College equivalent to those imposed on the candidates for the Fellowship of this College." This regulation is now suddenly rescinded, as will be seen on reference to our advertising columns, and henceforth candidates will have to undergo examinations in anatomy and physiology (with dissections in the case of junior candidates under twelve years' standing), in addition to examinations in Surgery and pathology (with operations on the dead body). The only relief afforded to the graduates in question will be exemption in the Arts' examination. It is stated that *all* candidates at the ensuing examination in May next will have to comply with the new terms. The above will be an answer to the correspondents who have addressed remonstrances on the subject to the *Medical Times and Gazette*. From this matter there is no appeal. We are officially told that "all must comply with the regulation."

DEATH OF PROFESSOR CASPER.—Our readers will much regret to learn that Professor Casper, the celebrated Berlin Medical Jurist, died on the 24th February.

ACADEMIE DE MEDECINE.—The election into the Section of Hygiene, which has excited so much interest in the Parisian Medical circles, terminated in favour of M. Delpech. At the first round of the ballot-box, M. Delpech obtained 32 votes, and M. Boudin, 20; the other candidates, 30. At the second round, the numbers were:—Delpech, 47; Boudin, 20; other candidates, 16.

PRESENT TO H.R.H. THE PRINCESS OF WALES.—Amongst the valuable presents offered to Her Royal Highness on St. David's Day was a casket richly wrought in pure silver from Sir John F. Palmer, President of the Legislative Council of Victoria, which was forwarded to the Princess through His Grace the Duke of Newcastle, Secretary of State for the Colonies. Sir John Palmer, who is also a Member of the Royal College of Surgeons, having been admitted so long ago as 1826, is deservedly well known in this country as the editor of Hunter's works.

THE ROYAL LEVEE.—At the levee held by H.R.H. the Prince of Wales on Wednesday, March 2, the general circle was attended by Mr. Lawrence, Serjeant-Surgeon to the Queen. The following presentations to the Prince of Wales, on behalf of the Queen, took place:—Dr. Armstrong, R.N., Deputy-Inspector-General, on his return from foreign service and appointment as Honorary Physician to his Royal Highness the Prince of Wales, by Lieutenant-General Knollys; Alfred Atkyns, M.D., Surgeon, London Rifle Brigade, by Lieutenant-Colonel Warde, London Rifle Brigade; Assistant-Surgeon Charles Browne, 1st Surrey Rifle Volunteers, by Lieutenant-General Sir George Pollock, G.C.B.; Dr. J. Balfour Cockburn, Surgeon Royal Engineers, by the Earl of Malmesbury; Assistant-Surgeon R. A. Chapple, R.A., on return from India, by Colonel H. L. Gardiner; Dr. Arthur Farre, on appointment as Physician Accoucheur to her Royal Highness the Princess of Wales, by the Lord Chancellor; John T. Griffith, M.D., Battalion Surgeon 1st Surrey Rifle Volunteers, by Lieutenant-General Sir George Pollock; Dr. George T. Gream, M.D., Physician Accoucheur to her Royal Highness the Princess of Wales, by the Lord Chamberlain; Dr. Linton, C.B., Inspector-General of Hospitals, on return from service in India, by his Royal Highness the Duke of Cambridge; Assistant-Surgeon R. Lewer, Royal Horse Artillery, on appointment, by Colonel H. L. Gardiner; Assistant-Surgeon J. T. M. Symons, M.D., R.A., on return from India, by Colonel H. L. Gardiner; Assistant-Surgeon E. Venning, 1st Life Guards, on appointment, by Lieutenant-Colonel the Hon. D. C. F. de Ros, 1st Life Guards; Mr. Thomas Spencer Wells, on appointment as Surgeon to her Majesty's Household, by the Lord Chamberlain. The following members of the Profession attended the levée:—Doctors: Dickson, Louth Rifles, William Farr, M.D., F.R.S., Sieveking, Dalton, 1st Royal East Middlesex Militia; Messrs. George Pollock, O'Leary, Surgeon-Major Judd, George Nayler, Du Pasquier.

PRESENTATION TO PROVOST ADAMS.—On Wednesday last the highly respected Provost of Lanark, Alexander Maxwell Adams, Esq., M.D., was presented, in the hall of the County Buildings, with a flattering testimonial of the very great esteem in which he is held by his fellow-townsmen and the gentlemen of the neighbourhood, both for his eminent public services, long and faithfully rendered, and the surpassing worth of his character as a private gentleman. There was a large attendance of ladies and gentlemen. The tea service and salver, forming the presentation plate, are very fine specimens of the silversmith's art. Upon the salver is the following inscription:—"Presented, along with a carriage and silver tea service, by a large number of the inhabitants of Lanark and its neighbourhood, to Alexander Maxwell Adams, Esq., M.D., Provost of Lanark, to testify their high appreciation of his public and Professional services, and private worth. —February 25, 1864." Mrs. Adams was presented with a gold brooch, an exceedingly handsome and massive jewel of great value. The carriage, an elegant little one-horse phaeton, from the factory of Mr. Stordy, Edinburgh, stood at the door while the company were leaving. When the Provost entered it, a few of the younger members of the party unharnessed the horse, and drew Mr. Adams home amidst loud cheering.

DEATHS FROM THE INHALATION OF CARBONIC ACID GAS.—An inquest has lately been held at Bideford on the body of a young man who was found in the morning dead in his bed-room, where a coke fire had been burning all night. The room was entirely unventilated. A similar accident is reported at Gloucester. Two old persons named Gough went to bed in a completely unventilated room, in which was placed a bucketful of glowing cinders just stirred from the grate. The next morning both were found in a state of insensibility, and one died on the same day.

POISONING BY ACCIDENT.—An inquest was held at Kinniside, Ennerdale, Cumberland, on Wednesday, February 24, upon the bodies of Andrew Palmer, aged 16 years, and Anthony Fletcher, 14 years of age, who, on the previous Monday, took some sheep-dipping powder mixed with treacle in mistake for sulphur, and died on the following day. The sheep-dipping powder was found to be composed of sulphur, potash, and arsenic. The jury returned a verdict of "Accidental death."

SCOTTISH REGISTRAR-GENERAL'S REPORT.—The Registrar-General for Scotland reports that births, deaths, and marriages were all above the average in 1863. The births were at the rate of 3·53 per cent. of the estimated population, the deaths 2·30 per cent. A high death-rate is always attended with a high birth-rate, as if an additional number of children were born to compensate for the extra losses by death. In the town districts the death-rate was 2·72 per cent., and the birth-rate 3·83; in the rural districts the death-rate was 1·83 per cent., and the birth-rate 3·18. The weather of the year was remarkable for the little variation of temperature, the night temperature being higher and the day lower than usual, and the summer months less hot, and the winter less cold than usual; a certain amount of variation of temperature is beneficial to the general health. The excess of births over deaths in 1863 was 253,817 in England, and 37,904 in Scotland—an increase of 291,721 in the population of Great Britain; but only about 200,000 would remain after deducting persons of British origin emigrating to foreign countries other than in Europe. Of immigration there are no accounts. The population of England in the middle of the year 1863 is estimated by the Registrar-General at 20,554,000, and that of Scotland at 3,097,000, making together 23,651,000 —an increase of more than 500,000 since the census was taken in April, 1861. 1863 is the last year in which we shall have no account of the births and deaths in Ireland.

THE SITE OF ST. THOMAS'S HOSTITAL.—As had been foreseen, the Vice-Chancellor Sir W. P. Wood has sanctioned the choice of the Stangate site. In delivering his judgment, Sir Page Wood said:—"The Legislature, though it gave the governors a wide scope within which to make their choice, restricted that choice by requiring that any site which the governors might select for the erection of a new Hospital should be subject to the approval of the Court of Chancery. But the Court was not thereby vested with an arbitrary power of rejecting any site that the governors might submit for its approval, and taking upon itself to choose a fresh site. Unless it could be shown that the governors were influenced by improper motives in making their selection, the Court ought not to withhold its sanction. No such improper motives had been shown or even suggested, nor could he come to the conclusion that the governors had not carefully, and after much deliberation, decided upon the Stangate site. With the unanimous consent of the Grand Committee and the unanimous consent of their Medical officers, they had come to the conclusion that Stangate would be a proper situation for the new Hospital. It was not, therefore, the function of the Court to interfere with a choice thus deliberately and unanimously made, when no improper motive or influence could be shown to have prevailed. His Honour then proceeded to consider the evidence and the objections raised to Stangate, and came to the conclusion that the objections raised were not sufficient to show that that site ought not to be sanctioned. The Millbank Penitentiary, immediately opposite to the bone nuisance, and on the banks of the Thames, showed by its healthy state the results that might be obtained in such a situation by good management. The death-rate proved that Stangate was rather more healthy than other parts of the metropolis. The situation was very accessible, and would have the large river area in front, which could never be built over. Some disadvantages, no doubt, there must be in any situation in the metropolis itself, but those disadvantages were by no means prominent at Stangate. The objection to the river situation was also answered by the success of the Hôtel Dieu on the banks of the Seine, one of the largest Hospitals in Europe. It appeared upon the evidence that, although a new model Hospital had been recently established in Paris with a much larger area around it, the Hôtel Dieu had still retained its rank and success. No doubt, as to size, cheapness, proximity to the original Hospital, and more immediate occupation, there was evidence in favour of the Surrey Gardens; but, unless persuaded that the Stangate site was absolutely improper, and that there were overwhelming reasons for preferring the Surrey Gardens, he ought not to disturb the deliberate choice of the governors. He was not so persuaded, and the choice of the Stangate site would therefore be sanctioned by the Court."

POISONING BY ABSORPTION.—On Saturday, Mr. B. L. Gross, Coroner, Suffolk, concluded an inquiry into the death of a child named Boatman, the daughter of a small farmer at Wissett, near Halesworth. The case presenting remarkable features, the Coroner applied to the Home Secretary to enable Professor Taylor to make a more than ordinarily careful and costly analysis. The circumstances are briefly as follow:—The deceased was aged 9 years, and lived with her father and stepmother at a small farm-house in a lonely situation. The child was taken ill, gradually got worse, and died soon after a Medical man was called in. The Surgeon (Mr. Howard), feeling satisfied that the child died from poison, refused to certify the cause of death. An inquest was accordingly held, and when the jury viewed the body, the scalp of the head was found to be in a shocking state from ringworm, and covered with vermin. The stepmother stated that, about ten days before the death of the child, she applied some precipitate powder, and a little poison in the shape of an ointment, to the head, to kill the vermin. The Coroner ordered a post-mortem examination, and the appearance of the intestines and stomach pointing to arsenical poison in some form or other, it was felt important to ascertain whether the child died from arsenical poison, and, if so, how it was administered. The viscera were accordingly sent to Professor Taylor at Guy's Hospital, and that gentleman stated at the inquest, on Saturday, that the child died from arsenic, applied externally, and absorbed into the system. The condition of the viscera, in their appearances, in the nature of their contents, and in the minute, imponderable quantity of arsenic present in them, was not consistent with the supposition that arsenic had been given in a solid form or in a liquid form by the mouth; but it was quite consistent with the absorption of the poison through the skin of the scalp, and its subsequent diffusion by the blood. The scalp of the deceased was found to contain a large quantity of arsenic associated with a quantity of mercury (white precipitate), which had been applied, as above stated, in the form of an ointment. The jury returned a verdict to the effect that the deceased died from the results of an ointment containing arsenic applied to her head by Mrs. Boatman, she being ignorant of the consequences, and intending merely to heal disease of the scalp.

ETHNOLOGICAL SOCIETY, 4, ST. MARTIN'S-PLACE, FEBRUARY 23.—J. Lubbock, Esq., F.R.S., President, in the Chair.—A paper was read by the Rev. Frederick Farrars, M.A., "On Traditions, Real and Fictious." The object of the paper was to prove that a most exaggerated importance had been attached to the supposed evidence of traditions in favour of the universality of the deluge, and the unity of the human race. The traditions chiefly examined were those which refer to great deluges, and it was proved that, so far from being universal, they existed only in countries which were liable to great aqueous catastrophes, and were not found at all in continents like Africa and Australia, which are wholly exempt from such contingencies. Hence it was agreed that many of these supposed echoes of the Mosaic narrative must be nothing more than the legend originated by great local disturbances, and some authorities were quoted to show that this was the view often taken by the original reporter of the tradition. It was shown that if closely examined a great number of traditions which had been prominently adduced as distorted fragments of semitic belief naturally fall into five classes, viz.: 1. Independent beliefs arising spontaneously from the observations of fact; 2. Similar allegoric representations of common catastrophes; 3. Vague legends presenting but few points of similarity with the Jewish traditions, and forced into unreal resemblance with them; 4. Mere plagiarisms from the biblical narrative; and 5. Absolute fictions and invections. Under the first head fall the widely-spread notions respecting the

rainbow, the dove, the serpent, the origin of woman, etc. Under the second it appeared that many of the most remarkable traditions of a flood were confessedly traditions of partial cataclysms, and could not have any connection with the Noachian deluge. Under the third head various legends were quoted, and it became evident how few the points of osculation really were, and how easily they were to be accounted for. Under the fourth head the gneosis of several famous traditions was traced from a general and obscure beginning, until in the hands of later writers they had been ornamentally expanded into full-blown plagiarisms of the Mosaic narrative. Under the last head instances were adduced of admitted forgeries, and the probable and facile origin of such purely fictious legends described. The conclusion drawn was that no tradition can be received as evidence until its antiquity, originality, and genuineness had been thoroughly proved, which was seldom the case, and that at present the supposed universal singularity of traditions could not be maintained as a fact—not in any way regarded as an adequate argument in support of the conclusion made to rest upon it. —Muti Coomara Swany read another paper on "The Ethnology of the Island of Ceylon." He classed the different races inhabiting it into—1. The Veddahs are supposed to be the aborigines of Ceylon. They are fast dying out, and but a few remnants of them are now left in the south-west of the island. 2. The Singhalese are the inhabitants proper of the island. They are divided into the hill-country Singhalese and the low-country Singhalese. 3. The Tamils are allied to those races which inhabit the best part of southern India. Originally they came as invaders of the island from the continent, and subsequently became settlers in the northern and eastern parts of the island. 4. The Moors, as their name indicates, are the remnants of the Arab adventurers of olden days. By intermixture with the native races, they have more or less lost the distinguishing traits of their forefathers. 5. The Eurasians form now an important return of the Ceylon community, though their numbers are yet small. They are remnants of the old Portuguese and Dutch settlers, as also the children of English fathers by Asiatic mothers. 6. The European settlers of Ceylon are chiefly English, notwithstanding the trade of the island being open to all the nations of the world. The whole population of Ceylon does not, however, much exceed two millions.

A New Theory of Muscular Action.—This is the title of a very able and ingenious thesis, read before the University of Dublin by the Rev. Dr. Haughton, of Trinity College. Dr. Wollaston, in 1809, drew attention to the "susurrus" of muscle in active contraction, and compared it to carriages at a distance passing rapidly over a pavement. He approximately estimated the frequency of the vibrations at about thirty-five or thirty-six in a second. Dr. Haughton confirms the observation by novel and more accurate experiments. These originated accidentally in an access of severe tinnitus aurium following fever, which prevented him from sleeping at night. During restlessness from this cause, he amused himself by producing the susurrus in the masseter muscles, and observed that the tinnitus was in unison with the susurrus, but separated by several octaves. Ultimately, the musical note of the susurrus was fixed at what organ builders term C.C.C. in some persons, and D.D.D. in others, notes lying two octaves below bass C. and D. respectively, and to be found on pianos of recent construction only. The sound C. represented thirty-two and D. thirty-six vibrations in the second, while the tinnitus stood on high C., five octaves above. Dr. Haughton, struck, like Dr. Wollaston, with the resemblance of the sound to distant cabs, measured the intervals of the Guernsey granite pavement, and found them about four inches apart, thus giving three impulses in the foot. Supposing the cabs to drive at eight miles an hour, we have 35·2 impulses per second, coming marvellously near the original estimate of Dr. Wollaston. An organ-pipe with a movable piston was then made, enabling it to be tuned up and down in the neighbourhood of C.C.C. Dr. Stokes, who assisted in the experiments, tuned this to the susurrus as heard in the muscles of his own fore-arm, and found, by the method of "beats," that the vibrations were 35½ per second, corresponding to a note rather flatter than D.D.D. natural. The author then proceeds to deduce from the rate of muscular contraction the "amount of work stored up in human muscles" by extending the arms horizontally, so that they are sustained entirely by the supra-spinatus and central portion of the deltoid. His own arms became tired in 7 minutes, and those of other persons in periods varying from 6·5 to 10 minutes in males, from 10 to 15 minutes in adolescents, and from 7·5 to 12 minutes in females. From calculations based on the weight and leverage of the arm as a falling body, it is calculated that these muscles are capable of giving out work equal to raising 1083 lbs. through a foot, before they are exhausted. The muscles of the shoulder in a well-developed male subject were dissected, and the supra spinatus, as well as the central portion of the deltoid, which was easily divisible into three obvious fasciculi, were weighed, amounting to 10¼ oz. Hence it follows that 1 lb. of such muscle is capable of lifting 1·56 ton through one foot. In the third part similar modes of investigation are applied to the heart, the daily work of which is shown to be 124·6 ft. tons; more than one-third of the daily labouring force of the whole body. Lastly, this calculation is very ingeniously confirmed by a separate hydraulic process—namely, the distance to which jets of arterial blood were thrown on the floor of the operating theatre from an enlarged external epigastric artery, during the removal of a large fibro-cellular tumour by Mr. Colles, at the Meath Hospital. From this source is derived an estimate of 121·82 ft. tons, for the hydraulic work of the heart, which agrees very well with the muscular work as already given, slightly in excess of this figure. We have been much struck by this short memoir. It is an admirable specimen of the application of physical and mathematical analysis to vital forces, which is one of the most promising departments of modern physiology.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

The present arrangements of the *Medical Times and Gazette* do not permit the publication of Births and Marriages.

Many interesting communications on Hospital Mortality, etc., etc., are unavoidably postponed.

Mr. Gordon Jackson.—A Medical Practitioner is not legally bound to attend any person applying for his advice.

An Old Advocate of Beards.—The paper was published in the *Dublin Medical Press.*

Q., *Blackheath*, asks, with respect to a late *Court-Medical*, "by whom was the meeting summoned? was the object stated in the summons? was the defendant informed of the proceedings? had he the opportunity, if desirable, of challenging either of his judges? was a fair use made, and a fair report circulated of their proceedings? ought any report to have been made at all? will another Court-Medical be held on Dr. Purvis?" Such squabbles should be quietly hushed up. The publicity given them, and the contempt to which they are held up by the *South London Journal*, only damage the whole Profession. It were far better for any one of us to put up with a wrong than to let mud be cast on the whole Profession in order to resent it.

The Physique of the Danes.—The powers of endurance of this stout Northern race surpass all belief. They are out in all weather, as thoroughly at home in snow and ice as in rain and mud. They are no unworthy descendants of those Cimbrians who astonished the Romans of Marius so many centuries since by sporting half naked in the snow, and making sledges of their shields to slide down the icy slopes of the Alps,—a rehearsal of the frolics they were wont to indulge in at their Northern home. Those whom the clouds have drenched in the night, the wind, please God, will dry by day. I have often praised the length and width, the thorough fitness and comfort, of their great overcoats. They are made of coarse, spongy cloth, however; they must drink in the moisture greedily, and only let it off leisurely. I have no great faith in their thick Wellington boots either, and I would rather see foot soldiers supplied with the good light shoes and tight gaiters of the Zouave. No mere shoe leather can be proof against many hours' trudging in deep snow; and the boot, which is at all times too hot and hard for pedestrian exercise, is, besides, apt to become a reservoir in very heavy wet. Soaked or nipped, or numbed as they may be, however, these Danes always evince the same degree of manly impassibility. They stand, they lie, they march as they are bidden, never, apparently, bedding any of the scourges with which Heaven may please to visit them. Their mutual good nature, their deference to their officers, their goodwill and courtesy to all men, never belie themselves on the road or in barracks, under canvass or in citizen quarters. There is no instance, I believe, of a complaint against any of them. The fact is, they are all educated, highly-civilised men. They have a self-respect and dignity which stand them in stead of the most efficient discipline; and they are treated by their superiors with a familiar friendliness which could only be safely shown to men who know their places. Their usual demeanour is not gay—not boisterously gay, I should say. Their march is steady and silent, always in compact masses; I hardly saw any voluntary stragglers or laggards even in the disastrous retreat from the Dannewerk. They seem to have a natural instinct for order; they fall into their ranks, as it were, by mere force of gravity. They may be relied upon for stone-wall firmness, I believe—for unshaken fortitude, under the direst trials. Anything

like dash and *impetus*—what the French call *élan*—is not, I should think, to be expected of them. There is, let me be understood, nothing like gloom or sullenness—nothing of the hang-dog look about them. They indulge in a song at times, crack their joke, and have their subdued talk to while away the weariness of their long Danish miles; but, on the whole, they are a quiet, earnest, imperturbable set. To see one of their squadrons of dragoons walking their horses at a sober pace, sitting on their saddles bolt upright, demure, mute, each with a china pipe hanging from his mouth, the pipes as like each other as if they were part and parcel of their uniforms, is a remarkable sight—refreshing, edifying.—*Times' Correspondent*, February 22.

The Assistant Librarian of the Royal Medical and Chirurgical Society.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I should esteem it a favour if you would give me the opportunity of rectifying an omission in the brief remarks with which I acknowledged the vote of thanks accorded to me by the Royal Medical and Chirurgical Society, in common with the other retiring officers, at the annual general meeting.

No one has such opportunities as the Secretaries possess of forming an estimate of the labour undergone by the Assistant-Librarian, Mr. Wheatley, a comparatively small portion of which only is represented by the hours during which he is seen in the library. For assiduity, intelligence, courtesy, and love of his work, he cannot be surpassed. The Secretaries have some work and some responsibility, but the assistance rendered them by Mr. Wheatley reduces their work to a minimum.

I am only doing justice to my own feelings in asking you to receive this expression as a supplement to the remarks I made yesterday. I should not have been guilty of the omission, but that I had not for a moment considered the contingency of having to return thanks, and that I had not, therefore, in any way arranged my thoughts for the emergency.

It is the thoroughness and the spirit with and in which Mr. Wheatley serves our Society which seem to me to give him a claim to a public acknowledgment at our anniversary meetings, at least, on the part of those who have the best opportunities of judging of his qualities, and who profit by them most largely. I am, &c.

EDWARD H. SIEVEKING, M.D., late Honorary Secretary, Royal Medical and Chirurgical Society.

17, Manchester-square, W., March 2.

The Forage Warrant for Army Medical Officers.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your Journal of the 20th ult. it is stated that by a recent warrant "all Medical officers above the rank of Assistant-Surgeon will henceforth be entitled to horse forage, or an equivalent allowance, etc.; and that an Assistant-Surgeon will be allowed forage for a horse if his duty oblige him to keep one."

Fearing this may mislead, I beg to transcribe a paragraph from page 8 of the same Warrant:—

"Each officer of the Horse Brigade of Royal Artillery shall be subject to a stoppage of 6d. a day, and each officer of Cavalry to a stoppage of 8½d. a day, out of his daily pay, for every ration of hay, straw, and oats drawn by him."

Thus, Surgeons of H.M. Artillery and Cavalry are not granted forage allowance, but in common with the Assistant-Surgeons of those corps (who of course are the only officers of the lower grade whose duty obliges them to keep horses) are mulcted in the respective sums of 6d. and 8½d. a day per horse. I am, &c.

A MEDICAL OFFICER.

Hospital Mortality and Hospital Staffs.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The striking differences in the rate of mortality in Metropolitan and Provincial Hospitals, and also in large and small Hospitals, as stated by Dr. W. Farr, arises, to my mind, more from the insufficiency (numerical) of the executive of large Hospitals, than from atmospheric or constitutional differences.

Could the relative severity of cases in metropolitan and provincial Hospitals be satisfactorily substantiated, the result, I believe, would be much less favourable to the former than is generally credited. It has long since appeared to me that the administration of our Medical charities is, for the most part, faulty in the extreme; that each year adds to its defects; that it heaps untold misery on the suffering poor, debars their officers from self-improvement, and deprives Medical students of that teaching which they have an indisputable claim to, and failing which, their after career must be sadly marred, and their utility to the State greatly curtailed. The fault of this state of things rests alone with that section of our Profession whose good fortune has given them official connexion with our Hospitals; for is it not notorious that whenever the governors of Hospitals have attempted to make better provision for the suffering poor, the executive have at once placed themselves in battle array, and have successfully resisted every attempt to encroach on their monopoly? I am, &c.

Clifton, March 1. CHARLES GREIG.

Advertising Doctors.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following advertisement appears daily in the *British Press and Jersey Times*, the principal paper published in St. Helier's. It generally follows a somewhat similar production from the pen of the notorious Dr. La Mert, who is at present honouring Jersey with his presence, and has more than once been preceded by an advertisement eulogising the merits of "real Dantzic spruce" in the following terms:—

"Real Dantzic spruce, real Dantzic spruce,
Deny the truth who can,
It's good for me, it's good for you,
Or—any other man."

Dr. Small is not doing himself or the Royal College of Physicians of Edinburgh any credit by the company in which he advertises, nor is it usual in the Channel Islands to tout for patients in the public prints.

I am, &c. M.R.C.S. Eng.

"Dr. Small, L.R.C.P. Edin., M.R.C.S. Eng., L.A.C., begs to announce that, after many years' experience in England, he has now commenced the practice of his profession in St. Helier's, both as a Physician and Surgeon. He may also be consulted respecting mental disorders, the neglect of which frequently ends in insanity. Poor people may have advice given to them, or have their children vaccinated, without charge, any Wednesday or Saturday before 11 o'clock in the morning.

"13, The Terrace."

Was Man made out of the Dust of the Earth?

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Having been recently favoured with a copy of Dr. Herapath's able address on "Chemistry in its Relation to Medicine and its Collateral Sciences," read before the British Medical Association, August, 1863, I may, perhaps, be permitted, through the medium of your valuable journal, to express my regret that a science so noble and truthful as that of chemistry should be used to invalidate the truth of the Mosaic record. I allude to the following paragraph, page 7, in the published address which has gone forth to the world:—

"From our days of boyhood it has been most assiduously taught us that 'man was made out of the dust of the earth,' and 'as dust thou art so to dust thou shalt return.' Now, this opinion, if literally true, would necessitate the existence of alumina as one of the elements of organised structure, for no soil or earthy material capable of being employed by agriculturists can be formed without alumina existing largely in its constitution, and clay cannot be found without it; therefore chemistry loudly protests against accepting the Mosaic record, in a strictly literal sense, as geology, geography, astronomy, or any other of the physical sciences so absurdly dogmatised upon weekly from the pulpits, by those who have neglected the study of true science, but still profess to teach us that which is beyond all knowledge."

It is evident from the component parts of the human body known by analysis, that the earth supplies all the materials necessary for the formation of man. The fact of alumina or clay entering so largely into the composition of the soil, and not existing as a constituent of the animal body or man, is no proof that man was not made out of the dust of the earth. We must all acknowledge that the creation of man was, medically speaking, a physiological miracle; but chemistry proves, beyond all doubt, that man could have been made out of the "dust of the earth;" and there is no more difficulty in comprehending its literal meaning than there is in the fact of a grain of wheat (which contains no alumina) reproducing itself out of the earth, and becoming the "staff of life"—bread—which contains all the constituents of the human body.

I am, &c. HENRY OSBORN, M.R.C.P. Lond.

Southampton, February 26.

The Proposed Removal of the Medical Society of London.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—There is a good reason for believing that a proposal will shortly be made for the removal of the offices of the Medical Society of London from the present convenient *habitat* in George-street to an obscure square near Gray's-inn-lane, and that, to insure this object, a systematic plan is being pursued of placing in office men, who, from the position of their residences, are favourable to the proposed removal, or who are known to be indifferent about the matter, and ready to vote with a majority.

I would ask the fellows of the Society seriously to reflect on the consequences of such a change before the time arrives for recording their votes. When the meetings were held in Bolt-court, the Society languished, so that, in order to prolong its existence, it became necessary to amalgamate it with a thriving young Society—the Westminster. This, by entailing its removal to a more favourable locality, soon restored it to vigour, and, in spite of quarrels and consequent withdrawals, it is even now in a not unsatisfactory condition. I would ask the fellows to inquire into the cause which operated so injuriously on the Bolt-court sessions. Was it not that the locality was unfavourable? and if so, was it more unfavourable than that which is now about to be proposed? If, then, a position less central to the rapidly growing West-end than that which the Society now holds was sufficient to bring it to so low an ebb as it reached at the time of its amalgamation with the Westminster, how much more so now? Would Queen-square, Gray's-inn-lane, be likely to prove a more attractive locality than Bolt-court? Is it more easy of access? Is it more central?

One of the arguments used in advocating the removal is, that larger rooms than those now occupied could be had at less rent! On this ground a still cheaper locality would have a still stronger claim. Why not, then, select Whitechapel, or some large and cheap house in the transpontine regions? But, even then, it would not be cheaper than the Society's house in Bolt-court, which, if I am correctly informed, was held rent free.

I would now urge the fellows to give their serious consideration to the act which they may be called on to sanction. It seems to me to be most suicidal, for it must be evident that a society which could not continue to exist in Bolt-court is not likely to flourish in Queen-square, Gray's-inn-lane. I am, &c. A FELLOW.

Night Air.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you allow a non-professional, occasional reader of your Journal to put a question in your columns regarding the ventilation of sleeping-rooms at night? I wish, if possible, to get at the cream of Medical science as to the old-fashioned bugbear, "night air."

Reduced to its simplest form, my question is as follows:—Is it an established fact that, speaking generally, and without regard to particular localities, there is something decidedly injurious (on an average) to health in "night air," irrespective of any bad effect from diminished temperature or superabundance of moisture? I speak in regard to our own climate—that of the British Isles generally.

I have lately adopted a very simple method of obtaining a constant supply of fresh external air in my sleeping-room at night without any perceptible draught. The effect is most luxurious; and I would risk the statement, although not a Medical man, that such a change of air, whether night air or not, must be vastly better, on an average, than the foul air to be met with in the hovels of the poor in our cities. But that is not my question. Almost anything would be better than the usual condition of such places. My question refers to the rooms, say, of the middle and upper classes, where ventilation is supposed to be moderately well looked after, and yet where the air of bedrooms during the night usually becomes very indifferent.

I am a victim of phthisis, and therefore, of course, interested in the subject, being desirous of making the most of what little lung power yet

remains. I need not say that I can readily detect the smallest improvement in the air I breathe as to its more important life-supporting power. But there may be invisible enemies which I unwittingly allow to enter by the same door as that which admits a welcome friend; and I have even fancied once or twice that I could almost prove that some influence of an injurious kind had been communicated by the rearing of this "gourd," which seems to promise so much satisfaction.

Your readers will perceive that I do not bring myself forward in this instance as a Howard. Nor do I wish to save a Professional fee, as I am surrounded by everything that I could desire in this respect; but I wish to ascertain the average opinion, if possible, on a question which, though suggested, in the first instance, by personal considerations, is, I need not say, of vast importance to the public generally. I will only add, that I do not wish to gain one farthing by my contrivance, the description of which would occupy very little space, and which I shall be most happy to send to you. My only reason for delaying it is the idea that I may, by writing this letter, obtain information which would be, *à priori*, so decidedly unfavourable to my method, as to make it, possibly, even worse than useless to publish it. I am, &c.

Clifton, Bristol, February 15. WILLIAM C. BURDER, F.R.A.S.

COMMUNICATIONS have been received from—

Dr. GEORGE BUCHANAN; Mr. R. BATES; Dr. P. BRADY; Mr. E. J. MILES; Mr. J. BURNEY YEO; A FELLOW OF THE MEDICAL SOCIETY OF LONDON; Mr. W. B. MURRAY; THE JUNIOR MEDICAL SOCIETY OF LONDON; Mr. B. HUNT; Mr. F. BRADLEY; APOTHECARIES' HALL; AN OLD ADVOCATE OF BEARDS; A SUBSCRIBER; Mr. CHARLES HUNTER; Dr. EDWARD H. SIEVEKING; ROYAL MEDICAL AND CHIRURGICAL SOCIETY; MEDICAL SOCIETY OF LONDON; T. T.; M.R.C.S. ENG.; Mr. F. A. BULLEY; Mr. FREEMAN; EPIDEMIOLOGICAL SOCIETY; A MEDICAL OFFICER; ETHNOLOGICAL SOCIETY OF LONDON; Mr. CHARLES GREIG; Dr. W. FAIRLIE CLARKE; Mr. JAMES TURLE; Dr. HUMPHRY; Mr. G. JACKSON; M.D.; ROYAL INSTITUTION; Dr. CHARLES DRYSDALE.

BOOKS RECEIVED.

1. A Few Speculative and Practical Observations upon Electricity.
2. The True Way to Italian Consolidation, Prosperity, and Peace.
3. A Father's Instructions for the Education of his Daughter. All by James Billet, of Taunton.

*** We have to thank the author of these three pamphlets for information on subjects so diverse. On electricity, though expressly stating that he is "no electrician," he tells us "there must be a vast and inexhaustible storehouse of electricity somewhere." Italy is recommended to cast off the Pope, and reform herself, morally and politically, on the model of England. His daughter is to be educated after twenty-five aphorisms; among other things, to respect old England and the English language, with help of the Eton grammar. She is to walk well, but not to dance. "Furthermore, never let her ride on horseback, because it is unsafe, if not unseemly." She is to read no novels or plays, and "to profit by Christian oratory." She is to be dissuaded from visiting foreign countries, "because so few return the better for it, and so many the worse; moreover, disappointment is the common result, as there are few sights so well worth seeing as those of Great Britain, and no history, habits, or principles so well worth studying." The strict observance of the sabbath is to be enforced. She is to "fail not to shun and faithfully avaunt any Tractarian works," but to cling to the Thirty-nine Articles, as "it is apparent that a popish excrescence, contrarient to the Articles, still clings to our offices, ordinations, catechism, and canons, which cannot be otherwise than offensive to the Most High."

The Westminster Review, New Series, No. XLIX. January, 1864. London: Trübner and Co.

*** This number is more than usually interesting to Medical and scientific readers. An excellent article on Roger Bacon, an Account of the Tunnel under Mount Cenis, an Essay on Astrology and Magic, and another on the Physiology of Sleep, all appeal to our professional sympathies. The *resumé* of contemporary literature is well compiled, and under the head of Science gives full details as to Dr. Chapman's applications of cold to medicine. Whatever may be thought of the views herein advocated, there can be no doubt of the ability by which this periodical is characterised.

Revista de Sanidad Militar Española y. Extranjera, No. 2. Madrid. 1864.

*** This journal of military hygiene appears fortnightly under the management of a director, D. José Maria Santucho, five "redactores," and a secretary. The present number contains accounts of sanitary service in the Philippines, in the United States, and elsewhere, with a review of Dr. Lorado's studies in military Surgery in the Italian Hospitals in 1859, and general news. Its circulation is provided for at a moderate cost in the Peninsula, Balearic Isles, and Canaries. The price is materially advanced for obvious reasons in Cuba, Puerto Rico, St. Domingo, the Philippines, and Fernando Po. It can be obtained in Paris, London, Brussels, New York, and elsewhere.

The Sugar Question as it Affects the Consumer. By M. B. Dureau. London: Longman and Co. 1864.

*** This translation of a French pamphlet is published by Messrs. Travers and Sons, of St. Swithin's-lane, to whose views we have before called attention. They state that the French beet-root sugar maker is represented on our side by the foreign planter, and that the interests of this class, as well as those of the sugar consumer, are antagonistic to our English refiners. The writer requests of the Emperor an extensive reform of the sugar interest.

Bulletin de l'Academie Royale de Médicine de Belgique. 1863. Bruxelles: De Mortier Fils. Nos. 6 and 7.

*** These numbers sustain the high character of the institution from which they originate. A notice of new Surgical instruments from Dr. Soupart, and a report of the commission charged to examine the operation of Dr. Cousot for the cure of vesico-vaginal fistula, deserve notice.

Memoire sur la Périnéo-plastie. Par le Dr. Verhaeghe. Bruxelles: De Mortier Fils. 1863.

*** A reprint from the fifth number of the above Transactions. It suggests some operative improvements, and is illustrated by good lithographs, which are also inserted in that periodical.

Inaugural Address of the Manchester Statistical Society. Session 1863-4. By A. Aspland, F.R.C.S. Manchester. 1863.

The Insane in Private Dwellings. By Arthur Mitchell, A.M., M.D. Edinburgh: Edmonston and Douglas. 1864.

The Medical Mirror. February, 1864. London: H. K. Lewis.

The People's Edition of the British Poets. No. 1.—Cowper. London: W. Tweedie.

The Australian Medical Journal. October, 1863.

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 27, 1864.

BIRTHS.

Births of Boys, 1019; Girls, 981; Total, 2000.
Average of 10 corresponding weeks, 1854-63, 1870·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	828	849	1677
Average of the ten years 1854-63	666·5	667·5	1334·0
Average corrected to increased population..	..	..	1467
Deaths of people above 90	..	..	9

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	2	7	5	4	6	4	6
North ..	618,210	7	2	11	1	9	16	8
Central ..	378,058	2	3	11	1	9	6	4
East ..	571,158	..	10	12	3	20	12	1
South ..	773,175	5	10	18	6	21	21	9
Total ..	2,803,989	16	32	57	15	65	59	28

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·718 in.
Mean temperature	38
Highest point of thermometer	39·3
Lowest point of thermometer	24·4
Mean dew-point temperature	28·5
General direction of wind	N.E.
Whole amount of rain in the week	0·16 in.

APPOINTMENTS FOR THE WEEK.

March 5. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m. Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Professor Frankland, "On the Metallic Elements."

7. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

EPIDEMIOLOGICAL SOCIETY, 8 p.m. Dr. Milroy, "Notes on the Epidemic Diseases of Some of the Natives of India; also, on certain Recent Epidemics Abroad." Dr. Archibald Smith, "On the Tabardillo of Peru."

MEDICAL SOCIETY OF LONDON (General Meeting at 7 p.m.), 8½ p.m. Dr. W. Tilbury Fox, "On the Classification of Skin Diseases."

ODONTOLOGICAL SOCIETY, 8 p.m. Meeting.

ROYAL INSTITUTION, 2 p.m. General Monthly Meeting.

8. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. John Lubbock, Esq., President, "On Ancient British Tumuli." Thos. John Hutchinson, Esq., "On certain Native Tribes of Brazil and Bolivia."

MEDICAL SOCIETY OF LONDON. The Anniversary will be held at Willis's Rooms. Oration by Dr. Thudichum, at 5 p.m. Dinner at 6½ p.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8 p.m. Mr. Bickersteth, of Liverpool, "On a New Operation for Obtaining Union of Ununited Fracture."

ROYAL INSTITUTION, 3 p.m. Professor Marshall, "On Animal Life."

ST. MARY'S HOSPITAL MEDICAL SCHOOL, 8 p.m. Dr. Grailly Hewitt, "Clinical Conference in Midwifery."

9. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m., Middlesex, 1 p.m.; London, 2 p.m.

10. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m., Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Professor Marshall, "On Animal Life."

11. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 8 p.m. Rev. W. H. Brookfield, "On the Use of Books."

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BARTH'S OXYGEN WATER holds free Oxygen in solution. It gently stimulates the functional action of the stomach and secretory organs, and is a very useful beverage. WENTWORTH SCOTT'S Analysis gives as contents of a bottle—"Nearly half an imperial pint of pure distilled water, and about 13·5 cubic inches, or 4·6 grains of gaseous oxygen; equivalent to that contained in 21·4 grains of chlorate of potash." 4s. per dozen.
OXYGENATED WATER COMPANY (LIMITED), 36, LONG-ACRE.

TO STUDENTS, SURGEONS, DENTISTS, AND OTHERS.
The Best House for Second-hand Instruments,
Where there is the Largest Stock in London, is Mr. WILLIAM LAWLEY'S, 78, FARRINGDON-STREET, CITY.
Army and Navy Regulation Cases, Pocket Cases, from 14s. each; Dissecting Cases at 8s. 6d. and 10s. 6d. each.
Photographic Lenses, Opera Race Glasses, and Telescopes, by the best London Makers.
Catalogue of Cameras and Lenses, also of Pocket and Dissecting Cases, forwarded on receipt of Postage Stamps.

Pulvis Jacobi ver, Newbery's,
FRAS. NEWBERY & SONS, 45, ST. PAUL'S CHURCHYARD.

CHLORODYNE CHANCERY SUIT,

JANUARY 11th, 1864.

BROWNE AND DAVENPORT *versus* FREEMAN.

NOTICE.

Advertisements have appeared in the "Lancet," "Medical Times," and "Chemist and Druggist," apparently inserted by the Plaintiffs in this Suit, containing unfounded and perverted statements of the effects of the Affidavits made by various persons on their behalf, which might tend to mislead the public, were they permitted to remain unanswered.

Mr. FREEMAN deprecates most strongly any notice being taken of a Suit until its termination, but he is driven by the unfair acts of the Plaintiffs to set himself right.

It is not true that it was in any way proved that Dr. John Collis Browne was the inventor of Chlorodyne; it is still in issue; and the effects of the Affidavits filed on behalf of Plaintiffs tend to show that Freeman's Chlorodyne is becoming the preferred Medicine.

Affidavits from eminent Physicians and Surgeons, on Mr. Freeman's part, proved clearly that the Plaintiffs had no case, and so the Vice-Chancellor considered, or he would have granted the injunction.

As Mr. FREEMAN is most anxious that the world should know his Chlorodyne, and not be deceived by any other, he intends to make his Bottles, Labels, and Wrappers still more unlike any other makers as he possibly can. He also intends to continue to publish to the world the fact, that he is the Inventor of this valuable Medicine.

In Bottles, 1 *oz.*, 1*s.* 6*d.*; 4 *oz.*, 5*s.*; *and* 8 *oz.*, 8*s.* 6*d.*

Manufactured by the Inventor, RICHARD FREEMAN, Pharmaceutist, Kennington-road, London, S.

CHLORODYNE CHANCERY SUIT.

JANUARY 11th, 1864.

BROWNE AND DAVENPORT versus FREEMAN.

"It was fully proved and established in Court, before Vice-Chancellor Sir W. P. Wood, that Dr. John Collis Browne was the Discoverer of Chlorodyne.

"The Vice-Chancellor observed that Dr. J. Collis Browne's Chlorodyne was known before the Defendant 'Freeman' had ever thought of using the word; that the Defendant's conduct led to a very strong suspicion that there was a gradual course of proceeding on his part to mislead people into the belief that, when they bought his medicine, they were purchasing Dr. J. Collis Browne's Chlorodyne; and that, if the Plaintiffs could show that any one had actually been deceived, an Injunction would be granted."—*Times*, January 12.

Affidavits from eminent Physicians and Surgeons of the Metropolitan Hospitals proved, beyond doubt, that Dr. J. Collis Browne was the discoverer of Chlorodyne; that they prescribe it largely, and invariably mean the original Chlorodyne of Dr. J. Collis Browne.

An Affidavit by Mr. Warington, Chemical Operator to the Apothecaries' Company of London, also established the fact, that Dr. Browne was the inventor of Chlorodyne; that the Company receive large orders for the supply of Chlorodyne for the Public Service, Hospitals, Merchants, and the Profession; and that, when Chlorodyne is ordered, they invariably supply Dr. J. C. Browne's.

Affidavits from Messrs. John Bell, Pharmaceutical Chemists, 338, Oxford-street, and several leading Wholesale Druggists of London, to the same effect, and that, when Chlorodyne is ordered, they invariably supply Dr. J. Collis Browne's.

Sole Manufacturer—J. T. DAVENPORT, 33, Great Russell-street, Bloomsbury, London.

In Bottles, 1 oz, 3s.; 2 oz., 5s.; 4 oz., 8s.; 10 oz., 15s.

Neither Physician nor Surgeon in plaintiff's suit even mentioned Freeman's compound; so much for the *truth* of its being the *preferred* medicine, as stated by the defendant. It is equally untrue that the Vice-Chancellor intimated in the slightest degree that the defendant had the right to the sole use of the prefix Original, as quoted in his advertisement in the "Pharmaceutical Journal," March 1, 1864.

The observations of the Vice-Chancellor, as reported in the "Times," speak for themselves.

Each Affidavit from Physicians, Surgeons, and Chemists affirms that Dr. Browne's Chlorodyne was known to them in 1855; whereas the Defendant "Freeman's" Compound was not heard of until 1859, after the Original Chlorodyne had obtained world-wide fame.

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ORIGINAL LECTURES.

LECTURES ON THE BRITISH PHARMACOPŒIA: ITS CONSTRUCTION, ITS COMPARISON WITH THE LONDON PHARMACOPŒIA, AND THE VALUE OF ITS NEW REMEDIES IN THE TREATMENT OF DISEASE.

DELIVERED AT

The Royal College of Physicians,

By A. B. GARROD, M.D., F.R.S.,

Fellow of the Royal College of Physicians; Physician to King's College Hospital.

LECTURE IV., FEBRUARY 5.

(Continued from page 249.)

The British Pharmacopœia will be found rich in Anthelmintics; and four new drugs possessing the characters of this class have been added to the Materia Medica list. These are the Male Fern, Kamela, Kousso, and Santonica.

Filix, or Fern Root, the dried Rhizome of Aspidium Filix mas, has been occasionally used in the form of powder, but at the present time the preparation introduced into the Pharmacopœia is almost universally substituted in its place; this is called a liquid extract, Extractum Filicis liquidum, and is, in fact, the oily substance of the rhizome, extracted by means of ether.

The value of this drug as a therapeutic agent is so well known that I need scarcely occupy your time in speaking of its action. As a remedy in tapeworm, it appears to cause, in successful cases, the death of the entozoon, and by itself, or by a purgative subsequently administered, effects its expulsion from the bowels. The dose of the so-called liquid or oily extract is from one fluid drachm upwards.

Kamela is much less known than Fern, and demands a few observations upon its nature and action. You will observe that it is a coarse orange-red powder, consisting of minute granules. It is the powder which adheres to the capsules of the Euphorbeaceous tree, named *Rottlera Tinctoria*, growing in India, and the substance known in that country by the name of Wurrus, and used as a dye.

Kamela, as imported, is for the most part soluble in rectified spirit, the residue consisting in a great measure of tufted hairs; the soluble portion is of a resinous character, insoluble in water, but dissolved by alkalies, from which it is precipitated by the addition of acids. Its further composition is unknown. Kamela has been largely employed in India in the treatment of tape-worm; and an account of the cases in which it has been administered by Dr. Gordon is to be found in the *Indian Journal of Medical Science* for 1858. It has also been used to some extent in this country, and reports of cases treated here are scattered in the journals. I have employed it in a few instances. My first trial was one of tape-worm, occurring in a gentleman, who had evidently suffered for several years, but in whom the symptoms were masked, two drachms were administered; the proper precautions of fasting for some hours, and the previous use of a purgative, having been taken: a great number of evacuations were produced; sixteen feet of the worm came away; but the head could not be discovered, although portions very close to it were observed. No symptoms of its presence have since been manifested, although two years and a-half have elapsed. In every instance in which I have ordered Kamela a large amount of worm has been expelled, but in some of the patients there has been a return of the affection.

I should consider Kamela a very valuable anthelmintic, and worthy of trial when other remedies have failed. It usually acts as a powerful purgative, and seldom requires the subsequent administration of castor-oil or any other cathartic.

It can be given in doses of one, two, or even three drachms, suspended in gruel, mucilage, or syrup.

Cusso, or Kousso, having now been long employed in this country as a remedy, needs but few words from me. It consists of the flowery tops of a rosaceous tree growing in Abyssinia, and known by the name of Brayera Anthelmintica, and in the specimen you will observe the pink coloured petals, as well as the calyx and stalks; you will likewise notice the peculiar blended odour of tea and hay. One preparation only, Infusum Cusso, is made officinal, in which four fluid ounces contain a quarter of an ounce of the drug, and the preparation is to be administered without previous straining, so that the infused powder is exhibited as well as the fluid portion. That Kousso is a powerful remedy in cases of tapeworm there can be little doubt; but it requires numerous comparative trials with other drugs of the same class, before an opinion can be advanced as to its possessing properties superior to Male Fern, Kamela, and many others. For an adult the dose is from a quarter to half an ounce, in the form of the before-mentioned infusion. The necessity of administering the residual substance, as well as the infusion, would imply that water is unable to abstract the whole of its active principle, the composition of which, as I should have mentioned, is entirely unknown. The great bulk of the dose, due to the swelling up of the drug in making the infusion, renders Kousso a remedy somewhat difficult to be swallowed by the majority of patients.

The last anthelmintic to which I shall call your attention is *Santonica*, or, more especially, *Santonin*, its active principle. Santonica consists of the unexpanded flower-heads of some undetermined species of Artemisia, and from its resemblance to seeds the drug is commonly known by the name of *Worm Seed*. On carefully examining the specimen, the seeds will be found to consist of imbricated, involucral scales, enclosing the tubular flowers. From this drug a crystallised body termed Santonin has been obtained, and you will observe that it is in white rhombic prisms, having the property of becoming yellow by exposure to light. It composition is represented by the formula $C_{30}H_{18}O_6$, and it possesses the properties of a crystallised, resinous acid, almost insoluble in water, but dissolved by alkaline solutions. Santonica, or the worm seed itself, has been occasionally employed as an anthelmintic, in doses of from one to two drachms; but the objections to the use of Kousso, as far as its bulk is concerned, apply equally to Santonica. It is different, however, with regard to Santonin, as the dose would be only from two to six grains, and, beside this, it is inodorous and tasteless, and therefore peculiarly adapted for administration to children. There appears to be good clinical evidence of its value as an anthelmintic, and it has proved very successful in cases where the lumbricus or round worm is present. It has likewise been of service in cases of tape and threadworm. In addition to its worm-destroying property, Santonica has been stated to possess anti-periodic powers, and I should not omit to mention that in children a large dose has been followed by purging, vomiting, and symptoms of great prostration.

There is one introduction into the British Pharmacopœia which I fear will not be looked upon with any great favour in England. I allude to the Laurocerasus, or the Cherry-Laurel Leaves, and the preparation called Aqua Laurocerasi, or Cherry-Laurel Water. I may state that this drug would not now have been made officinal had it not been already a favourite remedy in Scotland and Ireland, and in the Pharmacopœias of both these countries.

The cherry-laurel leaf contains a principle identical with that of the bitter almond, and of many other plants of the same natural order, and termed Amygdaline ($C_{40}H_{27}NO_{22}$). This substance, itself not poisonous, readily breaks up under the influence of albuminous ferments, such as occur in the same plants, into Volatile Oil of Bitter Almond or Hydruret of Benzole and Hydrocyanic Acid. Hence, when the fresh leaves are chopped and crushed in a mortar, macerated for some hours in water, and then distilled, the distillate contains both the volatile oil and hydrocyanic acid, and forms the Aqua Laurocerasi of the Pharmacopœia, which possesses a fragrant odour and bitter taste, derived from these two ingredients. Probably there is also some other volatile matter present which exists naturally in the plant. Cherry-Laurel Water is an elegant mode of giving Hydrocyanic Acid, but there are, in my opinion, grave objections to its use. In the first place, it is a preparation very liable to vary in composition, from the time of year the plant is gathered, the differences of seasons, and other causes. Secondly, it is not wanted, as we have another form for prescribing Hydrocyanic Acid, and we have no evidence showing the superiority of this water over the dilute acid; and in the case of such powerful remedies as Prussic Acid, it is most desirable to keep the preparations as simple and few as possible.

For an adult the dose is from half a fluid drachm to one drachm. I may, perhaps, mention here that the British Pharmacopœia Dilute Hydrocyanic Acid remains of the same

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strength as the London, containing 2 per cent. of real acid; but it differs considerably from the Edinburgh preparation.

Before leaving the consideration of this acid, I wish to make one remark on the desirability of Medical Practitioners *not* prescribing an acid termed *Scheele's Acid*, and which contains 4 per cent. of real hydrocyanic acid in lieu of 2. I have been told by at least one Medical man that the effects of Scheele's acid are much superior to those of the London College; but those who imagine such to be the case should be informed that the chemist first makes a strong acid, then dilutes it, so that it contains 4 per cent., and labels it "Scheele's;" dilutes it still further to 2 per cent., and calls it "Pharmacopœia Acid." I will leave it to those who make the assertion to explain the possible difference in the therapeutic action of the two preparations.

In the Pharmacopœia of this College of 1835, Bromide of Potassium was introduced, chiefly, I believe, from the statement of Dr. Robert Williams, who considered that it was a valuable remedy in the treatment of chronic enlargements of the liver and spleen; it was afterwards removed from this work in 1851, no clinical evidence having been afforded in the interim of its possessing any powers which entitled it to be placed in the Materia Medica as an officinal medicine. It has, however, now found admission into the British Pharmacopœia under the head of Potassii Bromidum, and I shall, therefore, endeavour to show you the claims upon which its title is founded. In its composition, Bromide of Potassium is analogous to chloride and iodide of the same metal, and in its physical characters it is also closely allied; if pure, it gives no blue colour when treated with starch and chlorine, but an orange precipitate is then produced. Its formula is represented by the symbol K.Br., and the percentage of bromine in the salt is rather more than 67. No officinal preparations are contained in the work, but as the salt is very soluble in water, it can readily be given in a liquid form.

On the first introduction of Bromide of Potassium, it was thought to be very analogous in its action to the Iodide, although somewhat less powerful; but little, in fact, was known about its powers. About nine years since I made some extensive trials of this medicine, chiefly in Hospital practice, and found that, in certain cases of eruptions of the skin, as in syphilitic psoriasis, it acted as a curative agent, or, at least, patients when under its influence lost the affections under which they had been suffering. I was induced to give the bromide in these cases as the patients were intolerant of the action of the iodide. I discovered, likewise, that Bromide of Potassium, when pure, did not give rise to any of the symptoms to which the name of Iodism has been applied. I did, indeed, occasionally notice these symptoms, but this led me more carefully to examine the salts which had been dispensed; and it was ascertained that, with one or two exceptions, the Bromide, as sold in London, contained notable quantities of the Iodide of Potassium. After this, I took precautions to have the Bromide pure in all my observations upon its action, and the results I arrived at may be thus summed up:—

1. It produces none of the irritation of the mucous membranes of the nose and fauces—no coryza.

2. Some patients experience a peculiar sensation of dryness of the throat and neighbouring parts.

3. When given in large medicinal doses, sleepiness or drowsiness, and dull headache were occasionally noticed.

4. When administered in very large amounts, some loss of power was noticed in the lower extremities, which passed off when the medicine was discontinued.

5. The therapeutic action was decidedly what may be termed alterative—that is, it relieved certain forms of chronic disease, as syphilitic skin affections.

6. No marked action was observed upon the skin or kidneys.

Soon after these observations had been made, Sir Charles Locock stated that he had found Bromide of Potassium useful in hysterical epilepsy, and in other nervous affections connected with uterine disturbance, and I was from this led to make further trials of the remedy, and have found that—

7. Bromide of Potassium exerts a most powerful influence on the generative organs, lowering their functions in a remarkable degree.

8. It is a remedy possessing most valuable powers in diseases dependent on, and accompanied by, excitement or over action of the generative organs; and hence it may be given with advantage in nymphomania, priapism, certain forms of menorrhagia, especially that occurring at the climacteric period; as likewise in nervous convulsive diseases dependent on uterine irritation; and lastly, in some ovarian tumours.

9. It appears to produce an anæsthetic condition of the larynx and pharynx, and hence has been usefully employed in examinations and operations of these parts.

Bromide of Ammonium has been lately proposed, more especially for the production of the last-named effects, but I am not aware that it possesses any powers superior to those of the salt of potassium. The bromide of potassium may be given in doses of from five grains to ten or even fifteen grains to the adult.

It is curious to observe and compare the physiological and therapeutic powers of three salts so analogous to each other in a chemical point of view—namely, the Chloride, Bromide, and Iodide of Potassium, the first producing but little action unless given in large quantities, probably from its being a normal constituent of the body; the second, the bromide, abnormal to the economy, or existing only in infinitesimal amounts, acting especially on the nervous system; the third, the iodide, also abnormal to the body, having its influence more especially directed to the mucous membranes and secreting organs. The investigation of such actions in relation to the composition of the substances administered may probably one day afford some clue to the comprehension of the effects of remedies.

In the Arsenical preparations there will be found some alterations in the British Pharmacopœia when compared with the London. In the latter work arsenious acid is placed in the list, and from it two compounds are formed—namely Liquor Potassæ Arsenitis, and Liquor Arsenici Chloridi. In the first-named solution, the arsenious acid is probably dissolved wholly or in part in the form of the Arsenite of Potash; in the second, the arsenious acid is held in solution by the hydrochloric acid, but can scarcely be supposed to exist as Chloride of Arsenic. This last preparation was that one introduced into the last edition of the London Pharmacopœia, from its being supposed to be less irritant to the digestive organs than the ordinary arsenical solution. As the preparation is omitted in the British Pharmacopœia, it may be well to endeavour to ascertain the reasons for its rejection.

In the first place it can be proved to contain arsenious acid, and not chloride of arsenic; and secondly, there is abundant evidence to show that it is an effective medicine, and valuable in the treatment of skin affections, and some forms of nervous diseases, but as yet I am unacquainted with any comparative trials with Liquor Potassæ Arsenitis which demonstrate its less irritant operation, although this has been asserted to be the fact. In some cases, when I have found that the patients were very intolerant of the ordinary arsenical solution, I have substituted the so-called Liquor Arsenici Chloridi, but have invariably seen the same intolerance, provided that the medicines were administered in equivalent doses, that is, in doses containing the same amounts of metallic arsenic. In some cases I have seen considerable irritation follow the exhibition of even one minim. It might be argued in favour of the retention of the Liquor Arsenici Chloridi, that it is a convenient form for giving arsenic when we wish at the same time to administer an acid, this is correct; but there can be no objection in such cases to give the ordinary arsenical solution, the small amount of free carbonate of potash not very appreciably interfering with the acidity of the draught. The Liquor Arsenici Chloridi, therefore, was omitted, not on account of its having any objectionable properties, but simply to avoid increasing the preparations of arsenic.

In the British Pharmacopœia we have the Liquor Potassæ Arsenitis, or Fowler's Solution, under the old name of Liquor Arsenicalis; besides which, two other salts have been added, namely, the Arseniate of Soda and the Arseniate of Iron.

Arseniate of Soda has been long employed on the Continent, and it has also been used in this country, and a solution of the salt, in the proportion of one grain to ten fluid drachms of water, is known and prescribed under the name of Pearson's Solution. Upon what claim has this salt been introduced into the Pharmacopœia, especially when the Liquor Arsenici Chloridi has been omitted? Let us look to the salt, its composition and properties.

The Metal Arsenic forms, with oxygen, two well-defined oxides, the first known by the name of White Arsenic, or Arsenious Acid, consisting of an equivalent of the metal and three equivalents of oxygen; the second, Arsenic Acid, in which there are five equivalents of oxygen to one of the metal. In this, as well as in very many other respects, Arsenic is closely allied to Phosphorus, and this resemblance may prove of importance in explaining the physiological action and

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therapeutic properties of the compounds of the former element. When Arsenic Acid is neutralised with Carbonate of Soda, the Arseniate of Soda of the Pharmacopœia is formed—a salt, containing two equivalents of soda and one of water to each equivalent of arsenic acid, which is tribasic. When in a crystallised state, either fourteen or twenty-four equivalents more of water are present, according to the concentration and temperature of the solution from which the crystals are deposited. These salts have, of course, different forms, but in both cases are isomorphous with the corresponding phosphates of the same base, as will be seen in the specimens on the table and the formula on the board:—

Arsenious Acid = AsO_3 — Phosphorus Acid = PO_3.
Arsenic Acid = AsO_5 — Phosphoric Acid = PO_5.

Arseniate of Soda = $2NaO,HO,AsO_5 + \overline{14 \text{ or } 24}$ HO.

Phosphate of Soda = $2NaO,HO,PO_5 + \overline{14 \text{ or } 24}$ HO.

These considerations might lead us to think that, not improbably, arsenic, in its highest state of oxidation, in a state, also, which is so analogous to phosphoric acid, which exists so largely in the body, might prove much less irritating to the system than when the metal is in the form of arsenious acid, but to establish this point it was necessary to appeal to clinical experience. This I have done in several cases. The first instance was in a woman about 50 years of age, suffering from a chronic form of joint affection. Liquor Arsenicalis having produced considerable disturbance, as evidenced by the irritation of the eyelids and nausea, was omitted, and the symptoms allowed to subside; a solution of arseniate of soda accurately prepared, so as to contain exactly the same amount of metallic arsenic as the ordinary arsenical solution, was next administered, and it was found not only was she able to bear the same amount of arsenic without discomfort, but even double the quantity.

The second case selected was a young woman about 19 years old, who had a severe eczematous affection of the scalp and ears. Liq. Potassæ Arsenitis, in doses of four minims, caused much annoyance after a few days, whereas the amount of the solution of Arseniate of Soda could be increased to ten or twelve minims before disturbance of the system ensued. I next tried the effect of the Arseniate of Soda upon a gentleman who had repeatedly endeavoured, but in vain, to take a single minim of the Liquor Arsenicalis for a slight skin affection; he was, however, able to take two minims of the Arseniate of Soda solution of the before-mentioned strength for some days without annoyance.

To conclude this subject, I may state that within the last week I have been informed by letter of the effects of the Arseniate of Soda upon the wife of a Physician, who consulted me a short time since, and I will read a short extract from this Physician's letter:—

"You wished me to acquaint you with the result of the use of the Arseniate of Soda in the case of my wife, whom you were kind enough to prescribe for some weeks since. The result is highly satisfactory, and none of the bad effects following the use of Fowler's Solution have shown themselves. There has been a much greater tolerance of the drug; less irritation of the conjunctiva; no gastric irritation; and the eczema has nearly disappeared, and that in a shorter time than on former occasions, when Fowler's Solution was given."

It appears, therefore, if these different observations are sufficiently numerous to be depended on, that the Arseniate of Soda is less irritating than the Arsenite, when the amount of Arsenic given is the same.

In the British Pharmacopœia, a solution of the Arseniate of Soda is ordered, Liquor Sodæ Arseniatis, containing four grains of the dried salt in each fluid ounce. The dried salt has been ordered, to avoid the possibility of error arising from the different quantities of water with which the salt crystallises. By calculation, it will be found that the amount of Metallic Arsenic in the solution of the Arseniate of Soda is to that in the Solution of Arsenite of Potash, nearly in the proportion of 1 to 2, or as 99 to 186.

Arseniate of Iron will also be found in the Pharmacopœia. It corresponds in composition with the blue Phosphate of Iron, Arsenic replacing Phosphorus. It occurs as a dirty green powder, and has been administered internally in carcinomatous affections, and in the form of an ointment has been applied to cancerous ulcers. The dose is about a twentieth of a grain upwards.

I have, however, had no experience of the therapeutic powers of this salt, but cannot conceive that it possesses properties which render it peculiarly desirable as a remedial agent.

ORIGINAL COMMUNICATIONS.

ON A CASE OF

TRAUMATIC TETANUS, IN THE TREATMENT OF WHICH NICOTINE WAS EXHIBITED.

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CONSIDERING what difficulties surround the treatment of tetanus for the most part, and believing that an approximation towards any certain mode of cure equally necessitates the publicity of the untoward as of the successful cases, I have thought it right to place on record the following instance, in which tetanus was treated with nicotine, though without success:—

The use of tobacco in various modes, as well externally as internally, for the purpose of relaxing muscular action in diverse forms of disease, is, of course, no new theme, as our literature is replete with instances in which it has been resorted to, with, of course, variable results. Among other diseases, tetanus has been, in many cases, treated with tobacco, and in several with, apparently, the very happiest effects. (a) It was, therefore, but a natural and easy step to make trial of the alkaloid of tobacco in the same formidable disease; and thus it was that the Rev. Professor Haughton, of Dublin, was led to experiment upon the administration of this violent poison (b) in cases of tetanus, and as an antidote to that other poison which produces symptoms most allied to the same formidable disease, viz., strychnia.(c) The first experiments of Dr. Haughton were brought before the notice of the Royal Irish Academy in the latter part of 1856; and subsequently he published, in the number of the *Dublin Quarterly Journal of Medical Science* for August, 1862,(d) a communication detailing an account of three cases of tetanus treated by nicotine; one of poisoning by strychnia, in the treatment of which tobacco was used by Dr. P. C. Smyly, of Dublin; and also a case in which tetanus in a horse was treated by nicotine.(e)

Previously, however, to the publicity given to Dr. Haughton's experiments, it had occurred to Mr. Simon, of St. Thomas's Hospital, to try nicotine in a case of tetanus, and of this trial Mr. Simon informed me, in conversation, on hearing of the case which I am about to relate in detail, as well as by letter, since speaking with me. I have learnt also from Mr. Savory, of St. Bartholomew's Hospital, that since, and owing to, the recommendation of Professor Haughton, he has made trial of nicotine as a mode of treatment in this disease. I do not think that an apology can be needed on my part for prefacing the narrative of my case by quoting the words of these gentlemen on so important a subject (having liberty from them so to do). In the communication from Mr. Simon some remarks also exist, as appears in Dr. Haughton's pamphlet,(f) on the antagonism betwixt the effects of nicotine and those of strychnine. He proceeds, in his note to me, to observe:—"It was, I think, in 1852, or the first half of 1853, that I tried nicotine in a case of acute tetanus. . . I was sure that if tobacco was to do good (*i.e.*, in tetanus), it must be in some less unmanageable form than the forms in which hitherto it had been used. So I determined to try nicotine; and, as I had no knowledge of previous experiments with it, I gave it at first charily—I think a quarter of a minim for a first dose, followed in an hour

(a) Regarding this mode of treatment, see Mr. Curling's work on "Tetanus," 1836. After considering the histories of 128 cases of traumatic tetanus treated in almost every possible manner, he observes (page 177):—"I conceive that more has now been advanced in proof of the efficacy of tobacco than can be adduced in favour of any other remedy yet resorted to. I have not, indeed, succeeded in finding a single case in which, being fully and fairly tried before the powers of the constitution had given way, it has been known to fail." "I hold it to be the best remedy that we at present possess," etc., etc.

(b) It is stated, on good authority, that one half of a drop of nicotine placed on the tongue of a dog will cause its death in a very few minutes.

(c) Dr. O'Reilly, of St. Louis, Missouri, treated a case of strychnia poisoning by tobacco infusion with success (six grains of strychnine having been taken).—See *Med. Times and Gaz.*, 1858, Jan. 12.

(d) Page 172.

(e) A brief summary of these cases will be found in an interesting notice which appeared in the number of this Journal for October 20, 1863, p. 442.

(f) Reprint of his paper in the *Dublin Quarterly Journal*, vol. xxxiv., p. 172.

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by a second; but I soon learnt that the doses might be closer together than I first gave them, and I think the frequency with which they were given (till their full effect was produced) ranged from every quarter to every half hour. For forty-eight hours it seemed as if the disease was conquered, *for it made no progress;* but at the end of about this time it almost suddenly began to go a-head, and I never saw more violent, or more frequent, or more painful seizures than those which the man now had, and with which he, of course, presently died. It was during this relapse, if I may so call it, of the disease, that I gave my maximum doses, and quite without effect. It is so very unusual a thing for tetanus, which has set in recently, to suspend itself for forty-eight hours, that at the time I was disposed to believe the nicotine had been the cause of this suspension. And in some experiments which I was doing about the same time on the antagonism of nicotine and strychnia, I suspected (but did not quite satisfy myself) that the former drug would postpone, where it would not otherwise appreciably antagonise the poisonous action of strychnia. Some years after my first trial of nicotine, I tried it in a second case of tetanus—one not of an acute kind. It entirely failed to do good; but when I had, after full trial, discontinued it, I treated the patient with tinct. ferri sesquichlorid., and the case terminated in recovery. About the same time I had a second case of recovery (also from not acute tetanus) under the treatment with tinct. ferri sesquichlor."

Such is the experience of Mr. Simon as regards two cases in which he made use of nicotine in tetanus. His attempts to overcome tetanus in this way took place prior to those of Dr. Haughton. But since those of Dr. Haughton, as before said, Mr. Savory treated a case of tetanus at St. Bartholomew's Hospital with the nicotine. The details of this case have, I believe, not yet been published; and I have to thank Mr. Savory for placing at my service the following notes of the case:—

"Sarah Beckett, aged 8 years, a delicate girl, was admitted into Mary Ward on October 22, 1862, by Mr. Wood, who first saw her in the surgery. At that time, she lay quietly in her mother's arms. The back was slightly arched; the lower jaw fixed; pupils dilated; no convulsive movements.

The mother stated that the child was in perfect health on the 19th; but that on the 20th she had a convulsion. She knew no cause for the child's illness; but stated that, a month ago, she was struck on the head with a "brickbat." A small scar, about half-an-inch long, could be seen where she was struck, and she complained of much pain when it was pressed. Ordered—enema haust. sennæ comp. To be put into a warm bath.

23rd.—Remained much the same as yesterday. To have wine ℥vj.

24th, 1 p.m.—The child was seen by Mr. Savory, who divided the cicatrix on the scalp by a small crucial incision. No pus escaped. There was no apparent change in the child. To have morphiæ acetat., gr. $\frac{1}{8}$; æther. chlor., ♏vij.; mist. camph., ℥ij., 6tâ quaque horâ. 5 p.m.—The same. No action of the bowels had occurred. Haust. morphiæ, 4tâ quaque horâ; hydrarg. chlorid., gr. iij., statim.

25th.—The child appeared neither better nor worse. The corners of the mouth were visibly depressed. Bowels freely moved.

26th.—The child lay quiet. Drank large quantities of milk, and also wine and broth freely. The back remained arched, and the abdominal muscles were rigid. To take morphiæ acetat., gr. $\frac{1}{4}$, in the same mixture every six hours. Strong beef tea, Oij.

29th.—Up to this time, the morphia had produced no effect on the muscles, although the child had been for some time completely under its influence. The back was arched, and the corners of the mouth very much depressed. The forearms were somewhat rigidly flexed on the arms, and the fingers bent into the palms. The morphia to be discontinued. Nicotine, gr. iij.; alcohol, ℥i. ♏v. to be injected subcutaneously every six hours.

This plan of treament was continued until November 2. The child complained but little of the injection, which did not excite spasm. After the first dose or two, some change for the better was apparent. The pulse (120) was not perceptibly affected; but the stiffness seemed less, and the respiration deeper. But in the course of thirty hours or so, this apparent amendment passed away, and then any attempt at examination or disturbance produced spasms, which gradually increased in severity and frequency.

The pupils were often examined, but no decided effect on them was produced by the nicotine; yet its general influence on the condition of the child was marked. She lay passive, drowsy, almost insensible, when fully under the effects of it.

Brandy was freely given during this time, and when the nicotine was stopped, the general effects of it passed off.

On the 8th, the child gradually sank and died. On post-mortem examination, the dura mater was found closely adherent to the skull-cap. There was some fluid in the posterior fossa of the skull; but, Mr. Savory thought, not more than usual. The structure of the brain was found to be firm and healthy throughout. Nothing wrong was discovered in the spinal cord or canal. The other organs were healthy."

In the following year, Mr. Jolliffe Tuffnell, of Dublin, successfully treated a case of traumatic tetanus with nicotine, the particulars of which may be found in the *Dublin Medical Press.* (g) And, subsequently, Dr. Fleming brought before the Surgical Society of Ireland a case of acute traumatic tetanus which had occurred in the Richmond Hospital at Dublin, in which he tried the effects of nicotine (in two-drop doses, exhibited along with a little brandy and water every three or four hours until eight drops had been swallowed). The case proved fatal eventually, but Dr. Fleming considered that the severity and frequency of the symptoms were undoubtedly diminished by the nicotine. Again, in the *Dublin Medical Press* (h) will be found related a case of traumatic tetanus, in which Dr. John Barton, assisted by Professor Haughton, exhibited the nicotine with the result of diminishing the violence of the spasm to a very great extent, and for a time controlling the disease.

I will now, without further preamble, proceed to describe the particulars of a case of acute tetanus which occurred in St. George's Hospital last autumn, and which my friend and colleague, Mr. Holmes, asked me to treat in consultation with himself; at the same time taking the opportunity of thanking our Surgical Registrar, Mr. Braine, for the notes which he had taken, and has placed at my disposal, and which constitute a valuable addition to my own memoranda of the case.

The patient, Mary G., a thin, delicate-looking girl, aged 14 years, was admitted into St. George's Hospital on August 29, 1863, having a long lacerated wound of the soft parts of both sides of the left leg, which had been caught in the spokes of the wheel of a cart. The edges of the wound were much bruised, and a few days after her admission began to slough. Subsequently, the wound became cleaner, and her general health improved under the use of tonics and occasional sedatives, until the evening of September 6, when she complained of what was called "slight sore throat." Croton oil and colocynth were given. On the following morning (September 7) there was trismus, the mouth was firmly closed, and the risus sardonicus existed. The lips were dry, the pulse small, weak, and 156 per minute. The pills had acted once. At noon I was desired by Mr. Holmes to see her with him, and found her lying flat in bed, with the head raised, the eyes half closed, the lips tightly drawn across the gums, the upper teeth and gums being freely exposed. She was utterly unable to open the mouth, and the muscles of the face were perfectly rigid, especially the masseter and buccinator on either side, and the muscles of the shoulders and back of the neck. The skin was cool; the pulse feeble, about 135 per minute. The intellect was quite clear. Both the pupils were rather large, but equal, and acting to light. Ordered, a repetition of croton oil and the compound colocynth pill, and a lotion to the wound, consisting of half an ounce of extract of belladonna to a pint of water. At 5 p.m. the bowels had acted very freely. At this stage I talked with Mr. Holmes on the advisability of amputating the limb, seeing that, owing to the nature and extent of the local injury, it would have been quite impossible to have divided separately such nervous trunks as supplied the parts implicated. Mr. Holmes consulted with two of his Surgical colleagues, Mr. Pollock and Mr. Lee, and, in consequence, the idea of amputation was rejected, as Mr. Holmes said, on the following grounds:—"1. We thought that it was too late, as the irritation, or the diseased condition, or whatever you like to call it, would be propagated by this time up the nerves, far beyond the point of section in amputation. 2. We did not think it impossible that the patient might survive without amputation. 3. She seemed so weak, that amputation would be a serious danger to her, as would (I

(g) See volume for 1863, January 7, page 1. The case was read at the Surgical Society of Dublin, and was one of compound fracture both f radius and ulna.

(h) July, 1863.

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think) the necessary chloroformisation. 4. No success has, as yet, attended amputation of the thigh, I believe."

September 8, 9 a.m.—There had been very little sleep, but the patient had swallowed between one and two pints of beef-tea. There had been no spasmodic action of the muscles of the back or belly (opis- or emprosthotonos). In all important points the symptoms were the same as on the evening before. Pounded ice was ordered to be applied along the spine, enclosed in a piece of intestine. 11.30 a.m.—The risus sardonicus had increased, the cheeks were flushed, but the rest of the face was pale. At her own request she was raised in bed, but the attempt to swallow a teaspoonful of porter, which she wished for, brought on spasm of the muscles of the neck and face, and she swallowed it with great difficulty; a few minutes afterwards she swallowed it with great ease. The respiration was quiet, and 36 per minute; the pulse 140. The teeth could be separated a little. As much strong beef-tea and wine as possible were ordered to be given; and it was agreed to try half-drachm doses of spirits of turpentine with the acacia mixture and water, every four hours. One dose only could be given, owing to the amount of distress which it caused. At 3 p.m. it was agreed by Mr. Holmes and myself to try nicotine; and accordingly, after procuring a genuine specimen from Messrs. Bullock and Reynolds, we proceeded, at 9.15 p.m., to give four drops of a solution containing half a grain, in ten minims of water, in a little brandy-and-water.(i) At this time the forehead was much wrinkled; the abdominal muscles, as well as those of the neck and shoulders, were very tense. There was no hiccup, but great difficulty in swallowing. The intelligence was unimpaired; the pupils dilated as before, but acting readily to light. Pulse 140, and the skin very cold. The urine was passed along with the fæces. At 11 p.m. she stated that she felt altogether easier, and the general aspect was certainly improved. The pulse was 144, and the skin perfectly warm. The heart's action was greater than it had been. There were no spasmodic seizures, but the muscles of the abdomen were still very rigid. There was no increased perspiration. It was determined to administer an enema containing eight drops of the above-mentioned solution of nicotine, along with beef-tea and a little brandy; and it was ordered that a similar injection should be exhibited at two o'clock in the course of the night. The first injection was retained for an hour without producing any particular result, as was also an injection containing egg and brandy and beef-tea. At 5.30 a.m. on the following morning the nicotine enema was repeated, but rejected almost entire.

9th, 9 a.m.—There had been no sleep, and slight "wandering" had existed in the night. The patient complained greatly of the throat, and the tongue was very sore. The neck was very rigid, and the muscles of the lips stretched as before. Occasionally, general twitchings of the entire body existed, and especially starting of the injured leg. The patient raised the arms readily, and held on by the bed-rope as usual. No perspiration had existed, but the skin was warm; pulse 124. I gave the patient eight drops of the nicotine solution (k) with brandy and water, and desired it to be repeated at 12 a.m. The first of these doses was retained in the stomach; the second could not be swallowed, owing to spasm of the throat, and, in its place, I ordered twelve drops of the solution to be administered with beef-tea and egg as an enema. About this time (12·30 a.m.) attacks of opisthotonos came on (from four to eight in the hour), during which she had the sensation of falling down. These attacks were not very severe, though sufficiently marked, but became considerably intensified when attempts were made to give her the medicine. Much spasm also about the throat and "frothing" at the mouth was occasioned. Very little of the medicine was swallowed, but she could open the mouth about a quarter of an inch. A nutritive injection was retained. The pulse was regular, and 136 per minute. At 12.55 p.m., twelve drops of the nicotine solution was administered in a small enema. No spasm arose during its exhibition.

Subsequently, Mr. Holmes and myself determined to try the use of the nicotine by subcutaneous injection (l); and accordingly, at 2.20 p.m., five minims of it, along with five of water, were injected under the skin of the left arm, which caused a slight blush of redness over the part where the injection was made. At 2.30 an attempt to swallow some porter created excessive spasm. At 3.15 the redness occasioned by the injection had nearly disappeared. At 3.30, attempts to swallow produced violent spasm of the muscles of the throat, lasting about five minutes. At 4 p.m., the arrival of the patient's mother caused much agitation and general spasm. At 4.30, Mr. Holmes injected ten minims (equal to half a grain of nicotine) into the tissues at the back of the neck. At 5.40, the same injection (ten drops) was repeated in the left arm, and was followed by some spasm. Subsequently an attempt was made to pass a flexible gum catheter through one of the nostrils, and down into the œsophagus, so as to give a nutritive injection, but most violent and long-continued spasms, with great lividity of face, and apparent suffocation, were, in consequence, produced, and the fluid was returned through the mouth. At 5.55, the abdomen was less hard and tense. At 6.30, pain was complained of at the præcordial region, and the administration of a beef-tea injection induced a most severe general spasm, the injection being at once returned. At 7.15, a quantity of the nicotine solution, equal to half a grain, was again injected under the skin. At 8.15, it was reported that since the last injection there had only been slight twitchings of the facial muscles, and the teeth could be separated a little more. Pulse 140 per minute. A few drops of water were swallowed with less spasm. At 8.40 the subcutaneous injection was repeated. At 10 p.m. the patient was reported to have been more restless. The pulse was 154 per minute. The skin somewhat perspiring. 11 p.m., the restlessness continued. The abdomen was much softer, the muscles being less tense and rigid, but she seemed weaker. Pain at the throat complained of. 11.15.—Twenty drops of the nicotine solution (equal to one grain) were injected into the subcutaneous tissues of the right arm. During the operation spasm came on, and gradually increased in intensity, and so affected the respiratory muscles that the face became livid, and breathing was altogether arrested; but after cold water had been dashed on the face, and vapour of ammonia applied to the nostrils, she gradually came round, the pulse being 164 per minute. 11.30.—The breathing was long drawn, and of a sighing character. Severe general spasm returned, lasting about four minutes. By slight pressure upon the lower jaw the mouth could be opened to the extent of half an inch. At 11.44, the breathing was sighing and irregular as to rhythm. Pulse 144, regular.

10th, 1 a.m.—Breathing the same. Pulse 150 per minute. There was a little moisture on the palms of the hands. The abdominal muscles were quite lax, but the general spasms were so continuous, though not violent, that it was thought advisable to repeat the injections of nicotine. The pupils were almost quite inactive under the influence of light. The breathing continued to have an irregular character until about 3.30 a.m., when it became very much impeded, and the spasms continued throughout, though slight as to intensity. She died at 4.40 a.m.

Post-mortem examination was not permitted.

Such are the painful records of this case, in which the use of nicotine proved unavailing. Looking to the history and details of the cases described by Dr. Haughton, I was at first sanguine as to our results in this recent one, especially as at one time some extenuation of the severity of the symptoms appeared to show itself. Possibly the local injury, considering the tender age and delicate constitution of the patient, may have been so extensive that its results would have been intractable under any mode of treatment.(m) Possibly, again, the nicotine may have been not so potent as I had thought,(n) or I may have been too sparing in its administration, being fearful, as I naturally was, of giving it in over-large quantities, knowing what evils have, in other hands, attended the use of tobacco when carelessly or improperly used.(o)

(i) Mr. Holmes applied a very small quantity of this solution to his tongue, and immediately became giddy and faint,—an effect which passed off in from two to three hours.

(k) Of the strength of half a grain to ten drops.

(l) In a letter from Professor Haughton, he informs me that he looks upon the mode of applying nicotine by subcutaneous injection as "a bad way." He had seen it used with a horse, as before alluded to, but "it appeared to act as a mild caustic, and not to be readily absorbed." He proceeds to say that he thinks the best way is to give it in doses of "one or two drops, in a teaspoonful of brandy, with tepid water, as an enema.

(m) In the treatment of tetanus, a curious note of Aretæus exists, in which he recommends, that, if the disease is thoroughly established, the Physician ought not to compromise himself by "meddling with the case." This principle is, of course, not here alluded to with a view to its recommendation.

(n) I understand that the most reliable preparations of this alkaloid are procured from Germany, which, indeed, appears to be the great market for most of the alkaloids.

(o) The strength of the enemata (chiefly resorted to as a mode of administering tobacco in tetanus) seems to have been about that adopted in the London Pharmacopœia, which directs the "enema tabaci," to be made by adding one drachm of the weed to a pint of fluid. Pereira observes, that he was in the habit of using twenty grains at a time in the

Of course, all these supposable causes of failure in the use of nicotine may equally be assumed in the case of other remedies which are so frequently resorted to, and with a like want of success; and are sufficiently probable to allow of hope (considering the partial success which has appeared to attend its use as related by Dr. Haughton and others, and also the results of the use of tobacco in tetanus), that the nicotine may yet prove a serviceable weapon in our hands against a disease, in connexion with which more than with any other, except, perhaps, hydrophobia, is the aphorism—"Vita brevis, ars longa, occasio præceps, experientia fallax, judicium difficile"—more justly applicable.

As regards the particulars—the individual symptoms which occurred in this case I will make no further observation, as such would be foreign to the scope of these remarks.(p)

Before closing, I cannot refrain from quoting a few lines from Mr. Simon's note before mentioned, in which he further touches on the treatment of tetanus. After referring, as above stated, to the successful treatment of tetanus by the tincture of the sesquichloride of iron, he proceeds to remark,—"Once I treated a case of acute tetanus with belladonna. I think the drug was amply tried, but I am not sure that the case (which, *perhaps*, was one of centric tetanus) was quite the fairest which could have been selected, *i.e.*, on the theory which would seem likeliest to justify the trial of belladonna." Again, Mr. Simon, alluding to the general treatment of tetanus, says:—"The other day, at Constantinople, Marko Pasha, the Sultan's doctor, told me that he had cured a large number of cases of tetanus—I believe nine out of eleven—by the use of opium, which he rubs in right and left, and gives in enemata, till profound sleep (? coma) results from it. His quantities were large; but, he said, none had died of opium, and all who slept recovered."

These remarks, though not directly relative to the immediate subject and purpose of this communication, are so interesting, that I could not desist from quoting them in this place.

CASE OF

EMPROSTHOTONOS (?) CURED BY THE USE OF ICE TO THE SPINE.

By JAMES EDMUNDS, M.D., etc.

The subject of this report is a married woman, 28 years of age, healthy and intelligent, altogether free from flightiness or hysteria, and of good family history. Her second child is nine months old, and at the breast.

On January 21, she retired to bed quite well, but on rising next morning at 7·30 her fingers were slightly benumbed, and between nine and ten o'clock while dressing the baby, her fingers suddenly "turned in," so that she was obliged to huddle the child up in her arms to save it from falling. This "turning in" of the hands increased rapidly, and caused a cramp-like pain in the arms; and her lower limbs from the knees downwards also became affected in a similar way, but less severely. In about half an hour the pain was so great that she was obliged to sway herself about to try to get ease, and she was so helpless that her husband first lifted her into an easy chair and then fetched a bed down stairs, and laid her upon it. The pain increased, and she could not help moaning and screaming, although her mind and her manner continued clear and rational.

Between 11 and 12 o'clock she was seen by Dr. S. C. Griffith, of London-wall. There was then extreme and rigid flexion of the hands and arms, and her head was so drawn forwards that the backs of the wrists were fixed close to her mouth; the tongue was coated; the pulse was not remarked. Some aperient medicine was ordered, of which she took one dose, and after which she was slightly sick.

At 1 p.m., Dr. Webber saw her in consultation with Dr. Griffith, and Dr. Webber noted her pulse as "slow and weak—about sixty." Sulphuric æther and anti-spasmodics were ordered at once, and a dose of morphia after a few hours in case the pain did not abate. She had intervals of comparative ease, but, nevertheless, continued to grow worse; and at 5 p.m., seven minims of "sedative solution of opium" were administered. After this, all her symptoms were aggravated; and during the evening she suffered so much that her screams could be heard across the road. Her neck became turgid, her respiration somewhat constrained, and she was becoming rapidly exhausted.

At 10 p.m., Dr. Griffith asked me to meet him in consultation; and I did so. At this time her condition was certainly most remarkable. I had seen plenty of screaming hysteria, and a few cases of opisthotonos; but I had never seen a case precisely like this one. She lay upon the bed on the floor on her left side, with her wrists in contact with her mouth, as has been described; her spine was bent forward, and her knees bent and drawn upward, but not to the extent of coming into actual contact with the abdomen. There was an expression of great anxiety and pain upon the face, and the lips were sufficiently retracted to show the teeth; but the expression was not exactly the risus sardonicus which I have seen in opisthotonos, and she could swallow by making a great effort to ignore the tearing, cramp-like pain which occupied her, and which forced from her a continual moaning scream. Her cry was nothing like the passionate scream of hysteria. She was quite rational, and she merely swayed herself about instinctively. Her forearms were hard and rigid, and the wrists were so fully flexed that her hands were forced open, and her legs were similarly affected, but in a much less degree. It was stated that a considerable quantity of pale urine had passed from her. The pulse could not be judged on account of the spasm of the neighbouring tendons. We had the patient held up on to her feet. She could not stand, and her legs were about as much cramped as in a bad case of cholera; but they were not in a state of rigid spasm like that of the forearms.

There was no appearance of hyperlactation; no evidence of albuminuria or uremic poisoning; no history of worms; no traumatic injury, and no clue whatever to any source of eccentric irritation excepting the single fact that her bowels had not acted for three days.

I had never seen a case of emprosthotonos, but this one could be referred to no other term. Certainly it was not a case of hysteria, and, moreover, it was manifest that, unless speedily relieved, she would die either from exhaustion or spasm of the respiratory muscles. There was evidently some exaltation of the reflex irritability of the spinal cord or some acute cause of nervous irritation, and the indications for treatment were, first, to clear out the bowels; second, to lessen the irritability of the cord, so as to do away with this frightful state of spasm.

The first object was effected by at once placing upon the tongue a purge, consisting of one drop of croton oil and five grains of calomel. An enema of turpentine and castor oil was also administered to free the lower bowel from flatus or fæculent accumulation, and the purge was to be repeated in three hours. How was the second object to be accomplished? The inhalation of chloroform, on the one hand, or the application of ice to the spine, on the other, appeared to be the only remedies adequate to the emergency, and as there were some objections to using chloroform, we determined to use the ice. This was accomplished effectually by her husband, who had two ox gullets alternately filled with ice, and kept it continuously applied to the whole length of the spine for seven hours, when all her severer symptoms had disappeared.

The screaming and moans were at once mitigated by the ice, and in about half an hour ceased entirely. In two hours her feet became flexible. About 8 a.m. on the 23rd, the spasms

form of infusion as a clyster in ileus. Abercrombie used fifteen grains, remarking that in people long accustomed to tobacco a somewhat larger dose might be required. Pereira goes on to say that he had "never met with any cases in which a scruple did not produce the full effect on the system that was desired." Cases are related in which half-drachm doses of tobacco, used as enemata, have produced death. Mr. Curling observes:—"At the commencement, a scruple of the tobacco-leaf, infused in eight ounces of water, will be enough for an injection, which must afterwards be increased in strength in proportion to its effects." In connection with the question of the comparative strengths of the tobacco used in the form of enemata, and the nicotina derived from the tobacco-leaf, it is just possible that, as the essential oil of tobacco, the concrete volatile oil (or, as it is termed, the nicotianin), a very essential element in producing some of the poisonous symptoms arising from the use of tobacco proper, is, of course, absent when the alkaloid, nicotina, is alone used,—it is possible, I suggest, that, in using the nicotine as a substitute for tobacco, we may be losing a very important agent of treatment. Individual and opposite effects are attributed severally to the *nicotina* and the *nicotianin*; but it is a question how far their separate effects can be or have been isolated, and whether we should not have more chance of success in treating tetanus or other diseases with nicotine if we combined the volatile oil with the alkaloid in our treatment. I see that, according to Schlœsing, one of the chemists who analysed nicotine, the proportion in 100 parts of American and French tobacco varied from 2·00 or less to 7·96, the tobacco which contained the smallest amount of the alkaloid being the Havana, and the highest being that from Lot.

(p) One of the most interesting symptoms which recently described cases have presented has been the elevation of temperature, observed by Wunderlich in a case of "spontaneous tetanus," and lately described by him.

had so far subsided that she could open her hands, but the numbness remained. She felt very sore in her muscles when turning in bed, especially in the forearms and legs, and in the back. Her tongue was cleaner, and the pulse had increased in volume, and had risen to 76. On the morning of the 24th the numbness entirely disappeared, and afterwards she had no return of cramp or spasms, but a little subacute bronchitis and hoarseness hung about her for ten or twelve days longer. She is now in her usual health.

In this case the patient herself ascribes the relief of her dreadful pain and cramps entirely to the use of the ice; and although it is difficult to distinguish between the mere *post hoc* and the *propter hoc*, yet I cannot but believe, if ever I saw a life saved by a therapeutical application, that this patient's life was saved by the use of the ice in this way to the spine; and the case strongly supports the theory propounded by Dr. Chapman, of Somerset-street.

If it be really a fact that, by the application of cold or heat to particular portions of the back, we can directly exalt or lessen the reflex activity of the grey matter of any given segment of the cord, or of the sympathetic ganglia which govern the blood-supply of distant parts, we shall have made a rare and philosophical hit in therapeutics, and, in the discriminating application of cold or heat to the nervous system, possess a remedy which may prove useful in almost all diseases. I had seen Dr. Chapman's brochure on the subject of this discovery, and also his paper in the *Medical Times and Gazette*, but thought the idea too pretty to be anything more than a plausible theory, until my own child being in great danger from an obstinate laryngismus, connected with dentition, I tried "the ice bag" to the cervico-dorsal portion of the spine, at the suggestion of Dr. Ramskill, and it has certainly done more to keep off the strangling attacks than anything else.

Dr. Ramskill has not only adopted this treatment largely, but speaks of it to me with the greatest confidence in the treatment even of epilepsy, and in his practice it seems to be the means of doing great good, and in many cases of keeping the fits almost entirely in abeyance.

For the application of the ice to chronic cases there is a great practical difficulty in respect to obtaining perfectly waterproof bags of the proper shape. Dr. Ramskill was kind enough to give me one for my own child, and since then I have communicated with Dr. Chapman himself, who most politely forwarded me, at prime cost, some bags prepared under his direction, and these answer very well.

I am indebted to Dr. Griffith for much of this report.

35, Finsbury-circus.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

CASES OF PULMONARY DISEASE PRODUCED BY MECHANICAL IRRITATION—CLINICAL REMARKS.

(Under the care of Dr. GREENHOW.)

Case 1 is one of many examples of pulmonary disease among chaff-cutters which have come under Dr. Greenhow's care during the last ten years. Sooner or later, nearly all the men in London who devote themselves exclusively to this employment become the subjects of pulmonary disease, which, beginning with bronchial irritation, terminates either in chronic bronchitis with its usual consequences, or in chronic pneumonia, passing into phthisis, or into iron-grey induration of the lung. Chaff-cutters' pulmonary disease does not prove fatal for many years—rarely, indeed, until the age of 50; but the fact that it leads to one of the above-mentioned terminations has been verified by Dr. Greenhow in several post-mortem examinations of patients who died while under his care, as Physician to the Western General Dispensary.

R. M., aged 47, chaff-cutter; admitted an out-patient of the Middlesex Hospital, April 24, 1863. Has been a chaff-cutter for ten years, and usually works eight hours a day. His business consists in going round to the different stables belonging to his customers to cut chaff for their horses, during which process the air he inhales is charged with dust given off by the hay and straw. Has long suffered from habitual cough and tightness of chest, and recently also from dyspnœa. Expectoration very scanty, thick, and yellow coloured; pulse quiet; skin cool; chest normally resonant in the upper and anterior regions, but slightly dull on percussion over the lower part of each lung posteriorly. Respiration sonorous in left apex; feeble in right. Three inches below the right clavicle the respiration is tubular, but free from moist sounds; four inches below the left clavicle there is coarse crepitation over a limited space; large mucous râle, almost amounting to gurgling, in base of left lung; fine crepitation in base of right. Urine free from albumen. ℞. Decoct. semegæ, ʒjss.; tinct. scillæ, ɱxv.; vin. ipecac., ɱv.; ammon. sesquicarb., gr. v.; tinct. camph. co., ɱxx. M., 6tis horis sum.

May 1.—Improved in some respects. ℞. Hst. acid nit. mur., ʒi.; vin. ipecac., ɱx.; tinct. camph. co., ɱxx., M. ter die. sum; capt. ol. balenae, ʒij. ter die.

22nd.—Having discontinued his work since first seen, he has improved very much. The moist sounds in the base of the left lung have given place to harsh, dry respiration; the crepitation below the left clavicle has disappeared, and the fine crepitation in the base of the right lung has become less extensive. The patient has also improved very much in appearance, and his cough and dyspnœa have decreased.

(Early in June, considering himself convalescent, he resumed his work, and was then lost sight of.)

Case 2 corresponds with the early and slighter stage of bronchial disease common among operatives who work in cotton-mills and other factories in which they are liable to inhale air charged with cotton flue, down, or similar light particles.

T. T., aged 22, machine tenter, admitted an out-patient June 12, 1863. Attends machines through which wool, cotton, and feathers are passed preparatory to their being made into mattresses and beds, and although the machines are covered, much dust and flue escapes into the air of the apartment. Has followed this employment for two years, during the whole of which time he has suffered occasionally from bronchial irritation, but more constantly during the last few months from dyspnœa and cough, attended by a yellow-coloured expectoration. The expectoration has recently been streaked with blood, and he now also complains of slight sore throat and huskiness of voice. Chest well formed, and normally resonant on percussion over its anterior aspect. Resonance clear on percussion over nipple, and for an inch below it. Slight dulness on percussion over bases of both lungs posteriorly. Respiration dry, and a little sibilant; free from moist sounds. Posteriorly, the respiratory murmur is louder on the left than on the right side. Rhonchus heard over a limited space between the middle of right scapula and the vertebral column, where also there is slight pain on percussion. Hst. acid nit. mur., ʒj.; vin. ipecac., ɱx.; tinct. hyoscyan, ɱxx. ter die. sum.

June 26.—Less cough and expectoration. Complains of pain between shoulders, where there is also considerable tenderness both on pressure and percussion. Rhonchus still heard between the scapulæ, but more on left than right side. Respiration over front of chest dry, prolonged, and wheezing. Pt. hst. capt. ol. balenæ, ʒj. ter die.

July 3.—Improving. Rhonchus much diminished, but respiration continues dry and harsh in the anterior part of lungs.

(He now went to the Convalescent Institution at Walton-on-Thames, and on his return reported himself quite well, but presented himself again after having resumed his work for several weeks.)

September 11.—Has much cough, dyspnœa, and wheezing, especially at night. Expectoration more copious than formerly, but now white and frothy. No hæmoptysis or pain of chest. Says that his present attack has come on gradually ever since he resumed work, the first symptoms being pain and oppression in the sternal region. Chest normally resonant on percussion. Respiration sibilant, but otherwise normal. ℞. Hst. acid. nit. mur., ʒj.; vin. ipecac., ɱx.; tinct. hyoscyam., ɱxx., ter die sum. ℞. Pil. conii. co., gr. v., om. noct. sum.

25th.—Has been less exposed to inhale dust since last report, his work having been changed, and is much better, the cough, dyspnœa, and expectoration having greatly diminished. Pt.

(He continued to mend, and was discharged quite well in November.)

Case 3 is an example of what has been called "grinders' asthma" or "grinders' rot." The disease commences with bronchial irritation, very soon, however, especially in dry grinders, passing into chronic pneumonia. Very frequently

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as in the present case, the accession of pneumonic disease is accelerated by attacks of pulmonary catarrh, to which all persons who suffer from bronchial irritation are peculiarly prone.

T. R., aged 38, tool-grinder, from Wolverhampton, admitted an out-patient May 29, 1863. Has been grinder on a wet-stone from boyhood, but is liable to inhale dust while hacking and razing, that is, preparing the stone. Had suffered during many years from slight dyspnœa; cough and expectoration supervened three years ago, since which time the dyspnœa has been greatly aggravated. Is of temperate habits. Skin cool; pulse quiet; chest somewhat flattened in front, but equally on both sides, no obvious dulness on percussion; respiration tubular throughout right lung; bronchial râles heard throughout both lungs; expectoration white, semi-transparent, and tenacious. ℞ hst. acid nit. mur. ʒj, vin. ipecac. ♏x tinct. laricis tinct. hyoseyam. āā ♏xx., M. ter die sum.

Early in June he had an attack of pleuro-pneumonia on the left side, for which he was admitted into the Hospital. His pulse rose to 100, and the expectoration became frothy, and contained on examination under the microscope small portions of pulmonary tissue.

July 4.—Patient is thinner, but not emaciated; skin cool; pulse 80. Frequent hacking cough with expectoration. Dulness on percussion in both infra-clavicular regions, but most observable on the right side. Respiration on right side tubular with slight crepitation in the infra-clavicular region, but air penetrates to the extreme apex of the lung; respiration on left side a little harsh. Pt. hst. acid nit. mur. etc., Capt. ol. balenæ ʒij. ter die.

11th.—Slight dulness on percussion, with diminished expansion in the upper part of both lungs, but right duller than left. Expiration prolonged in the upper lobe of both lungs. Loud snoring rhonchus in left infra-clavicular region; crepitation in right, but only now discernible during cough or forcible inspiration. Expectoration greatly diminished. Pt.

30th.—Dulness and flattening of chest as before. No moist sounds are now discernible, the crepitation in right infra-clavicular region having entirely disappeared. Still has dyspnœa and hacking cough, with scanty thick expectoration.

(Considering himself now convalescent, he returned to Wolverhampton to resume his work).

Cases 4, 5, and 6 illustrate the deleterious influence of a branch of industry which has not yet been noted as a cause of pulmonary disease. T. J., aged 21, pressman, admitted an out-patient September 11, 1863. Has worked for three years as pressman in a printing-office where bronze-printing is done. The process consists in dusting bronze-powder on the wet printed sheet as it leaves the press, by which means the air becomes charged with fine bronze-dust. Had never suffered from any affection of the chest until he went to work in this office, but soon after doing so he experienced dryness and soreness of throat. Next, his voice became hoarse, and this was soon followed by dyspnœa, cough, and expectoration, the latter sometimes streaked with blood. No emaciation; skin cool; pulse quiet. Chest well-formed, and resonant on both sides. Sound of expiration much prolonged in the apices of both lungs, but especially in the right. Slight rhonchus in the base of both lungs. ℞. Hst. acid. nit. mur., ʒij.; vin ipecac., ♏x.; tinct. hyoscyam., ♏xx. M. Ter die sum. Capt. ol. balenæ, ʒij. ter die.

October 30.—Cough and dyspnœa much diminished; voice still raucous; respiration dry and harsh; expiration prolonged; no moist sounds. Pt.

December 8.—Much improved in all respects. Cough and expectoration nearly gone. Has for several weeks discontinued his bronze-printing work, and is now employed at an ordinary printing press. Discontinued his attendance.

J. L., aged 31, paper stainer, admitted an out-patient August 7, 1863. His work consists chiefly in applying bronze powder to wall papers prepared to receive it, during which process much fine bronze dust is given off into the air he breathes. Says that all the men employed in this branch of manufacture are liable to suffer from cough. Has himself had almost constant cough for four or five years, attended by thick white expectoration, but until lately has had little dyspnœa. Voice hoarse, skin cool, pulse quiet. Chest well formed, expands properly in respiration, and is normally resonant on percussion. Respiration dry and sibilant in the upper part of both lungs. ℞ Hst. acid. nit. mur., ʒj.; vin. ipecac., ♏x.; tinct. hyoscyan., ♏xx. M. ter die sum.

August 21.—Improved, but expectoration still copious. Add to draught tinct. laricis, ♏xx.

October 2.—Presented himself again after an absence of five weeks. Dyspnœa, cough, and expectoration have increased again during the discontinuance of treatment. Skin cool; pulse 72. Respiration sibilant, expiration prolonged, no moist sounds. Pt. Capt. ol. balenæ, ʒij. ter die.

23rd.—In all respects better. Has scarcely any dyspnœa, and much less cough and expectoration. Pt.

December 15.—Has steadily improved, and is now quite free from dyspnœa, cough, and expectoration. (Has been removed into another department of work.)

C. L., aged 42, paper stainer, and brother of the above patient, admitted an out-patient October 2, 1863. Has worked more or less for thirty years at bronzing wall-papers, but owing to the increased demand for this description of paper, has for the last three years been employed exclusively at this branch of the trade. Has long been subject to cough, which, indeed, has been constant the last two years, arising, he considers, from inhaling the bronze dust evolved into the air. Is now suffering from dyspnœa, cough, and expectoration. The expectoration is thick, and yellow-coloured, but sometimes mixed or streaked with blood. Voice raucous, no emaciation, skin cool, pulse 84. Always has pain in the chest, generally on the left side, before the occurrence of hemoptysis. Left side of chest expands less freely in respiration than right, and is also slightly dull on percussion. Respiration in the apices of both lungs a little sibilant, but in other respects nearly normal. From three inches below the clavicle downwards on the left side, inspiration is loud and snoring, expiration almost noiseless. Inspiration also prolonged in the right lung. ℞. hist. acid. nit. mur., ʒi.; vin. ipecac., ♏x.; tinct. hyoscyam, ♏xx.; M. ter die sum.

October 30.—Dyspnœa, cough, and expectoration rather increased by the accession of catarrh. Pulse 90. Slight dulness on percussion over left infra-clavicular region, but air freely penetrates the apex of the left lung. Loud snoring, respiration heard both in front and behind throughout the left lung, but most intense in the scapular region. Inspiration prolonged throughout both lungs. Pt. hist. capt. ol.; balenæ, ʒij. ter die.

November 10.—Somewhat better. Pt.

December 10.—Much better in all respects. Pt.

January 4.—Improvement has continued steadily. Dyspnœa entirely gone. Cough and expectoration much diminished. Says that he can work twice as well as he could, and that he has for some time been using a coarser kind of bronze powder, less liable to become diffused through the air. Chest now expands equally on both sides. Slight dulness on percussion over the left infra-clavicular region remains. Respiration sibilant. Inspiration prolonged, expiration nearly inaudible.

Is still under observation.

GUY'S HOSPITAL.

FRACTURED RIBS—LACERATED WOUND OF THIGH—RUPTURED LIVER—PYÆMIA—DEATH.

(Under the care of Mr. POLAND.)

This case is interesting, as showing partial repair of injury to an organ so important as the liver. The patient died of pyæmia, probably set up by the external injuries. For the report of the case, we have to thank Mr. Whitfield Thurston, House-Surgeon.

W. B., aged 31, was admitted, under Mr. Poland's care, January 20. He had been knocked down by the handle of a windlass, which, whilst revolving, had struck him on different parts of the body, chest, abdomen, and thigh.

On admission, the eighth and ninth ribs were found to be fractured just beyond their angles on the right side, and there was a severe lacerated wound over the right tensor vaginæ femoris, laying bare the muscle, and lacerating its tendinous prolongation. He complained of pain in his abdomen; but there were no external marks of injury, and he was not much collapsed. The chest was strapped and bandaged, and the wound treated with warm-water dressing. He had spasmodic stricture of the urethra for twelve hours, which, however, yielded to treatment.

He went on favourably for some days; but then became much troubled with bronchitis, with profuse expectoration. He gradually got worse and worse, going through all the phases of an attack of pyæmia; and, notwithstanding all treatment, died on February 8, just nineteen days after admission.

Autopsy, by Dr. Wilks, Twenty-eight Hours after Death.—Fractured ends of ribs just penetrating costal pleura; right

lung irregularly consolidated, and adherent by recent lymph to the diaphragm. The left lung was in an equally diseased condition; and Dr. Wilks thought that the pneumonia was due to pyæmia. Both lungs contained consolidated masses, which, on section, showed hepatised tissue and purulent infiltration. Heart, kidneys, and spleen healthy. The descending aorta was greatly diseased, being much dilated, from about three inches above to three inches below the diaphragm. The walls were thickened and atheromatous. The peritoneum was of a black colour, from effused blood; either a small quantity only had been poured out, or else some had been absorbed again. There was a little blood in the omentum and pelvis; but, for the most part, the black colour was due to actual staining. Some coils of the intestine were quite black, and, when washed, showed the colour most on the mesenteric side. The diaphragm was adherent, by recent lymph, to the liver; but, when removed, the latter was seen to be extensively lacerated. At the upper part of its right lobe, there was a deep wound, now closed by lymph, but in the midst of the latter, some yellow biliary matter, showing escape of bile. Proceeding from this point, there were six or seven lacerations, extending in all directions around. They were all becoming closed by lymph. With the exception of the exudation over the principal rent, and which fixed the liver to the diaphragm, there was no general peritonitis.

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Medical Times and Gazette.

SATURDAY, MARCH 12.

THE ARMY AND THE MEDICAL PROFESSION.

Great Britain is certainly a warlike nation, however much she may fail to be considered a military one when contrasted with her neighbour on the other side of the Channel. Our history is in great part a succession of battles, and our present position has been won—as it has to be maintained—at the point of the sword. The extent of our colonial possessions necessitates the maintenance of a large military force, which rapidly absorbs the best blood and toughest muscle of the land to fill up the gaps caused by disease and death. Seeing that we are numerically such a weak power, and looking to the amount of work imposed upon us, the preservation of the health of our troops abroad becomes one of the clearest and gravest charges devolving on our Government. This object mightily concerns us all, as members of the British nation.

There is, however, another aspect of the same question, which comes before us as Medical men. Is there any other country in the world that has more reason to be proud of its military Surgeons than England? We can count—in common with other nations—a long list of devoted men who have served the nation well, and perished in the discharge of their duties as army Surgeons; and, what is not so common, we can point to the large amount of scientific truth which has been gained amid the din of arms, under the light and guidance of which life has been preserved, and the misery of the sick and wounded assuaged, through that series of struggles which seems to be the never-ending curse of nations.

The great Surgeon and Physiologist of our land—Hunter—carried away some sheaves of truth from the battle-field. Jackson laid the foundation on which the whole superstructure of army hygiene and sanitation rests; and he was followed by Pringle, Marshall, and others. The principles on which we treat gunshot wounds and injuries of vessels sprung out of Guthrie's experience in the Peninsular wars. These are things which remain for the benefit of the suffering humanity of to-day, and will remain for subsequent ages, and they present a finer spectacle, and mark a truer progress to the thoughtful and humane mind, than the world bending beneath the sway of the first Napoleon. Turn to the great campaigns which have for three years desolated America with blood. It is a melancholy spectacle in every way, and not the least so in this, that scarcely a new fact, and certainly not any great discovery, has arisen in Medical or Surgical science. Our Houses of Parliament will devote any number of nights, and the *Times* any amount of space, to the discussion of the claims of rival artillerists, or to the contending factions about the iron-clads; but how little, after all, will remain for the future historian who looks to the health and strength of a nation as the main elements for its material progress. But, it may be said, there never was a time when sanitary science occupied so much attention, or the laws affecting health and longevity were so anxiously and prominently discussed. Be it so! We have had books, speeches, reports, and commissions in abundance, and their conclusions have been trumpeted in our ears as if they were such new and powerful truths that men would immediately fall down and worship them, or that, once asserted, they would directly work the desired ends. "In all labour there is profit; but the talk of the lips tendeth only to penury." What earnest has the nation given of seeking something else than mere generalisations concerning health? What anxiety has been shown in the choice and supply of the instruments by which these conclusions are to be applied? It would almost seem as if the Government were desirous of testing the truth of Miss Nightingale's suggestion that great Hospitals are great evils, by working out in India the wider problem of whether Medical science and Medical men were not alike unnecessary.

No heed was given to the clamorous discontent in our Army Medical Department until its extreme state of unpopularity rendered a post in it the ambition of none. We regard it as a matter calling for inquiry, when an important branch of the public service is recruited, almost exclusively, from one part of the kingdom; but we regard it as a positive scandal that the authorities should sacrifice quality to quantity in the way they are doing, and endeavour to silence the claims and complaints of Army Surgeons by introducing amongst them an inferior class of men, to the manifest injury of our troops.

For how much of all this the Director-General is to be held responsible, no one can venture upon expressing an opinion, although it is impossible to prevent one being formed. There have been many changes introduced of late which would certainly seem to lie within the province and control of the Medical head, if he be possessed of any power at all. Although the journals have teemed with complaints, although the department was becoming more and more impaired by the loss arising from resignations, although it has been dying for want of fresh blood, no attempt has been made to remove the minor sources of discontent.

We have referred to the great dislike which every Medical officer, having any tinge of respect for his cloth or himself, has to the present mode of effecting the branding of soldiers. We have pointed out how, step by step, every particle of independence has been removed from the position of the Surgeon. We have alluded to the illogical and unjust way in which men are liable to be mulcted of their pay in the cases of recruiting, the allowance of extras, and the administration of drinks almost as simple and inexpensive in their nature as pure water; and we have heard that Medical officers have been threatened with the liability for any expenses incurred in sending a sick soldier before an Invaliding

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Board, should that soldier recover some months afterwards of his disease. We can quite understand that the Director-General has an extremely difficult task before him, and we can conceive of his finding evidence of carelessness, inattention to orders, etc., on the part of his subordinates, for the simple reason that the loss of independence and the want of confidence engender these very evils. It is quite possible that, in course of time, by a process of legislation adapted to the worst officers, you may so disgust the conscientious and diligent men that they will lose every particle of interest in their Profession and their work. Officers of different grades talk over these things. They come to regard Whitehall-yard as the camp of an enemy instead of the channel through which their views and feelings may be received and transmitted, at any rate with Professional sympathy, however much the exigencies of the public service may be the bar to their fulfilment. Some men there are who think that their interests would fare better if entrusted to the hands of a civilian and non-Professional man. It is a sufficient indication of the loss of confidence that such a view should have been mooted.

It is reported that the Government have at length instituted some inquiries. If the Committee, said to be sitting at the War Office, are really desirous of getting at the facts and feelings of the Profession, there would appear to be no lack of materials. We have not scrupled to express in these pages our own views. Two or three Medical officers, of different ranks, might be selected by members of the department serving in England for examination upon these subjects, and if they could not afford data to the Boards upon which to work, then their cause must be a bad one.

If the members of the Medical Department be fairly paid, treated as gentlemen of education, assigned such functions as rightly belong to them, and supported in the execution of their duties, we can assure the Government that there will be no lack of candidates; the Department, under happier auspices, will receive some of the best-educated men in Great Britain; and in a few years' time Government, officer, and soldier, will reap such advantages as will indubitably prove to them that the best material is the cheapest. How soon the whole Continent may be embroiled in war no man can tell. Never was the political horizon so lowering. The arrival of each day's telegrams is anticipated with anxiety, and it concerns us all that we should have every branch of our services in a condition of the highest efficiency. The Medical Profession, as a body, are every bit as patriotic and solicitous for the nation's welfare as any other class of men in the kingdom.

THE GOVERNMENT ANNUITIES BILL.

Our Parliamentary Report will explain the object and provisions of this bill. It seems to be admitted by all parties whose interest does not impel them to a denial, that the scheme proposed by the Government will be a great benefit to the classes for which it is designed, if it can be carried out as a financial success. This branch of the question does not fall within our province to discuss, but the measure, seen from a Professional point of view, is certain to affect some, if not all, of our readers. One of the objections which have been urged against the bill is, that in doing so large an amount of business for so small a sum in each case, it would be impossible to have an effective Medical inspection for each person. Mr. Gladstone replies that "the Government have the means of ascertaining the value of lives, either through the Medical Profession generally, as far as their certificates are concerned, or through those special Medical officers attached to the guardians of the poor who are themselves officers of the State." Now, the bill, a document of sixteen lines only, exclusive of the preamble, contains no reference to the practical working of the plan, and accordingly makes no provision for the remuneration of Medical inspectors. How, then, is this important desideratum to be supplied? By an order of the Commissioners of the National Debt, or by a supplementary statute? Again, are the certificates spoken of to be compulsory or optional? The suggestion that Poor-law Medical Officers are officers of the State has an ominous sound, and looks very much as if it were intended on the strength of this fact to foist upon these already overworked and insufficiently remunerated officials an additional, responsible, and onerous duty, without asking their consent, and without an adequate compensation. It may be, of course, intended that proper fees for Medical examination should be paid; the Profession, however, have no guarantee that such will be the case, and it is our duty to call their attention in time to the absence of any express provision. We have had occasion more than once in this Journal to remark on the want of common honesty shown by some inferior insurance offices to Medical referees, and it must not be permitted that the proposed measure, which is to have the effect of superseding the resort to such offices, while benefitting the artisan, should prove an iniquitous tax on the Medical Profession.

THE WEEK.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE VI.—FEBRUARY 13.

The form, arrangement, and mode of succession of the teeth constitutes an important subject of study in connexion with the structure and classification of the mammalia. The teeth of man are composed of the ordinary constituents, cementum, dentine, and enamel, are fixed in alveolar sockets, and consist of a temporary and permanent set, the latter replacing the former vertically. In both jaws the range of teeth form an arch, with the horizontal surface very nearly level, but the planes of the grinding surfaces of the upper molars look slightly outwards, the reverse being the case with the lower ones, so that the inner edge of the upper series and the outer edge of the lower series become worn first. The upper incisors bite in front of the lower ones, and the direction of the axis of the lower canine is slightly in advanoe of that of the upper. The line of the teeth is unbroken by any such intervals as usua lly occur in the lower animals.

The teeth are divided, for convenience of description, into incisors, canines, premolars, and molars. The incisors are defined—at least, as regards those of the upper series—as those teeth which are lodged in the premaxillary bone. The suture which limits this bone is soon obliterated in man, but traces of it can often be seen on the palatal surface. The tooth situated immediately behind the premaxillary suture is called the canine, but there is no absolute mode of distinction between it and the succeeding teeth, or premolars. The peculiar form and size is the general test adopted, but this fails in the examination of the dentition of some animals. The molars are distinguished from the canines and premolars by their mode of development; they do not succeed any other teeth vertically as these do.

The special characters of the human teeth are the following:—In the upper jaw the incisors are two on each side, single-fanged, adze-shaped, narrow from before backwards, and with broad, cutting edges; the outer are smaller than the middle pair. The canines are obtusely pointed, wedge-shaped in section, not larger than the inner incisors, with a stout, long fang, which causes a marked projection on the outer surface of the maxilla. The premolars, two on each side, are much like each other, have an elliptical transverse section, fang single or more or less divided, crown with two cusps, outer and inner, of about equal size, though the outer projects somewhat beyond the level of the other. The true molars are three in number; the two anterior of nearly equal size, and the posterior smaller. Their crowns are of quadrate form, with a peculiar pattern on the surface, composed of four projections or cusps at the corners, with a depression between them crossed diagonally by a ridge which connects the anterior internal with the posterior external cusp. This pattern is

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less definitely developed on the posterior molar. In the lower jaw the number of each class of tooth are the same as in the upper. The discrepancy of size in the incisors is not so great, and the inner one is the smaller of the two. The canine is not so large as in the upper jaw. The crowns of the premolars are more nearly circular, the inner cusp is considerably smaller than the outer, and generally connected with it by a transverse ridge. The three lower molars have somewhat larger crowns than the upper ones, and have a different pattern on their grinding surface, being divided by a conical groove into four cusps, with an additional small tubercle behind the posterior external cusp.

A representation of the number of the different kinds of teeth in both jaws by means of symbols constitutes what is called a "dental formula." The number and nature of the permanent teeth of man are thus shown by the convenient signs put forward by Professor Owen :—

$$i\,\frac{2-2}{2-2},\ c\,\frac{1-1}{1-1},\ p\,\frac{2-2}{2-2},\ m\,\frac{3-3}{3-3} = 32.$$

The formula for the deciduous teeth is—

$$di\,\frac{2-2}{2-2},\ dc\,\frac{1-1}{1-1},\ dm\,\frac{2-2}{2-2} = 20.$$

It will thus be seen that this set, or the "milk" teeth as they are sometimes called, differ considerably in number from those that replace them. They differ also in their characters. In the upper jaw the crown of the first deciduous molar is considerably smaller than that of the second, and is bicuspid. The posterior one has the pattern of a true molar, and is, therefore, more complex than the tooth which succeeds it. The same rule holds with the lower deciduous molars, the first more resembling a bicuspid, and the second a true quinquecuspid molar. As to the order of succession of the teeth in man, the principal point to be noted, in reference to zoology, is that the canine comes into place in each of the jaws before the second molar.

Professor Huxley next proceeded to give an account of the organs and processes of reproduction in man. In the male the penis is external, pendulous, and not fastened by a preputial sheath to the abdomen; the testes are suspended in a well-developed scrotum, and the canal of communication between the abdominal cavity and the tunica vaginalis is completely closed in the adult. The urethra is divisible into —1. An anterior portion contained in the corpus spongiosum, and into which the ducts of Cowper's glands open; 2. A middle or membranous portion; 3. A prostatic portion, which receives the ducts of the prostate gland, the vasa deferentia from the testes, the sacculus prostaticus, a small and apparently insignificant sac, varying much in dimensions, and, lastly, the cystic portion of the urethra, or proper urinary canal, extending from the neck of the bladder to the anterior part of the verumontanum.

It is not difficult to identify certain portions of the male reproductive apparatus as corresponding with some of the female organs: thus the testis and ovary represent each other in the different sexes; the scrotum answers to the labia majora; the glans, prepuce, and cavernous bodies of the penis to the similar parts of the clitoris; Cowper's glands to Bartholin's glands; and the prostatic sac to the vagina and uterus. The prostate is not at all represented in the female, as far as we know at present.

When this problem is prosecuted further by the aid of the study of development, it presents one of the most remarkable instances of unity of plan, with diversity of modification, in the whole animal kingdom. At one period of its existence, the vertebrate embryo appears, at all events structurally, absolutely sexless. The rectum and bladder and reproductive ducts terminate in a common chamber which opens externally. There are two ducts on each side; the inner one connected above with the Wolffian body, the primordial functional kidney. The outer, or Müllerian, duct is a blind canal, connected above with no gland or other organ. Behind the Wolffian body, the true kidney with its duct developes; in front of it arises another body, which ultimately becomes testis or ovary, as the case may be. In the male, the last-named body gradually acquires the tubular structure of the testis; and the Wolffian body, losing its function as a kidney, becomes converted into the epididymis and coni vasculosi, and its duct becomes the vas deferens. The Müllerian duct remains without function, and is in great part obliterated; its upper part becoming the inconstant vas aberrans, and the coalescence of the inferior extremities of the two forming the prostatic sacculus. In the female, on the other hand, it is in the Müllerian ducts that the greatest amount of development takes place: their upper extremities become the Fallopian tubes; their lower parts fused together form the uterus and vagina. The Wolffian body becomes the quite insignificant parovarium, the lower part being completely obliterated. These transitory conditions of the reproductive organs of the human fœtus are of great interest, as some of them remain more or less permanent among the lower Mammalia.

PARLIAMENTARY.

In the House of Commons, on Friday, March 4, Mr. Lowe, the Vice-President of the Committee of Council on Education, replied in the negative to a question by Mr. Baines "whether it was intended to introduce any measure to make the law relative to vaccination more effectual."

On the order for the second reading of the Penal Servitude Acts Amendment Bill, Mr. Adderly moved to defer the second reading for six months. The discussion which followed principally turned on the propriety of holding out a hope of the remission of punishment, which, it was urged, made sentences uncertain; and on the clauses contained in the Bill providing for the supervision of criminals liberated upon licence. Sir W. Miles thought that the provisions of the Bill could not be satisfactorily discussed, apart from the subjects of prison discipline, diet, hard labour, and prison rules. From various examples which he quoted, he argued that penal servitude as at present carried out had no terrors.

Sir George Grey urged that most of the objections to the bill might be considered in committee. With regard to the diet of prisoners, he said that a committee had been appointed who were carefully investigating the dietaries in prisons. The amendment was finally withdrawn, and the bill read a second time.

In the House of Lords, on Monday, March 7, the Marquis of Westmeath introduced a bill to increase the penalty in certain cases for the crime of rape. He proposed that where more than one person was engaged in the commission of the offence, the punishment of whipping should be imposed. The bill was read a first time.

In the House of Commons, the most important event of the evening was Mr. Gladstone's speech on the Government Annuities Bill. The object of this bill is to offer Government security to those of the poorer classes of the community who may wish to invest their annual savings in the purchase of a Deferred Annuity for the support of their old age, or in a Life Assurance up to the sum of £100.

The Chancellor of the Exchequer explained the motives which had induced the Government to propose the plan contained in this bill. They had felt it to be their duty, he said, to endeavour to make the provision of law for the protection of small life insurers operative and real. He admitted that a proposal of the Government to undertake any species of business called for the jealous scrutiny of the House, and that cause for it must be shown. The questions were—first, whether there was an evil to be redressed; and, secondly, whether the means proposed for redressing the evil were practicable, and not open to objection. The manner and principle of the remedy proposed were precisely analogous to those of the Post-office Savings banks. He took it for granted, he said, that a great and serious evil existed; and with regard to the remedy, he considered, first, whether the plan was safe; and, secondly, whether it involved injustice to trade. Having demonstrated the safety of the plan, and that it was not difficult in operation, he examined the next question, whether it was unjust to those engaged in the same business,—namely, the principal insurance societies, the minor insurance societies, and friendly societies,—and he proceeded to show from detailed statements that the plan of the Government was a just pro-

posal as respected trenching on the domain of either of those societies. In competition with those minor societies, that dealt in what was termed industrial business, the Government, he said, would possess no other advantage than that of offering a perfect security and certain facilities, as for dropping policies. Mr. Gladstone gave a description, from public documents, of the accounts, operations, and condition of some of the minor insurance societies, existing and extinct; of the vast number of friendly societies, and the number of these that were continually failing, and of the losses of policy-holders, presenting an aggregation of evils that called loudly for a remedy. The pressure of these evils fell, he observed, chiefly upon the labouring classes, and Parliament, by its legislation for friendly societies, he considered to be responsible for this state of things.

The point in Mr. Gladstone's very able statement which most nearly concerns the Medical Profession was his answer to the objection founded on the danger of loss from insuring bad lives. He argued :—

"If the assurances are not to exceed £100, they will—with exceptions so few that they may be put out of sight—be those exclusively of the working classes. We exclude children and young persons under sixteen altogether—(hear, hear)—because such lives are of a character admitting of a good deal of uncertainty and fraud, and form a department of business which we do not think it would be wise or safe to undertake. Practically, then, those who insure their lives will be fathers of families, labouring men. Is it very difficult to ascertain the value of such lives? I allege, without fear of contradiction, that it is not. In the first place, we have the means of doing it either through the Medical Profession generally, as far as their certificates are concerned, or through those special Medical officers attached to the guardians of the poor, who are themselves officers of the State. As far, therefore, as Medical means go, we have all that can be desired; but what I venture to say, and say boldly, is this, that although the ascertainment of the value of life in the higher classes of the community is a matter of great subtlety and difficulty, requiring, first of all, the application of the highest Medical skill, and afterwards a jealous scrutiny besides, yet the value of life in the case of a labouring man is a matter of comparatively simple calculation. You have to know three things, each of them easily ascertainable. The first is his age—a matter of fact, and beyond opinion; the second is his employment, also a matter of fact, not of opinion; and the third, is he a sober man, not a drunkard? Of course, I don't say that in every individual case you will know the value of the life, but that you will generally know it quite accurately enough to work your tables. Some time ago I had an opportunity of discussing this point with an eminent member of the Medical Profession in London, himself the consulting Medical officer of two assurance offices. I asked him whether that was the case. He said it was, and he used these words :—'In the case of industrial assurances we scarcely look at our patients,' thus distinctly affirming the proposition that in regard to the labouring classes the employment and the general character, as palpably known to all the world, are in the long run a sufficient and satisfactory test of the value of the lives. Then, as to personation, we have some experience already, because we have been working our system of savings-banks for some time, where there is plenty of temptation to personate, and yet not a single instance of it has occurred. My belief is that, comparing the case of a Government department with that of the assurance offices of a large description,—I do not speak of the friendly societies, which are strictly local in their character,—the means we have for ascertaining identity are very superior to those possessed by the assurance offices, because a man who insures with the Government has, in fact, every means of getting his identity tested. The Government knows, with regard to all its business, that it has natural allies in all those persons best acquainted with the condition of the people throughout the country. Take the clergy, the dissenting ministry, the magistrates, the Poor-law guardians, the registrars—I don't speak of the postmasters, on whom it would not be well to depend, for we want them generally for the performance of routine duty only; but with the aid of the different classes of men whom I have mentioned, and last, but not least, with that of the employers of labour, I say it is perfectly easy for the Government to defend themselves against the risks of fraud through personation. Well, it has been carefully considered in what way the system could be worked. I admit that here we stand in a different position from that in which we are placed under the existing law, where the deferred annuity that is required to be purchased is itself a security. But, undoubtedly, all the inquiry we can make convinces me, in the first place, that the ascertainment of the value of the lives of labouring men is, as a general rule, and with very rare exceptions, a matter easy and simple; and that, with respect to frauds through personation, those frauds are not found to present any vital difficulty in the way of the societies which now exist, whereas, in my opinion, a Government department would cope with them much more easily. As to taking bad lives, consider the case of the existing societies, which have agencies all over the country, and which induce their agents to draw lives into their net by promising them, independently of their other fees, 25 per cent. upon the value of the premiums to be received. It is a matter of fact that there are now societies with their hundreds of thousands of members existing under your auspices, countenanced by you, authorised by you, subsidised by you, as I have shown, who are drawing lives into assurance in connexion with themselves by giving to their agents, irrespective of certain other emoluments, no less than 25 per cent. of the whole premiums to be paid, which is a larger sum than ought to cover almost twice the expenditure of a sound and well-constituted society. And what is the effect of that upon fraud and personation? I say to an agent—'Go you round a certain district, town, or village, and you shall have 25 per cent. of all the premiums of the men you can bring into assuring;' and then I am to expect, forsooth, from that man that he is to be very scrupulous and particular in the selection of good lives. So much for the mere safety of these operations."

In the debate which followed, Lord Stanley said that he thought Mr. Gladstone had disposed of the question of the value of the lives in a summary manner. He seemed to admit that it would not be possible to have a proper Medical inspection for each person. The line of argument which Mr. Gladstone adopted was that, after all, this inspection was not very material; because, in the case of industrial assurance, given a man's age and employment, and his habits as to temperance or intemperance, we had everything that was material to know.

The Chancellor of the Exchequer disclaimed the intention of neglecting Medical examinations. On the contrary, he said that he had referred to the advantages which might be derived from the Government connexion with certain members of the Medical Profession.

Lord Stanley: The Medical men of the Poor-law Unions. That is a question which may be better dealt with in committee; but when you consider the amount of labour which is thrown on the Medical officers already, and the vast extent of some unions, I am afraid you will find it practically impossible to have any very effective Medical examination by them, putting aside the expense which, in dealing with these small amounts, would be considerable. But as to the principle that the age, the employment, and the habits of a man's life are almost the only material points to be attended to, I hear that stated for the first time. I am not prepared to contradict it. It is not a point on which the members of this House have much knowledge. All I say is, that it is a very broad assertion, a very sweeping assertion, a very novel assertion. We have it at present only on the evidence of the single witness quoted by the right hon. gentleman. I think we ought to go a great deal more deeply and carefully into the matter before taking that which is no doubt believed by the right hon. gentleman for granted, because the question of the healthiness or unhealthiness of lives is of the most vital importance.

After a long discussion on the propriety of Government interference, and the practicability of Mr. Gladstone's scheme, the debate was adjourned.

We cordially agree in the objects of Mr. Gladstone's measure, and hope that the industrious poor may have so great a benefit conferred on them. With regard to the question of Medical examinations, the idea of dispensing with them is utterly paradoxical. We are glad to see that Mr. Gladstone disclaims it. His statement that the principal data necessary in deciding on the fitness of a life for insurance are age, employment, and sobriety, would probably prove true, if the major part of the population were assurers in the Government office. But in the case of a limited number of assurers, such a statement is refuted by the common experience and practice of all insurance offices who think it necessary to employ a

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Medical referee. The amount for which lives are to be insured can make no difference in the principle on which they are selected. We only demand, if the duty of examination is to devolve on the Union Medical officers, that they shall receive a fair remuneration for their labour. This point in the measure we have already discussed; but we would especially call our readers' attention to a letter in another part of our Journal, asking for the opinion of Poor-law Medical officers on the whole subject, which should be thoroughly canvassed before the bill goes into committee.

On Wednesday, March 9, Mr. Ewart's Bill, rendering permissive the Metrical System of Weights and Measures, was read a second time. The second reading was opposed by Mr. Walters, who divided the House on the subject, when 90 voted in favour of the second reading and 52 against it. The objections urged against the Bill were that, being permissive and not compulsory, the introduction of two systems of weights and measures would throw the whole trade and commerce of the kingdom into confusion; that it would introduce a foreign system of nomenclature; and that, if decimalisation were applied to weights and measures, it ought also to be applied to coinage, and there was no probability of Parliament assenting to that. The Bill introduces a third unit, the metre—the ten-millionth part of the arc from the Equator to the Pole—into our system of weights and measures, in addition to the two already existing—the yard for lineal measurement, the avoirdupois pound for weight.

Mr. H. A. Bruce moved the second reading of the Cattle Diseases Prevention Bill. After showing, from the returns of cattle insurance offices, the large amount of mortality which had prevailed in the United Kingdom within the last few years—a mortality of cattle, sheep, and pigs representing an annual value of £6,120,000—he proceeded to show that whether the most fatal disease—pleuro-pneumonia—were contagious or only epidemic, it appeared to be transmitted from foreign countries, and propagated through the medium of infected ships, trucks, &c. He also mentioned the mortality arising from other diseases,—the "foot and mouth disease," the "scab" in sheep, and "measles" in pigs. He then notices the effect of diseased meat on the health of the population, and quoted the testimony of Professor Gamgee, Mr. Simon, Professor Maclagan, Dr. Alfred Taylor, and Dr. Letheby, as to injurious consequences occasionally produced by eating diseased meat. Professors Maclagan and Taylor referred to having frequently met with cases in which symptoms of irritant poisoning had followed the eating of meat in which no poison could be chemically detected. Dr. Taylor mentioned two cases of death, one from eating diseased mutton—the sheep having had the staggers—and one from German sausage. Dr. Letheby's testimony referred to the Kingsland epidemic, in which, of sixty-six persons who had eaten certain sausages, sixty-four were taken ill, and one died. Mr. Bruce observed that if diseased meat were not poisonous, there could hardly be a doubt that it was innutritious, and the evil arising from its sale fell principally on the poor. He then proceeded to give an account of the previous legislation on the subject, and stated that the object of the present bill was to consolidate and extend the existing law:—

"The bill was divided into six parts. Part 1 made it an offence—first, to turn out in a common field any diseased cattle; second, to expose for sale any diseased cattle; thirdly, or to place them in a field insufficiently fenced, or take them along a highway without due precaution; penalty for such offences not to exceed £20. It was also provided that if the owner of a diseased animal knowingly sell it to a purchaser, without notice of disease, he shall, in addition to the penalty imposed by the Act, be deemed guilty of fraud in making the sale, and be liable for damages to the extent of the injury inflicted upon the purchaser. The second part repeated and somewhat enlarged the 11th and 12th Victoria, cap. 107, enabling her Majesty to declare certain districts infected, and to make regulations with respect to the removal and mode of disposing of cattle in such districts. The third part was new, requiring every railway or canal company to cleanse the trucks and boats in which they carried cattle—(hear, hear)—and to water the cattle once in twelve hours. (Hear, hear.) He believed there would be no insuperable difficulty in this, and there could be no doubt of the great cruelty and mischief of the existing practice in that respect. (Hear.) The fourth part was partly new. The 11th and 12th Victoria authorised the appointment of inspectors with powers to seize any sheep or lambs exposed for sale at any market or fair, and to destroy the pens, litter, &c. This Act extended the authority of the inspector to all cattle at fairs or markets which he might examine and exclude. This portion of the bill also defined the local authorities, and provided for their payment. The fifth part made all penalties recoverable in a summary manner. The sixth repealed existing Acts, and declared all Orders in Council now in force not to be affected."—After a short discussion, the bill was read a second time, and ordered to be referred to a Select Committee.

HOW SCOTTISH DOCTORS LIVE.

THE case of *Skene* v. *Stewart* gives a touching picture of the hardships endured by Scottish Medical men, whilst it arouses our indignation at the meanness of the petty *Lairds* who seek their services and deny them due remuneration. The case was referred from the Stewards' Court at Kirkcudbright to Dr. Macculloch, of Dumfries, from whose able and pungent report, published in the *Galloway Advertiser and Wigtownshire Free Press* of February 18, we extract the following particulars:—

"A country Surgeon, about twenty miles from Dumfries, attended for six months the family of a country *gentleman* (?—ED.) residing about a mile from the Surgeon's house, and had attended the same family for some time. After the Surgeon tendered his account, which particularises each visit and each medicine supplied from the Surgeon's own laboratory, payment was refused on the grounds that the 'account is exorbitant,' and that 'the medicine as charged is a most ridiculous amount.' The attendance began on December 19, 1862, and ended on June 22, 1863, both inclusive. During that time the Surgeon made sixty-eight visits to members of the family who were ill. For seventeen days during that time he made one visit per day. During twenty-six days he made two visits per day, and during eight days he made three visits per day; seven of the visits were in consultation with a senior Practitioner. During one of the visits he vaccinated several members of the family, during another he was detained all night, and six of the remaining visits were made after 10 p.m. and before 6 a.m. Every visit is charged 5s., with the exception of one visit, during which he was detained all night—that one is charged 7s. 6d. That is to say, the visit when the family was vaccinated and those betwixt 10 p.m. and 6 a.m. are charged neither more nor less than those during the day—viz., 5s. for each visit. During the said attendance the Surgeon dispensed to the gentleman's family forty-six powders, for which he charges 2d. each, twelve pills, for which he charges 4d., three plaisters for which he charges 6d. each, and five bottles, called mixtures, for which he charges respectively 4½d., 5d., and 8d. per ounce. One of these bottles is put down as a four ounce mixture, three of them two ounces, and one of them one ounce mixture. The four ounce one is charged 4½d. per ounce, the two ounce ones 5d. per ounce, and the one ounce one 8d. per ounce. The particular drugs contained in the powder, pills, and mixtures are not specified. The whole account amounts to £25 1s. 6d."

We cannot see how a Professional man can justify himself for charging so little. To remain all night for less than a guinea; to vaccinate several members of a family for nothing; to attend consultations and pay visits at night without extra fee, is simply to rob himself and establish a precedent for robbing his brethren. And it is of no use to commit such a mean act of self-sacrifice. It is like the old attempt to bargain with the devil. You may give him all your earthly goods and leave yourself stark naked, and then he will insist on having your skin. So the Laird, when he received poor Dr. Skene's miserable charges, emboldened to attack a man who, as no doubt he felt, had made charges scarcely consistent with self-respect, replies thus:—

"Your account is most exorbitant. I am advised to make you an offer of 2s. 6d. each visit, allowing a double fee for all calls made after 10 p.m. Upon these terms I will settle your account at once, and also pay the medicine as charged, although I consider it a most ridiculous amount. I may remark that I can prove that you have charged a day's visit that you did not make; this being the case, it is quite likely that you may have made other similar charges. I may also remark that I

do not think there is another Medical man in Scotland would make seven visits in two days and charge for them all."

Dr. Skene applied to the Stewards' Court; and the case was referred to Dr. Macculloch, whose "report" gives a most masterly solution of several questions which are often raised, such as—"Ought Medical men to have one scale of charges, or many?" "Ought a Practitioner to charge for every visit; and ought he to be paid for medicines?"

"It is well known (says Dr. Macculloch) that Medical men, especially in rural districts, must, of necessity, attend upon all classes of the people, high and low, rich and poor. It must be obvious, therefore, that they must adopt their charges for professional services to the status and means of their patients, and often to the different means of persons of the same status. This necessarily implies a maximum and minimum charge for the same service, according to the means and status of their employers, providing such charges are, in the words of his Lordship, the learned Steward-Substitute, 'fair and reasonable.' That there are fixed fees in several branches of the law I do not consider decisive of the point. As life and health are infinitely more important than property, as disease is much more rife than legal disputes, and as these fixed scales of legal fees, *de facto*, prevent persons of small means from going to law, even in many cases of great hardship, the analogy does not hold good. No doubt if a man is a pauper he can prosecute a law plea in a Peter Peebles *v.* Plainstanes sort of way, but if he cannot constitute himself a pauper the man of small means cannot go to law. Not so in medicine; the doctor is morally and socially constrained to give his services to all, and in far more cases than the public conceive gets no fee at all. What then? The doctor must live, must keep up a certain status, and, like other men, endeavour to save a competency for old age and for his family, and for this the rich and upper classes must pay, otherwise they would soon have either no Medical advisers or those who would be worse than none."

"As to the defender's objection and reproach in regard to seven visits being charged in two days (continues Dr. Macculloch), it could only have been relevant if one or more of these visits were unnecessary or unexpected, which, for the above reasons, is improbable. Medical visits, *qua* employment and remuneration, are a mere matter of business, and have no claim to be considered as matters of feeling and generosity, excepting in regard to the actual or comparative poverty of the employer when such is the case. So far from numerous visits in one day being charged less, or not at all, they ought, in justice, to be charged more and more after the first and second—*i.e.*, assuming that they are absolutely necessary in a dangerous case, or that they are made under the instructions, direct or implied, of the employers, because such frequent calls upon his time in any one case are not only irksome, but interfere with and disarrange the Practitioner's duties to his other patients, often deprive him of other cases and families, and but too often cause him to travel and visit at untimeous hours. The same also with regard to consultations; Medical men are constantly liable to sudden calls to cases of emergency: the time for consultations must be fixed some time beforehand, and it often, therefore, becomes either a loss or a great inconvenience. Consultations also, in general, consume more time than an ordinary visit.

"As to charges for medicines, a druggist either receives ready money over the counter, or trusts only those whom he can safely credit for the medicines he dispenses. The Medical Practitioner, however, who dispenses medicines to his patients (and those in rural districts are almost necessitated so to do), must give these medicines to a great many of those patients who he knows do not or cannot pay him for either medicine or attendance. The druggist can, therefore, afford to dispose of his drugs at a cheaper rate than the dispensing Medical Practitioner, who, were he not to charge higher than the druggist, must of necessity lose money by dispensing drugs. The prices charged by the pursuer, therefore, for drugs, are, in my opinion, fair and reasonable; and how the defender can declare that about 14s. is 'a ridiculous amount' for the drugs prescribed and supplied during an attendance of about six months on a family, one of whom is admitted to have been long 'dangerously ill,' is to me incomprehensible, excepting upon the supposition that the defender has some secret grounds for refusing payment. I have assumed that the defender is a country gentleman, living as such, and possessing sufficient means for so doing; and yet, although I am not informed by the record, or otherwise, it is possible that he may be in straitened circumstances. If so, had he said or hinted to the pursuer that the sum total was more than he could afford, as a matter of Professional honour and custom, it would have been morally incumbent upon the pursuer to have modified his account accordingly."

"On Dr. Macculloch's report and production being lodged (says the *Galway Advertiser*), decree was pronounced in the pursuer's favour for the balance of his account, interest, and expenses of process, the Steward-Substitute remarking with reference to the duty performed by Dr. Macculloch, that it was performed with much anxiety and care."

We venture to add that we thank Dr. Macculloch for having shown the true position of our Profession so fully and so ably. We wish that his observations were collected into a little pamphlet, and that every Medical man in the kingdom would enclose one to each patient to whom he sends his next account for charges and fees.

CHARGE OF MANSLAUGHTER AGAINST A HERB DOCTOR.

The following are the particulars of a case tried at Durham before Mr. Justice Willes on March 2. It illustrates the repugnance shown by juries to convict illegal Practitioners even on what seems to be the plainest evidence. If a charge of malpraxis be brought against a regular Practitioner, we seldom find that he receives any undue consideration at the hands of the Court; but it would seem that juries hold the ignorance of the quack to be what the French call an "extenuating circumstance," and make it a ground of acquittal. In this case, judging from the published reports, the verdict seems to have been clearly contrary to the evidence and to the judge's direction:—

The prisoner, a man named Joseph Levy Markuss, kept a shop in Sunderland, where he passed as a herb doctor, or "herbalist." Being acquainted with the deceased, Jane Sumby, who also kept a shop in Sunderland, he chanced to call on her on Sunday, the 6th of September last, and found her labouring under the effects of a cold from standing in the market. She complained to him of pains in her back, and appeared to have been ailing for some days. The prisoner volunteered to prescribe for her, and sent her daughter for 6d. worth of pale brandy in a 6oz. bottle. Into this he put about an ounce of meadow saffron seeds, known medically as colchicum seeds, first bruising them, and directing the deceased's daughter to place the bottle before the fire for two hours, and then shake it up and give her mother a tablespoonful. The daughter did as directed, giving her mother a tablespoonful about 2 o'clock on Monday, the 7th. The deceased became ill and sick shortly after, and, after taking some tea at 4 o'clock, vomited violently, and continued at short intervals vomiting and retching till she died exhausted at 10 o'clock on Wednesday morning. Dr. Nattrass was called in on Monday night, and prescribed for her two opium pills of a grain each, and next day gave her small doses of prussic acid and soda to allay irritation, and directed her to have soda water and milk, weak brandy and water, and lemon juice and water to allay her thirst, and arrowroot and weak brandy and milk as sustenance, but her stomach was so irritable it would retain nothing, and on Tuesday he ordered her an injection to sustain vitality. While attended by her daughter and neighbours, it appeared that she had several times taken small quantities of brandy neat to try and stop her sickness, and had also taken some "nerve powder," which a neighbour recommended. This powder, when analysed, was found to consist of valerian, skunk-cabbage, gentian, ginger, and some other ingredients, harmless in themselves, and which would act as a stomachic in ordinary cases. A post-mortem examination was directed by the coroner, and the deceased's internal organs were found to be healthy, with the exception of the heart, which showed slight symptoms of fatty degeneration, and the stomach, the internal coat of which was of a violet colour from intense inflammation. She had died from gastritis, or inflammation of the stomach, which the Medical men who attended her attributed to the overdose of colchicum seeds she had taken by direction of the prisoner. The bottle in which was this mixture was delivered up for analysis to Mr. Pattenson, the analytical chemist, of Newcastle, who found it to be brandy and colchicum seeds. Two grains of colchicum seeds, in the form of tincture, was a dose. A teaspoonful of the mixture would contain 18 grains, and was a fatal dose,

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and a tablespoonful contained 80 grains. This was a highly poisonous and fatal dose, the drug being a narcotic irritant poison. In the judgment of the Medical men this was the cause of death. The counsel for the prosecution, in his opening, drew attention to the law, which made no distinction between regular Practitioners and quacks, both being responsible for culpable and gross negligence, and liable to be indicted for manslaughter if by culpable and gross ignorance or negligence they were the cause of the death of a patient, and submitted that it was some evidence of culpable negligence if a man, being an irregular Practitioner, and ignorant of the qualities of a dangerous drug, yet undertook to prescribe it in quantities dangerous to life, and if such an act led to fatal results he was amenable to the charge of manslaughter.

The defence urged was that when analysed the infusion, or tincture of colchicum, had become much stronger than when administered to the deceased, and that it was the continued doses of brandy, and the nerve powder, acting on a stomach attacked by gastritis from cold, which had increased the disease by increasing the inflammation, and had thus caused death.

His Lordship, having summed up the evidence, directed the jury as to the law. Every person who dealt with the health of others was dealing with their lives, and every person who so dealt was bound to use reasonable care, and not to be grossly negligent. Gross negligence might be of two kinds, and in one sense,—where a man, for instance, went hunting and neglected his patient, who died in consequence. Another sort of gross negligence consisted in rashness, where a person was not sufficiently skilled in dealing with dangerous medicines, which should be carefully used, of the properties of which he was ignorant, or how to administer a proper dose. A person who with ignorant rashness, and without skill in his profession, used such a dangerous medicine acted with gross negligence. It was not, however, every slip that a man might make that rendered him liable to a criminal investigation. It must be a substantial thing. If a man knew that he was using medicines beyond his knowledge, and was meddling with things above his reach, that was culpable rashness. Negligence might consist in using medicines in the use of which care was required, and of the properties of which the person using it was ignorant. A person who so took a leap in the dark in the administration of medicines was guilty of gross negligence. If a man were wounded and another applied to his wound sulphuric acid or something which was of a dangerous nature and ought not to be applied, and which led to fatal results, then the person who applied this remedy would be answerable, and not the person who inflicted the wound, because a new cause had supervened. But if the person who dressed the wound applied a proper remedy, then, if a fatal result ensued, he who inflicted the wound remained liable.

The jury retired to consider their verdict, and, after being absent for some time, returned with a verdict of "Not Guilty."

FROM ABROAD.—HOW TO PREPARE A NEW EDITION—THE PARIS ASSURANCE CASE—REPREHENSIBLE HUMANITY—VIVISECTION IN PARIS—NERVOUS SYSTEM OF PULMONATED GASTEROPODS.

The following seems a somewhat ingenious mode adopted by Dr. Gaetano Strambio, of Milan, for securing the materials for a new edition without too much trouble on his own part:—"A Circular to the Cultivators of Anatomical Studies. Being about shortly to prepare a second edition of my '*Trattato Elementare di Anatomia Descrittiva e di Preparazioni Anatomiche*,' in order that I may render it less unworthy of the favour which it has met with, I venture to request that all the cultivators of anatomical studies, whether in Italy or abroad, will carefully bring under my notice a *succinct* account of the results of their more recent labours and discoveries. I shall also feel singularly grateful to those who will point out to me faults in my first edition, and favour me with their advice concerning the second, as also to those journals which reproduce these requests.—GAETANO STRAMBIO."

The Paris assurance case has advanced another stage, and Dr. C. de L., the homœopathist, charged with the poisoning of his mother-in-law, and of a young woman whose life he had insured for 500,000 francs, will be put on his trial in April. M. de Gouet, "*juge d'instruction*," has caused various experiments to be made in relation to this case. Digitaline, it seems, has been detected in the dejections and stomach; and one of the experiments consisted in poisoning a pigeon by the scrapings of the floor upon which some of these dejections had fallen. Other experiments have been performed upon frogs. The heart of one of these reptiles was carefully laid bare, the frog living a considerable time without any sensible disturbance being produced in its vital functions. Upon the heart of another frog similarly exposed a drop of digitaline was allowed to fall, with the effect of diminishing the movements of the organ, its pulsation becoming slower, and the animal rapidly dying. To the heart of a third frog a minute portion of the dejections was applied, and the same results were observed as in the second frog. The pulsations became almost imperceptible, and death speedily followed. The two latter frogs had already died while the first continued alive, no notable disturbance having been produced in the movements and pulsations of the heart.

We read this in the Paris Medical journals:—

"A young woman was brought into the Beaujon Hospital in the last stage of croup, asphyxia being far advanced, and death imminent. M. Morel-Lavallée immediately practised tracheotomy, and the canula had been inserted, when, after several paroxysms of coughing, respiration became completely suspended. All other means of re-establishing it having been tried in vain, M. Morel-Lavallée suggested the employment of insufflation by means of the canula, and M. Magnié, a pupil, though well aware of the danger to which he exposed himself, at once applied his mouth to the canula, and having made insufflation, quitted the canula, his mouth covered with blood, and mucosities issuing from the air-passages. M. Moutard-Martin at once employed himself in washing the face of his courageous pupil, and made him gargle himself; but while he was so engaged, three other of his pupils, MM. Bessey, Delfau, and Blumenthal, also devoted themselves to this task, together with M. Magnié, who, in turn, renewed the attempt. Finally, Dr. Raynaud, distinguished by his success at the concours, persevered with the same courage, which, however, proved fruitless. Strange, indeed, although consoling, was it to witness these young men, with blood-bespattered mouth and face, thus confronting, with an eagerness that does not wait to calculate, the formidable danger which may arise from insufflation performed under such conditions. Informed of this incident, the *Directeur de l' Administration de l' Assistance Publique* repaired to the Beaujon in order to thank the students for their devotion. We are informed that he felicitated them with having comprehended that a Hospital is at the same time a school of science and of humanity, declaring that the Hospital administration and the Profession would indeed feel proud of such auxiliaries. He recommended them to carry with them into their daily practice, if not the impulse of such great days, at least those dispositions of exactitude and kindness which contribute so powerfully to the well-doing of patients."

One cannot but admire the devotion to humanity displayed by these young men; but surely we must regard it as misplaced, and not calling for imitation. In fact, we consider the conduct of M Morel-Lavallée in encouraging, or even permitting, the proceeding as reprehensible. Here we have a patient in as nearly a hopeless state as can be imagined, and with the bare hope—for this is all that could be reasonably expected—of prolonging life a short time, four or five young persons risk their lives in the performance of a disgusting operation. We say risk their lives, because, whether definitively proved or not, the belief is firmly held in France, founded on cases of no distant occurrence, that the excreta from diphtheretic or croupal air passages may impart fatal disease by coming in contact with the healthy buccal membrane. These students were sent by their friends to the Hospital in order to study the practice of their Profession, and to learn how to succour suffering humanity by all legitimate means; but surely a grave responsibility rests with those who encourage them to these "sensation" procedures, which might end in the loss of lives far more valuable to society than those sought to be saved by means which have not even the probability of success in their favour.

Some friends of humanity in Paris, not content with the in-

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conclusive decision of the Academy of Medicine respecting vivisections, have petitioned the French Senate in the matter, but with very indifferent success. Nay, worse success than at the Academy, for while in this learned body there were members who admitted and denounced the cruelties that are, or were, practised, in the Senate, composed exclusively of laymen, and comprising several members of the French Society for the Protection of Animals, not a word to this effect was uttered. The reporter on the petition denied the existence of abuses, and declared (as is true enough) that the whole subject had better be left to the sense of humanity entertained by the Profession than that any attempt should be made to institute a supervision which might prove mischievous to the interests of science and progress. From expressions in the report and in the discussion which followed, it was evidently very repugnant to follow the suggestions made in so offensive a manner by the London Society, which by the injudicious mode of its intermeddling has done more harm than good. More than one speaker also exposed the inconsistency of lessons in humanity being so liberally furnished by a nation which delights in dog-fighting and boxing. The Senate, however, thinks that there is indeed room for amendment with respect to the practising of operations upon living horses in the veterinary schools.

At the Académie des Sciences, M. Blanchard has read a favourable report upon M. Salvator Trichese's minute preparations of the nervous system of the pulmonated gasteropods. M. Jacubowitch, some time since, demonstrated that the cerebro-spinal nervous system of the vertebrata really consists of three different descriptions of cells. From one of these the fibres are principally produced which constitute the anterior or motor roots; and from another the fibres which especially form the posterior or sensitive roots; while from others, termed ganglionary, prolongations occur, which, together with variable proportions of the two first, constitute the nerves. Since then, fibres of various descriptions have been met with in invertebrata; and now M. Trichese exhibits certain delicate preparations, exhibiting the very complex structure of the principal ganglions in several pulmonated gasteropods. He demonstrates in these medullary centres three kinds of cells perfectly distinguishable—large rounded cells, smaller and pyriform cells, and minute cells, without any distinct wall.

SECOND IMPRESSIONS OF THE BRITISH PHARMACOPŒIA.

By A CHEMIST.

(Continued from page 237.)

"THE people of these countries," says an old writer, "God be thanked, will not drive; they who wish to rule them must try to lead them." The preface to the British Pharmacopœia concludes with the following words:—"The Council warn all Apothecaries and Pharmaceutic Chemists that, on the publication of the British Pharmacopœia, it will be necessary, in order to discharge safely their duties to the public, that they should duly alter or destroy all Pharmaceutic preparations made according to previous and now altered formulæ. The Council must further caution all Medical Practitioners, whether at home or in the colonies, or in the public services, that, in order to exercise their Profession safely, it is incumbent on them to make themselves familiar with the changes effected by the present work." This language has naturally given very general offence. To justify it, the most stringent legislative enactments, enforced by pains and penalties, ought to have been secured. The British Pharmacopœia possesses no legal authority whatever, and the only privilege the Council have obtained by the expenditure of many hundred pounds on an Act of Parliament, is to throw the odium of a great overcharge in the price of the book on the Lords of her Majesty's Treasury. The Act merely gives to the *new* the authority possessed by the *old* pharmacopœias—that is, just *none at all*.

If, however, we interpret the above passage most charitably, and as intending only to convey *advice*, not to dictate, it affords a curious, though far from singular, illustration of the utter ignorance of business and the common affairs of life of men like the members of the Council. Are there not thousands, perhaps tens of thousands, of prescriptions embracing the old formulæ in the hands of the public in constant and daily use? In what way is the dispensing druggist to deal with them when all his preparations are altered or destroyed? Moreover, is the Medical Council really unaware of the change effected in the Profession since the year 1815? Do they not know that the Practitioners, called Apothecaries, treat patients, prescribe, as well as prepare their own medicines, and, therefore, have no more to do in the way of obeying the injunctions of the Pharmacopœia than of the Nautical Almanac?

At the most, all that can be done by Pharmaceutics whose trade consists of preparing the medicines prescribed by Physicians and pure Surgeons, is to add to their already crowded and groaning shelves the few new forms of the British Pharmacopœia to be ready for a stray prescription or two written by the Council and their friends. But we find on inquiry that even this will entail on him a loss, as the Profession show no signs of recognising the work. They do well, as the more closely it is examined, the more faulty it appears, and we are much mistaken if it is not found necessary, as we have already suggested, at once to suppress it.

Were the Medical Council a representative body, elected by the Profession, every man whose name is on the authorised register would in a measure participate in the discredit of their egregious failure in the attempt to frame a Pharmacopœia. Happily it is not so. The Medical Council refused or neglected to take the advice of the Profession, or to secure the information they might readily have obtained had they invited it, and they must themselves bear as best they can the blame and censures pouring in upon them from all quarters. We should think that every member of the Medical Council must blush and his ears tingle when he hears the ironical praises and ludicrous exposure of their many mistakes by Mr. Theophilus Redwood, before an audience of druggists' apprentices, at the Pharmaceutical Society's rooms, amid loud and reiterated plaudits. We are truly sorry for all this, but we trust the lesson will not be lost on those most concerned. The character and dignity of the whole Profession is at stake, and steps must be at once taken to repair the blunder.

Never was the wisdom of the proverb *ne sutor ultra crepidam* more forcibly illustrated than in this case. A body of men, every one of whom we must acknowledge to be most estimable in their private character, and in professional and social status without reproach, undertake in their corporate capacity to deal with a subject of which they know little or nothing; thus exposing the Profession to which they belong to obloquy and ridicule.

Is this deserved or not? Let us see. We are almost ashamed to remark—so trite and well-known is the fact to everybody, except, as it would appear, to the Medical Council—that very many substances used in medicine are also employed in the arts, and are consequently manufactured in very large quantities. The manufacturers engaged in their production employ processes which they do not make known to the public. Many make only one or two such substances, and their success depends upon the economy of the process and the perfection of the result. The chemist in his experimental laboratory can produce any chemical substance, but only at a cost far exceeding the manufacturer's. Thus we have all the following as articles of commerce:—

Acids.—Acetic, glacial acetic, arsenious, citric, gallic, hydrochloric, nitric, sulphuric, sulphurous, tannic, tartaric. Ammonia; white bismuth; sulphate of copper; potash solution; permanganate of potash; carbonate of potash; nitrate of potash; chlorinated soda; magnesia—acetate, carbonate, oxide, sulphate, and chloride of zinc, etc.

The pharmaceutical chemist never dreams of making these—if he did, he could not do it successfully. The Medical Council occupy the Pharmacopœia with processes which are equally useless to him and to the manufacturer. Hence we ought to feel no surprise that in by far the greater proportion of these cases the methods and directions given will either not produce the desired substance at all, or do it in a most imperfect and expensive way.

Again, a great number of other chemicals have been long and in very general use. The same principle is applicable to them. They are not made by the *pharmacien*, but by manufacturers, and the articles they bring into the market are in all respects better than could be made with any amount of skill on a small scale. Thus, in the whole British Empire we doubt if there are more than two or three manufacturers of quinine. A few more may be occupied in producing all the

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vegetable alkaloids. Operative chemists and smaller manufacturers also, in a great measure, make a speciality of producing and furnishing the market with the following:—Benzoic and phosphoric acids, ether, spirits of nitrous ether, nitrate and oxide of silver, calomel and corrosive sublimate; chloroform; collodion; the iodides of mercury; iodine—chlorate, bicarbonate, sulphuret, acetate, sulphate, iodide, and bromide of potash; soda, and its salts.

Now surely it was not the business of the Medical Council to write a book on manufactures. If they thought themselves called upon to instruct either the manufacturer or the chemist, they have sadly mistaken their vocation. There are, indeed, a few preparations having a certain semblance to definite chemical compounds, but which are in reality not so, and they can be made of such various composition, yet having the same physical appearance, that no testing short of quantitative analysis will enable us to determine whether they are properly made or not. Such are the pseudo-crystalline citrates of iron, citrate of iron and quinine; various granulated preparations, etc.

It seems, therefore, as fitting to give formulæ for these as for mere empirical mixtures; but, as might be anticipated, those in the Pharmacopœia are far from satisfactory. It is far different with definite chemicals,—the method by which these are made must be entirely a matter of indifference provided they prove, on the application of the proper tests, to be what they profess, and of the closest attainable degree of purity. This is partly recognised in the list of Materia Medica, which ought entirely to supersede the formulæ by accurate definitions, and an enumeration and description of tests. So far as it goes, the Materi Medica is tolerably satisfactory in this respect. Errors may be pointed out—*ex gr.*, no notice is taken of the well-known fact that most of the ammoniacal compounds of commerce are contaminated with minute quantities of offensive matter, owing to their being derived from the residues of gas works. These impurities adhere tenaciously to every preparation made from commercial ammonia, and render them unfit for internal exhibition. But there are well-known makers of ammonia and its salts who evidently go to another source for their materials; and they, as a matter of course, command the market with the better class of pharmaciens. Surely some notice ought to have been taken of this.

It is by attempting to give directions for making chemicals mainly that the British Pharmacopœia is open to fatal objections. Thus, the form for *Acidium Aceticum Glaciale*, a perfectly useless article as a therapeutic agent, cannot be followed at all, or if followed will not produce it.

Acidum Nitricum is ordered to be made from nitrate of potash, and to be of such a strength that the product is a fusing, yellow, changeable, and useless article. Commercial nitric acid is colourless, stable, gives off no vapours, is strong enough for every purpose, in pharmacy or therapeutics, and being made from nitrate of soda, is far cheaper, *vide infra*.

In the directions for preparing *Hydrochloric Acid* it is forgotten to be added that heat must be applied to the materials in the retort. Another proof of what we have already alleged, that the work has been most loosely and carelessly edited.

Among the many chemicals which either cannot be produced at all, or very imperfectly, by the processes given we may enumerate sulphuric acid; nitrite of potash; carbonate of potash; tartarised iron; spirit of nitrous ether; and even pure distilled water.

The consequences of all these mistakes and errors it may be said are of no importance, because no *pharmacien* will follow the directions or attempt to make what he can buy so much cheaper and better from manufacturers.

This excuse will not do. We have to point out one instance of a mistake of a most serious nature. Among the processes we have one at page 168 for making nitric acid. If we turn to the Materia Medica, page 8, we find that the nitric acid made officinal by the British Pharmacopœia is to have the specific gravity 1·5. Such an acid can readily be made. The manufacturer can supply it of that strength. Two results follow. First, such an acid will, with sulphuric acid, make a gun cotton indeed, as is ordered at page 403; but there are many kinds of gun cotton, some soluble, others insoluble, in ether and spirits. The only purpose of the gun cotton ordered by the Pharmacopœia is for making collodion, as at p. 198. But that made by the process given will not dissolve in the ether and spirits, and is consequently useless. This, however, is a trifle. It is absurd enough, but of no further moment. A far more serious consequence flows from the ordering of nitric acid to be of the specific gravity 1·5. Such an acid contained in a bottle and packed in dry straw, hay, flax, tow, etc., will, if the bottle is broken, *set it on fire*.

In hundreds of cases will nitric acid of the British Pharmacopœia strength—*i.e.*, sp. gr. 1·5—be ordered for the country to go by railway, and for exportation to be conveyed by ship, and in every such case if by accident the bottle containing it is broken a conflagration will be the inevitable result. It is far more dangerous than gunpowder, which requires at least a spark, whilst this will produce spontaneous combustion.

Let insurance companies, railway managers, and shippers look to this. We give them due warning. This is no imaginary alarm, intended to frighten the timid. Two cases have occurred. In one instance some bottles of nitric acid of the Pharmacopœia strength were sent in a package to be shipped abroad. One of the bottles was broken while the package was in a barge on the Thames; it took fire, and was luckily extinguished. The shippers paid upwards of £100 for the damage done. In another case a package was ordered to be forwarded to the country. The acid was spilt, and set fire to a railway truck.

Will the Government permit the Medical Council to adhere to their new Pharmacopœia? If so, we shall hear of abundant cases of spontaneous combustion. But as this touches property, and not merely the lives of men, women, and children, it will soon be authoritatively corrected. Suppose it is not, not a ship can go to sea in safety, not a goods train on a railway but may catch fire from this cause.

We propose in another paper to offer a few remarks on the pharmaceutical and empirical formulæ of the British Pharmacopœia, together with some suggestions for the composition of a national work. We protest against the insidious advice given to the Medical Council to issue another edition of the present. Is not its title a misnomer? We are accustomed to call our country Great Britain and Ireland. The epithet "British" seems to exclude its application to the sister country; and Colonel Dunne may with some reason make it out an Irish grievance. Nothing short of the entire suppression of the British Pharmacopœia will meet the exigency, and the production of a new work under another title. Any attempt to patch up the present, with the aid of the same persons employed on this work, will of necessity fail.

The Medical Council, we are sure, will not be thus misled. If ever a set of men could afford to admit having erred, and frankly to take measures to correct their errors, the members of that body are the men to do it. They will see at once, on reading the comments and criticisms to which that book has been subjected, that it is to the Profession at large they are to look for the information to embody in a new Pharmacœpoia worthy of their vocation and station. The botanist may help them to a correct description of the plants yielding medicines. The chemist may guide the processes required in dealing with substances belonging to his science. The pharmaceutist may tell them the best method of compounding and preparing materials not amenable to chemistry; but the practical Physician alone can select, arrange, and characterise the agents useful in the treatment of diseases. Happily the country abounds with such, under various names, indeed, but all animated by one spirit and one aim, to advance and dignify the noble profession which they practise. We believe it has been a radical mistake of the Council to consult and defer to the opinions of persons either not belonging to the Profession or members who are committed to crotchets, which would not stand a moment were the testimony and opinions of the majority sought and listened to. Hence they were misled into attempts to describe the processes not belonging to them or to pharmaceutists, but to manufacturers or chemists. It would have been a perfectly logical and consistent sequence to have given directions for cultivating the plants adopted in their lists, and to have filled the book with agriculture, gardening, descriptions of manuring, ploughing, etc., or instructions in metallurgy and the fictile arts for making the vessels in which the processes of pharmacy are carried on.

(To be continued.)

TYPHUS FEVER AT CARLISLE.—Dr. Wheatley has made out a comparative return of the fever cases taken to the Fever House in the past quarter and in the corresponding quarter of last year. In last year's quarter there were nine cases of fever and one death; while in the past quarter there had been twenty-six cases, five of which had resulted in death, and three were not expected to recover.

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THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF STAFFORD.

(Continued from page 263.)

ASYLUMS FOR THE INSANE.

The County Lunatic Asylum.

Whatever other disadvantages Stafford may labour under, there are very few towns that have so admirably conducted an asylum. The County Lunatic Asylum, situated about a quarter of a mile from the town itself, affords accommodation for 500 inmates. It is a noble building, and is as perfect in its internal arrangements as in its external appearance. Through the kindness of Dr. Bower, the Superintendent-in-Chief, I was enabled to make a careful inspection of every part of the Asylum, and was supplied with numerous particulars of great interest to the Profession at large.

Ventilation—Aden's System.

Not to dwell on the arrangements of the various wards, I may begin by referring to the system of ventilation. This is artificial, and is framed on the plan known as "Aden's." The air is forced in from the lower part of the building by means of steam, and steam is allowed to mix with the air on its entrance. Thus charged with moisture, the air is conveyed through iron shafts to all parts of the building, and enters into the wards and rooms at the *upper part* near to the ceiling. It escapes by a series of openings into shafts of similar size and construction at the *lower part* of the wards or rooms, and is drawn into a common shaft, situated at the upper portion of the building, by means of a fire shaft, so as to ensure for it a constant current and exit. The system works well, and I note the fact specially because it is almost the only plan of artificial ventilation which can be seen in *effective* action. In principle this ventilation is analogous to that known in Paris as "Duvoir's method." The differences are two in number. In Duvoir's plan, instead of the fire shaft in the upper part of the building, there is an immense cistern of hot water, which causes sufficient radiation of heat to produce draught, and at the same time affords a current of hot water, which, passing downwards through pipes, gives warmth to the various apartments. Warming is in this way combined with ventilation, a combination that is not attempted in Aden's system, the warmth of the establishment being provided for by the open fire grate. Again, by Duvoir's plan the air is not admitted with steam, while in Aden's plan steam enters with the air. I was anxious to learn whether any of those evils common to the German method of driving heated air through iron pipes, and to the method of heating with iron stoves, were presented; I allude to the mischiefs arising from extreme dryness of the air and from the diffusion of minute particles of iron. On inquiry, I found that these evils were not present, and certainly it would be impossible to imagine in any room a purer and less objectionable atmosphere than that in the wards of the Stafford County Asylum. I think we may safely conclude that the English system is the best, and perhaps we may attribute its success to the admission of water vapour with the air, and to the fact that warming is effected by the open fire grate. The object of letting in the air at the upper part of the rooms and of letting it escape at the lower, is to allow the current of air, in passing, to sweep away with it all offensive matters, and to keep pure that portion of air in which the patient is placed.

Baths.

There is an improvement in the Stafford County Asylum in the construction of baths. These are made of cast-iron instead of wood, tin, or earthenware. They are painted on their inner surfaces, and are not only very clean, but exceedingly durable. They are extremely economical in the long run, and for large establishments are preferable to the other kinds of bath. The Profession is indebted to Dr. Bower for this improvement.

Beds and Bedsteads.

The *beds* are of horse-hair, and there is a method for changing the webbing which is gaining favour in other asylums, and which might advantageously be introduced into Hospitals generally. The webbing, of strong cloth, is not permanently attached to the bedstead, but can be removed altogether, whenever it is dirty or saturated with fluids, and replaced in a few minutes. The webbing is tightened up to any convenient tension by means of screws, which are worked from the outer edge of the bedstead on each side.

Decorative Art.

The Asylum is like a palace in respect to its decorations. Real palaces may be immensely more costly, but could hardly be more artistic. Every available space is occupied by some artistic production that is at once pleasing or instructive. Pictures line every wall, flowers are in abundance, and, in some of the larger corridors, doves and other birds and animals are allowed to live in large handsome cages. The mouldings, also, of the walls, the colouring, and the cornices are simple and yet very pretty. In a word, for cleanliness, purity of air, and embellishment, nothing is left to be wished for; and if the inmates who are thus nourished through the senses are not, as Wordsworth puts it—

> "healed and harmonised
> By the benignant touch of love and beauty,"

their malady is confirmed indeed. The governors of the Stafford County Hospital should step across to the Stafford County Asylum; they might gain a whole forehead of wrinkles for their trouble.

The Asylum Farm—Value of Sewage.

Those of our brethren—and there are not a few of them—who blend the pursuit of agriculture with the art of Physic should see the small farm that is connected with the Asylum, and which is farmed on model and economical principles by Dr. Bower. The farm, worked to a great extent by the inmates, yields valuable contributions to the house, and they have been greatly increased of late by the utilisation of the sewage. The sewage of the Gaol is now also collected in the Asylum tank, and is applied, with that from the Asylum itself, to the farm. The excretes from 1400 persons are thus utilised. The whole is first received into an immense tank, and is diluted in 1800 parts of water. Thus diluted, it is applied in limited dressings over the land, which, by the way, is all pasture land. Two tons of grass per acre is the produce—an increase double what the land would be worth, for grass, if the sewage were not utilised as it is. Dr. Bower is of opinion—and his practical and careful experience is of much value in this matter—that the dilution of the sewage, and the employment of it in moderate quantities, are all-important as means of success. In this point of view his observations tend strongly in favour of the correctness of Mr. Ellis's method for the employment of the sewage of London.

Practice of the Asylum.

In the practice of the Asylum non-restraint is now carried out so fully that even seclusion and the use of the padded room are ignored. No patient has been shut up for two years past. The cases admitted are numerous in type; but unusually large numbers of sufferers from insanity and general paralysis are present. Acute mania affords the greatest number of cases; ordinary mania the next largest, and dementia the next still. Instances of puerperal mania are much more frequent than would at first be supposed; no less than fifteen females having been admitted for this complaint in the year 1862 alone. The connection of disease of the body previous to the development of mental disorder is broadly marked. Thus in the year 1862 not more than twenty-eight patients, out of two hundred and twenty-six admitted into the house, were pronounced, on entry, as in "good health and condition." Thirty-one were sufferers from epilepsy, twenty-seven from paralysis, thirty-one from disease of brain, ten from puerperal disease, seven from pulmonary consumption, and fifty-four from general exhaustion. It would be important in all cases to note, as a further addition to Dr. Bower's able examinations of cases on entry, the precise condition of the urine, with special reference to the questions of the elimination of phosphates and of sugar.

The numbers of recoveries that take place are considerable; in the year 1862 they amounted to 62·75 per cent. on the admissions for that year. The mortality is comparatively small. In the year named above, although the infirmaries were filled during the summer months with cases of paralysis and other affections of the brain, the mortality was but 8·19 per cent. on the total number under treatment. Paralysis was the cause of death in more than a fourth of the cases that terminated fatally, while about a fifteenth died from old age—senile decay. The reason for this low mortality is found in the freedom of the establishment from endemic and epidemic disorders. In point of fact, there are no such indices of what can be achieved by perfect sanitary regulations as the great lunatic asylums of England, and I was much amused once at hearing this fact referred to by an inmate of an asylum. Visiting the asylum at Lincoln a few years ago, I met there a

patient who had once been a member of the Medical Profession, and who, full of talk and nonsense, said now and then a very good thing. Amongst other arguments—for, like one of the heroes of "Midshipman Easy," he delighted in the opportunity of undertaking to argue out every point—he insisted on the immense advantages of being insane. "George the Third was a fool, Sir, till he was mad; never had a moment's happiness or peace, Sir, till he was mad. Neither had I. Now I'm a gentleman, and these folks who work here all run after me, and wait on me, while I look on and think how jolly it is to see what fools they are. I always say they are mad, and I am sane; and I'm right—ain't I, now, eh?" Then, turning to the Asylum, for this conversation took place in the grounds, he assumed a profound Medical air, cocked up his chin, pursed his mouth, and added, "Then, your cholera, and your small-pox, and fever; we've none of them in our house—they are for the fools outside. Why don't you go mad, and get away from them, and make other people work for you, and be jolly and come here—eh?"

The causes of insanity are carefully investigated at the Stafford Asylum. As each case is entered on the books a rigid inquiry is made as to cause. Alas! for Stafford county, it is not better than its neighbours. Intemperance, poverty and privation, and hereditary predisposition springing from these, are the great producers of its insane population. Year by year the same tale is told. Below we have the return of causes for 1860—an average return:—

Cause of Disorder.

	Males.	Females.	Total.
Anxiety and grief	3	16	19
Intemperance	42	10	52
Congenital defect	3	3	6
Hereditary predisposition	23	33	56
Poverty and privation	8	12	20
Disease of brain	11	1	12
Blindness, with diseased brain	1	1	2
Scrofula	—	3	3
Other bodily disease	6	16	22
Puerperal disease	—	15	15
Old age	3	3	6
Profligacy and intemperance	—	3	3
Epilepsy	10	7	17
Fright	—	1	1
Injury to spine	1	—	1
Injury to head	1	—	1
Cause not ascertained	8	6	14
	120	130	250

Cases of Singular Interest.

Asylum practice not uncommonly yields cases of peculiar interest, even in Surgery. Dr. Bower was good enough to place before me several remarkable illustrations, of which I may note two or three. In one of these cases the patient, a female, aged 43 years, retired one morning to a water-closet, after having secreted about her dress a pair of scissors, and before she could be prevented had time deliberately to make an opening into her own abdomen, draw out some inches of the small intestine, cut the portion drawn out clean off, and throw it away. When Dr. Bower arrived he found two open ends of bowel protruding, and he endeavoured to bring them together by sewing their ends while in apposition. This direct object did not succeed; the open ends of the bowel became adherent to the wound in the walls of the abdomen, and an artificial anus was formed in the median line, midway between the umbilicus and pubes, through which the evacuations of the bowels were discharged. To the surprise of all, this woman recovered without a bad symptom, and some time afterwards she was discharged from the Asylum cured of her insanity. Later in her life she was actually one day sent from her native place to the Asylum either in charge of, or to fetch home, another patient. At that time she remained in bodily and mental health, suffering no further inconvenience than that from wearing a support, and of having to discharge the contents of the bowels through the artificial opening.

A patient was shown to me on the male side who had lost two fingers—the first and second of his hand—down to the second phalanges. The loss was occasioned, not by an accident, but positively from his having himself bitten the fingers off and eaten them. The operation appears to have been done almost unconsciously, and to have given rise to no pain. The wounds closed well, and the stumps are as perfect as if the amputations had been conducted on the most improved Surgical method.

A third case was that of a man who suffered from sloughing of the scrotum to such an extent that both testicles were exposed, and were for some weeks clearly dissected out, as it were, and pendant. The patient having improved in general health, the sloughing was arrested, reparation set in, and gradually the testes became invested in new tissue, until, at last, they were surrounded by what seemed like a new scrotum. It would have been difficult to discover, when the cure was completed, that new structure had been formed—the scrotum was so natural.

Principles of Treatment.

There is, as I have said, no seclusion or no coercion in the Stafford Asylum. Gentle work, and amusements of various kinds, such as music, dancing, exhibitions, cricket, football, etc., are the means adopted for passing the time. At this moment there is in course of construction a spacious recreation hall, in which the patients will all dine together.

The diet is liberal, as will be obvious from the scale supplied below. I think, however, it is a mistake to weigh it out—a mistake in economy and in feeling.

Diet Table.

	Breakfast.					Dinner.														Supper.					
	Males.		Females.			Males.								Females.							Males.			Females.		
	Cocoa with Milk and Sugar.	Bread.	Cocoa with Milk and Sugar.	Bread.	Butter.	Cooked Meat free from bone.	Bread.	Beer.	Soup.	Meat Pie.	Rice or other Puddings.	Potatoes.	Other Vegetables.	Cooked Meat free from bone.	Bread.	Beer.	Soup.	Meat Pie.	Rice or other Puddings.	Potatoes.	Other Vegetables.	Bread.	Cheese.	Beer.	Bread.	Butter.	Tea with Milk and Sugar.
	pt.	oz.	pt.	oz.	oz.	oz.	oz.	pt.	pt.	oz.	oz.	lb.		oz.	oz.	pt.	pt.	oz.	oz.	lb.		oz.	oz.	pt.	oz.	oz.	pt.
Sunday	1	8	1	6	½	6	6	½	—	—	—	½	Not weighed, but served out at discretion.	5	6	½	1	—	—	½	Not weighed, but served out at discretion.	8	2	½	6	½	1
Monday	1	8	1	6	½	—	6	½	1	—	10	½		—	4	½	—	—	8	½		8	2	½	6	½	1
Tuesday	1	8	1	6	½	—	3	½	—	14	—	½		—	3	½	—	10	—	½		8	2	½	6	½	1
Wednesday ..	1	8	1	6	½	6	6	½	—	—	—	½		5	6	½	—	—	—	½		8	2	½	6	½	1
Thursday	1	8	1	6	½	—	6	½	1	—	10	½		—	4	½	1	—	8	½		8	2	½	6	½	1
Friday	1	8	1	6	½	6	6	½	—	—	—	½		5	6	½	—	—	—	½		8	2	½	6	½	1
Saturday	1	8	1	6	½	—	3	½	—	14	—	½		—	3	½	—	10	—	½		8	2	½	6	½	1
Total weekly amount	7	56	7	42	3½	18	36	5½	2	28	20	2½		15	32	3½	2	20	16	2½		56	14	5½	42	3½	7

Extras.—Full diet, consisting of 6 oz. of meat, with ale, wine, or brandy, in cases of illness or debility. Soup, arrowroot, eggs, bacon, etc., if necessary. To working patients: Bread, cheese, beer, and tobacco, as indulgences. Total amount of meat consumed by each patient weekly: Males, 30 oz., cooked and free from bone; females, 24 oz., cooked and free from bone.

To Make Soup for 100 Patients.—The liquor in which the meat of the previous day has been boiled, 12½ lbs. of meat, consisting of legs and shins of beef, 1½ lbs. of rice, 3 lbs. of onions, 3 lbs. of leeks, 6 ozs. of salt, 2 ozs. of pepper, 3½ quarts of peas, with herbs, etc., consisting of carrots, turnips, cabbage, celery, parsley, and parsnips, according to the season, and sufficient water to make 100 pints.

To Make Cocoa for 200 Patients.—9 lbs. 6 ozs. of cocoa, 6 lbs. 4 ozs. of sugar, 9 quarts of milk, and sufficient water to make 200 pints.

In the medicinal treatment of the insane, particularly during periods of maniacal excitement, Dr. Bower uses full doses of digitalis with great advantage. This remedy is of special value when there is disease and excitability of the heart. In

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these cases the digitalis acts like a charm; it produces calm without leading to sopor; it exerts no bad effects on the digestive functions, and it leaves no serious depression behind. Thus, it is far preferable to narcotics in cases for which it is suitable. The cannabis indica has been employed extensively as an anodyne, and occasionally its action is good, but it sometimes fails. On the whole, when opium is not administrable, the cannabis is less certain than hyoscyanus, which, when given boldly, is invaluable in the treatment of mental disease. As an opiate, a watery solution of opium is used in preference to the other forms of the drug.

In conclusion, I have only to add that the number of patients received into the Stafford County Asylum since its foundation has been 5850; that the recoveries have been 8·19 per cent.; and that the cost of each patient in the Asylum is now 8s. 6¾d. per week.

Dr. Mark Noble Bower is the Resident Medical Officer and Superintendent, and Dr. Robert A. Davis is the Assistant Medical Officer.

THE COTON-HILL INSTITUTION FOR THE INSANE.

Near to Stafford is another institution for the insane, called the Coton-hill Institution. This Asylum is for the reception of two classes of insane patients, viz.—1st. Patients in more or less affluent circumstances who shall contribute, according to the accommodation required, such weekly sum as may be agreed upon; and 2nd. Patients in limited circumstances, though not paupers, who shall be received at such reduced rates of payment as the Committee, upon a consideration of their circumstances, may in each case determine; the deficiency being made up out of the surplus moneys received from the patients of the first class beyond their actual cost, assisted by annual subscriptions, donations, and legacies. For every two guineas subscribed annually, subscribers are entitled, during payment, to recommend, subject to the powers reserved to the House Committee, one patient within the year for admission into the second class; donors have the same privilege during life for every twenty guineas.

The Medical officers attached to this Institution are—a Visiting Physician, who receives a stipend of 100 guineas a year, and a Resident Superintendent. The former office, now, I believe, vacant, has been held until recently by Dr. Wollaston, a relative of the great Physicist of that name; the latter is held by Dr. Hewson.

I cannot close the account of the charities of Stafford without referring to the labours of Thomas Salt, jun., Esq., M.P. In every philanthropic undertaking connected with the town of Stafford, he is the foremost and the untiring advocate. It was through him that the Soup Kitchen and the Church Institute were established; and to every charity and good cause, where contribution from the pocket as well as from the hand is wanted, he stands the ready minister and friend. In paying this just, but trifling tribute, I know I am expressing the general opinion of those who know Mr. Salt best; and were the spirit by which he is animated of broader representation, many of the defects to which I have drawn attention would, I doubt not, be speedily rectified.

THE COUNTY GAOL.

The County Gaol, constructed for holding 630 prisoners, is a dull, heavy building of brick, which, for style, sets the science of architecture altogether at defiance. As a gaol, however, according to modern notions, it answers its purpose, which is as much, perhaps, as can be said of any such place. The general mortality per annum is rather less than 1 per cent. Attached to the gaol is an Infirmary, which, on the male side, contains sixteen beds; and on the female, nine. The infirmary is ventilated by means of a cupola, the sections of which are opened or closed as may be required. The space for each patient in the infirmary is 500 cubic feet. The gaol is comparatively healthy. Fever cases for many years past have been unknown. Consumption at one time was prevalent, probably from greater confinement of the prisoners than is now adopted.

Mr. Hughes, the Surgeon to the gaol, and the esteemed senior representative of Surgery in Stafford, informs me of a singular phenomenon in disease that has been observed in the gaol during the past few months. For some considerable time diarrhœa was a constant symptom of disease amongst those prisoners who had been long resident within the prison walls. At last the disorder amongst them became actually endemic. Ordinary medicinal measures proving ineffective, Mr. Hughes began to try modifications of diet, and at last discovered that the disorder could be arrested wholesale and immediately by simply stopping the animal diet, boiled beef, on which the prisoners affected were fed, and substituting for it good cheese, as a nitrogenous article. Since the adoption of this plan, modified according to circumstances, diarrhœa has ceased in the gaol.

Sanitary Condition of Stafford.

Population.—The population of Stafford at the census of 1861 was 12,532. In this statement the borough only is given. In 1851, the population was 11,829. In the 10 years, 1851-61, the increase, therefore, of population was 703, an increase exceedingly small, and not favourable to the idea of social progress in the town. With such a slow natural increase, a severe epidemic visitation, or social causes leading to emigration, would rapidly turn the scale in the opposite direction, and lead to a decrease of population altogether. It is matter of wonder to observe how little importance is attached, even by thinking men, to this question of population. In commenting on the Medical History of Lynn, one of my Medical friends asked me why I dwelt with so much stress on the circumstance that the population of that town was suffering decrease. "There were," he said, "plenty of people born, and a town could afford to spare its lower population." No argument could be more seriously fallacious. The upper stratum of society rests as much on the lower as the walls of a house rest on the foundations. Wealth may mean the enjoyment of privileges without labour; but if there are no hands to be bought by wealth for the performance of the labour, then even the wealthy must labour, or their luxuries must be abandoned. Hence, in any town, when the people begin to decay, even though wealth has accumulated, the condition is bad.

It is bad for the Professional man, for such a town becomes uncomfortable for the rich, who therefore leave it, and go elsewhere where their money may be applied. For my part, I do not think that the importance of the question of population can be exaggerated; and if the young Medical Practitioner especially ignores it, he may depend upon it he is committing a grave fault. To look at the populations of towns and cities is to look at social maps; and to learn by them is a certain course to success. Were I again to have to decide the great question—Where, as a Doctor, shall I hoist up my colours?—I should turn to these maps, and if there is one place more than another that I should avoid, it is that place where the population is undergoing certain decrement, or where the increment is insufficient to ensure a constant balance against death.

(To be continued.)

GENERAL CORRESPONDENCE.

THE DEATH-RATE AFTER LITHOTOMY IN THE NORWICH AND LONDON HOSPITALS.

Letter from Mr. Thompson.

[To the Editor of the Medical Times and Gazette.

Sir,—On January 9 last Dr. Richardson, affirming the well-known fact that the mortality rate at Norwich from lithotomy at all ages is one death in 7¾ cases, characterised it as "a success which, by the side of many other Hospitals, stands as four to one." He further volunteers the statement, "*If the same number of operations had, for instance, been performed at Metropolitan Hospitals, the deaths would, on the modern average, have been* 472, *instead of* 118;" and, continuing the subject, he says, the death-rate of "1 in 1·88" is "common in London."

On the 16th I produced, in reply, the most trustworthy figures that exist on this subject, and showed that of 520 cases which had been performed at the only three London Hospitals where accurate records exist, the average death-rate was almost as low as that of Norwich.

After seven weeks' silence, Dr. Richardson indicated the data on which he made that astounding statement. They are at this moment before me; and they consist of 186 cases at all ages, collected by circular from Hospitals in London during three and a-half years. It seems scarcely credible, but such is the fact, that Dr. Richardson has rejected from that series all the children's cases; that he calculated the mortality from the adult cases alone (20 years and upwards), 49 only in number; and from the 26 deaths in that slender list he deduced

the rate of 1 death in 1·88 case, and actually adopts it as the London rate in comparison with the Norwich rate for all ages, for the purpose of depreciating the results of London practice.

In other words, he takes the 910 cases of Norwich,—of which exactly one-half (445) are below 20 years of age, including, therefore, all the children, whose cases are proverbially successful,—and compares the total death-rate with that derived from the London list, having first excluded from the latter all the cases below 20 years, and consequently all the cases aforesaid to be proverbially successful. The death-rate for the 186 cases of the London series, at all ages, being, in fact, 1 death in 4·65 (*Med. Times and Gaz.*, August 20, 1859).

I beg my readers now to read the quotation from Dr. Richardson placed in italics at the commencement, and ask them to characterise for themselves the process by which that result is arrived at.

I could adduce numerous other examples of Dr. Richardson's extreme inaccuracy, and shall readily do so if called upon; but they would occupy too much time and space now. Let one suffice as an example.

In the 910 Norwich cases, all stated by him to be lithotomy, are included no less than 41 cases of stone in the female, mostly adult and removed by dilatation, in which the mortality, therefore, was only one in twenty. From his London series, all the female cases were carefully excluded. Will it be believed that there were no less than sixteen female cases, and with one death only, during that term of three and a-half years? Dr. Richardson will explain why he made this difference, and his familiarity with figures will show him how much the London rate would have been improved had he treated the two series with equal fairness.

Next, Dr. Richardson compares the results of my three London Hospitals (520 cases) with those of thirteen Hospitals (186 cases); and suggests that I "have found out three Hospitals that have yielded results nearly as good as the one at Norwich;" adding "that the practice of one or two" (other) "Hospitals has turned the scale against London." I reply that I made application to all the larger Hospitals; all were most anxious to afford me results; but I accepted those only in which written records existed, carefully kept for a number of years. I leave others to judge which series, therefore, is most likely to be correct, that of the three Hospitals or that of the thirteen.

My own metropolitan tables show, and I have never said otherwise, a greater mortality than that of Norwich as regards the adult, but nothing approaching to that affirmed by Dr. Richardson. Whatever may be the influence of overcrowded wards, there are two other and most influential causes for this. First, the adults in London having calculi are not to be compared for health and strength to those of the country. I have seen enough of both, and know both classes well. Secondly, many of our patients are selected bad cases sent up from the country. Such are well described in the very article from which Dr. Richardson has culled his data; and let it be remarked that the writer is referring to the identical instances which have been adduced to prove metropolitan failure. He writes:—"Of this we are sure, that some of the very worst in the whole series were patients who had been so sent up (from the country) for operation. Not unfrequently there is a history that lithotrity has been repeatedly tried; but that the bladder becoming more and more irritable, and the patient's health failing, the case has been sent up to town for further measures." I quote Dr. Richardson's own authority, *Medical Times*, August 20, 1859.

Again, I must protest against the fallacy of drawing inferences from such small numbers as those with which Dr. Richardson has been so ready to traduce the London practice. I cannot give a better illustration of it than by quoting his purely gratuitous remark that "Mr. Thompson does not dispute" (why should I?) "the startling fact that, twice over, forty cases, taken as they came, were operated on for stone in two distinct series without the occurrence of a single death." I have to inform Dr. Richardson that it is well known that the esteemed and honoured Surgeon who met with those series of cases was little, if at all, more successful than his brethren—comparing the result of his entire practice. He had his share of fatal cases, and every accurate record will show them if only it deals with numbers sufficiently large.

One word in reference to the relative results of metropolitan and provincial Hospitals as influenced by sanitary considerations. I do not enter upon that subject, but remark only on one point arising out of the question before us.

I examine the 186 London cases produced by Dr. Richardson, and I find, as he says, a large number of children. The death-rate of these children's cases is 1 in 13¼. The rate at Norwich is precisely the same. Now, if sanitary advantages are so great in the provinces, how is this fact to be accounted for? I commend to Dr. Richardson the striking reflections on this topic appended by the writer of the very article above quoted, which presents my view of the subject most completely.

In conclusion, I hope and believe we shall yet see much improvement to the sanitary condition of our London Hospitals; that we may have smaller wards and larger space for each inmate. All this is within our reach, and is simply a question of expense. I thank Dr. Richardson for his unflinching advocacy of sanitary reform, but I remind him that this good cause will never be furthered by propagating exaggerated statements respecting the mortality which follows the operations performed by London Surgeons. I am, &c.

35, Wimpole-street, March 7. HENRY THOMPSON.

THE MORTALITY IN THE NORWICH AND LONDON HOSPITALS.

LETTER FROM MR. T. HOLMES.

[To the Editor of the Medical Times and Gazette.]

SIR,—I am very glad that Dr. Richardson has at length recognised the necessity of producing some justification for the strange assertions made in his paper on the Norwich Hospital. The figures which he gives as proving the mortality of the London Hospitals have no application whatever to the conclusion which he drew from them, and it would, I think, have been better if Dr. Richardson had given up that conclusion altogether as erroneous, and admitted that the mortality after the operation of lithotomy in London Hospitals has never been proved to be 1 in 1·8 (as I am certain it never has been). But this part of Dr. Richardson's paper is in answer to Dr. Thompson, and will, I suppose, be dealt with by that gentleman.

I have a few words to say about each of the three other points touched on in my last letter, and answered in the note to Dr. Richardson's paper. Dr. Richardson complains that I have misunderstood him in saying that he attributed the greater success of Norwich practice to the difference in the air of Norwich and London. He now says that he attributes it to the fact that Benjamin Gooch provided each patient with 1215 cubic feet of air and natural ventilation, ignoring, as it seems, the fact that the constructors of our London Hospitals have provided their patients with more cubic feet of air and freer ventilation. If Dr. Richardson seriously intends to assert that the Norwich Hospital is more spacious and better ventilated than our large London Hospitals, say St. Bartholomew's, I would appeal to any unprejudiced person, who knows the two Hospitals, to say whether this is so or not. I think the case is demonstrably the reverse. At St. Bartholomew's Hospital there is an allowance of cubic space varying from 1350 to 1800 feet per patient; at St. George's of about 1200 to 1400; at the London Hospital about 1600; at Guy's about 2000. All these Hospitals have more complete ventilation than the Norwich Hospital, although the latter is by no means ill-ventilated. If Dr. Richardson should say that what he meant was that the Norwich Hospital was less in the town than those which I have mentioned, and, therefore, not so close to the dwellings of the poor, this may be true with respect to the other Hospitals, but certainly not for St. George's. Yet we at St. George's do not claim any superiority in the results of our operations over the other Hospitals I have named; and it is singular that our ratio of deaths after amputation of the thigh for chronic disease, in a series of years, is exactly the same as that at Guy's. I think, therefore, I was justified in assigning the above meaning to Dr. Richardson's words, which, in fact, is the only meaning that they can properly bear.

With respect to the third point—viz., the death-rate of Surgical patients in the year 1862. This is a matter which I regard as one of very minor importance, but since Dr. Richardson appears to lay great stress upon it, since he thinks that Hospital death-rates are useful in comparing their relative sanitary condition, and still more, since a writer who uses figures at all is bound to use them accurately, I think it well to correct him in this particular. I brought away from Norwich a note that the death-rate of the Surgical patients for 1862 was 5·14 per cent. On referring again to Mr. Williams, the resident Medical officer at the Hospital, he assures me that this is correct. Had not Dr. Richardson the same data?

As to the prevalence of pyæmia, I referred also to the same gentleman. Mr. Williams informs me that "in looking over the 'cause of death' book, he found two cases occurred during 1863, three in 1862, and not one in 1861 or 1860." He also informed me, on January 19, that he had written to Dr. Richardson to correct the error which he had noticed in Dr. Richardson's paper. I am much surprised, therefore, to find that Dr. Richardson should still persist in saying that only one fatal case has occurred in seven years, when he had the data before him to show that five fatal cases, at least, had occurred in four years. I say "at least," because others may well have occurred, which escaped registration in a "cause of death book." Dr. Richardson now affects to treat the matter as one of entire indifference, though before he brought it forward triumphantly as a proof and index of the healthy condition of the Hospital. The fact is, that comparing the number of cases of pyæmia given by Mr. Williams with the number of deaths (taken at 45 to 50 per annum, which is about the usual rate), they give a proportion of deaths from pyæmia about equal to that of the Metropolitan Hospitals.

I think these few particulars will give your readers a sufficient specimen of the accuracy and care of Dr. Richardson's statistics. I am, &c.

22, Queen-street, Mayfair, March 7. T. Holmes.

HOSPITAL MORTALITY.

Letter from Mr. J. Burney Yeo.

[To the Editor of the Medical Times and Gazette.]

Sir,—Some very interesting communications have appeared in your last few numbers on "Hospital Mortality;" may I be allowed to say a few words on this important subject?

My remarks will be confined to the Hospital with which I am connected, taking it as a fair example of a country Hospital. I must premise that it is the oldest provincial Hospital in England (it was founded in 1736), that the present building was not originally erected for a Hospital, and that its age is not unattended with infirmities. It has no efficient drainage, the ventilation of many parts of the building is bad, and the cubic space allowed to each patient in some of the wards much below what it should be (only 860 cubic feet). Indeed, as you must be aware, its days are numbered, and soon the "New County Hospital at Winchester" will supersede the present building.

Turning, then, to the death-rate in this old and condemned country Hospital—supposing the death-rate to be a test of the sanitary condition of a Hospital—one would expect to find it rather above the average of similar institutions. The reverse is really the case. The death-rate at this Hospital is below the average of other country Hospitals, as the following figures will show:—

The average death-rate in twenty-five country Hospitals, according to Dr. Farr, was 39 per cent. Following Dr. Farr's plan of calculating the per centage of deaths to the number of beds occupied, I find that in the Winchester Hospital the average death-rate for the last ten years has been only 35 per cent. In the years ending respectively June, 1862, and June, 1863, the death-rate reached only 25 per cent.; and, in the eight months that have elapsed of our current year, although our wards have been fuller than for many preceding years, the actual number of deaths has been smaller, and, therefore, the death-rate lower, than the lowest rate I have quoted above. Yet, in this country Hospital, with its low rate of mortality, I find that in 1861 there were, out of a total of 32 deaths, 9, or nearly a third, from erysipelas contracted in the Hospital. In 1858, 6 deaths out of 26, nearly a fourth, from disease contracted in the Hospital; and in 1856, 7 out of 30 deaths from like causes. These figures are taken from a printed official report.

Here, then, is a Hospital with a low average death-rate, yielding a large number of victims to so-called Hospital diseases—diseases which are generally considered to arise from defective sanitary conditions, and that this consideration is true, the experience of this Hospital appears to show clearly. For instance, the highest death-rate registered for many years was in 1861, reaching 44 per cent., nearly one-third of the deaths being from erysipelas.

This increased mortality drew the attention of the Governors of this Hospital to the sanitary condition of the present building. It was then determined that a new Hospital should be erected upon a new site. But, at Mr. Rawlinson's suggestion, the sewers, drains, and cesspools connected with the present building were cleansed and disinfected, and the larger cesspool ventilated, and the gases proceeding from it passed through layers of charcoal. What was the effect of this simple expedient? Why, that the next year the death-rate fell from 44 to 24 per cent. The following year it was 25 per cent.; and this year, so far as it has gone, commencing the 1st of last July, the death-rate is still lower, although the Hospital has been more crowded than for eight years previously.

After these preliminary considerations, one is in a better position to deal with the problem which Miss Nightingale says "demands solution"—viz., the low death-rate in country Hospitals compared with Hospitals in large towns. Sanitary conditions, doubtless, exert a considerable influence. But in the case of the Winchester Hospital we have a remarkable instance of defective sanitary conditions, and yet a low average death-rate.

What, then, is the true solution of this problem? Any one, I think, who has lived both in a metropolitan and in a country Hospital must be prepared to agree with Mr. Holmes, that it is in the widely-different class of cases admitted that the solution of the problem rests. Admission to country Hospitals is usually so easy, and their wards are so rarely full, that cases of a most trivial nature often find admittance. There is no selection of cases according to their severity, or with reference to clinical instruction, as in those Hospitals with Medical Schools attached to them. Chronic rheumatism amongst the men, the various forms of hysteria and anæmia amongst the women, and dyspepsia amongst both, constitute the majority of cases in our Medical wards. To show strikingly the difference between the severity of the cases in a London Hospital and those in a country Hospital such as ours, I would mention that I have just visited our Medical wards, and, out of forty patients, I find only four in bed, the rest were either sitting or walking in the ward, or in their day-rooms, or in the garden; and this is in the most sickly season of the year. In the summer, it commonly happens that one finds the Medical wards deserted—all the patients are in the garden, the men smoking, the women chattering.

If this is the case in other country Hospitals—and I believe it is so—we must admit that the metropolitan Hospitals and Hospitals in large towns are filled with a very different class of cases, especially so far as Medical cases are concerned, and that any conclusions drawn from a comparison of their respective death-rates (without taking other circumstances into consideration) must be valueless. I am, &c.

J. Burney Yeo,
House-Surgeon and Secretary,
February 27. Hants County Hospital.

THE MORTALITY IN GENERAL HOSPITALS.

Letter from Dr. Bristowe.

[To the Editor of the Medical Times and Gazette.]

Sir,—I regret that personal circumstances, over which I had no control, prevented me from writing to you until now.

Dr. Farr, in your Journal of February 13, spoke of "defects which make Hospitals ways of death to their inmates," and spoke of it as matter for hope that "general Hospitals may yet benefit mankind directly, and not merely as pathological observatories and Medical schools."

In your Journal of February 20, I adverted to the above-mentioned letter, and invited Dr. Farr to explain the grounds of the very heavy accusation which he had therein expressed or insinuated.

In answer to my appeal, Dr. Farr, in your Journal of February 27, refers to a certain letter of his, published in the twenty-fourth report of the Registrar-General, as containing some of the information which has been collected at the General Register Office respecting Hospitals."

The only information therein contained which can be supposed to bear upon the subject is in two tables. The first of these tables shows that, in proportion to the number of beds occupied, deaths occur more abundantly in Hospitals than in workhouses or lunatic asylums. The second shows that, in proportion to the number of beds occupied, more deaths occur in large than in small Hospitals.

Will Dr. Farr have the goodness to state in your journal how he connects these statistical facts with the conclusions which he first advanced?

It is the more important that this question should be explicitly answered, because Miss Nightingale (resting on Dr. Farr's statistics, and apparently with Dr. Farr's logic) would

lead the public to believe that the "death-rate" of a Hospital corresponds to the greater or less exposure of the Hospital inmates to certain removable causes of Hospital "unhealthiness," and that by such causes our great metropolitan Hospitals are rendered, as Dr. Farr expresses it, "ways of death to their inmates." Will Dr. Farr explain himself on this point? I am, &c.

J. S. Bristowe.

2, Queen-square, Westminster, March 9.

ARMY MEDICAL SERVICE.

[To the Editor of the Medical Times and Gazette.]

Sir,—Allow me, through your columns, to call the attention of those young men about to become candidates for the above Service to the present state of the department.

If they will take the Army List for this month of March, and calculate the number of Assistant-Surgeons to be provided for from February, 1854, to January 1, 1860, inclusive, they will find the number to be about 513. Let them divide that number by 30 (the average number disposed of by promotion, death, and resignation each year) and the product will be 17; so that those young men who joined the service on January 19, 1860, have to serve seventeen years, in addition to the four years served since 1860 to 1864, making a period of twenty-one years before they can be promoted to the rank of Surgeon—more than double the time heretofore required to attain to that position. Will this state of things cause them to pause, and consider well before they take the step?

By the warrant of 1858 a Surgeon having twenty years' full pay service in army rank shall be styled "Surgeon-Major," with increase of pay; but I am at a loss to understand what is to become of the wretched Assistant-Surgeon of twenty-one years' service, and still an Assistant-Surgeon. Will a new grade be created for them, called "Assistant-Surgeon-Majors," with additional pay?

The extension of the age of admission now proposed, from 26 years to 30, is a strong proof of the ridiculous lengths the Director-General is willing to go in the wrong direction to fill up vacancies. Can you imagine a Medical man, having attained the age of 30, seeking to become a student at Netley on 5s. a-day, unless he be some failure in civil life—a bankrupt, perhaps, in morality? I challenge the authorities to say they consider this alteration of age is for the benefit of the service or the advantage of the sick soldier; no other motives should influence them. I am, &c.

March 8. An Ex Assistant-Surgeon.

THE GOVERNMENT ANNUITIES BILL.

[To the Editor of the Medical Times and Gazette.]

Sir,—No one can have read the speech on the Government Annuities Bill delivered by the Chancellor of the Exchequer in the House of Commons last evening without profound admiration for the eloquence, sympathy, and good qualities of heart displayed therein. The members of our Profession will, I think, take especial interest in the object Mr. Gladstone has in view in this matter, seeing that they are ever eager to be thought, as indeed they are, among the foremost of philanthropists; and I think we as a body may be doing well in taking every opportunity of showing our concurrence with the measures contemplated in the aforesaid bill for the good of the poor. Moreover, we may in this manner be able to give a moral support of no inconsiderable extent to the intentions and endeavours of Mr. Gladstone. It will be seen that it is in prospect that the various Union Medical officers should be called upon to certify to the condition of such as shall claim the benefit of Government assurance.

We shall surely consider this a very desirable step, and for the sake of our brethren hail an operation which will tend materially to augment the remuneration and exalt the position of a class of men than whom none are more hard-worked or less paid.

But even if the bill is passed, so much will at first have to be learnt entirely from experience that I cannot help thinking that good service would accrue if, through your pages, the ideas and opinions of some of our ablest Union Medical officers on the advantages and disadvantages of the scheme in itself, and also on the difficulties likely to arise in its working, and the modes of obviating them, could be gained. No one in a parish (at any rate, a country one), is more conversant with the feelings, habits, and tempers of the poor than the parish Doctor, and by him I think it cannot be doubted that suggestions may be thrown out which may prove serviceable to those who, in their attempts to establish for the poor so useful and provident, so secure and facile a scheme as the one alluded to, will of course be only too glad to receive hints from every likely quarter. The system adopted by the industrial assurance offices, their dealings with the poor man who from incaution or poverty, or migration, or casualties of various kinds, has been unable to pay his premium for a short time are so obvious (being in plain words downright robbery, or, as Mr. Gladstone says, "confiscation united with concealment") to any right-minded person, that I cannot refrain from asking you, as a Medical journalist, to raise your voice against it on this opportunity, to urge the reading of Mr. Gladstone's oration, or to invite discussion in your periodical by those of your readers (so many as they doubtless are) whose opinion must be invaluable on such a subject. I am, &c.

London, March 8. Pro-Pauperibus.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 1.

Mr. Partridge, President.

ANNUAL MEETING.

At the commencement of the meeting, the President declared the ballot open for the election of the officers and council for the ensuing year, and nominated Dr. Kirkes and Mr. C. H. Moore as scrutineers.

The Reports of the Treasurers and of the President and Council were then read in succession. From the former, it appeared that the Society was in an increasingly prosperous condition. The total ordinary income of the year had been £1352 12s. 9d., which, with the amount of composition fees, £43 1s., and a balance from the previous year's account of £357 19s. 9d., gave a total of £1753 13s.6d.; and against this sum the ordinary expenditure, inclusive of £181 14s. 6d. on the library, and £202 16s. 3d. on the *Transactions*, etc., was £985 5s.; the extraordinary expenditure (for alteration in the meeting-room, etc.), £34 7s. 7d., and the sum of £500 13s. 9d. purchased into the funds; leaving a balance of £233 7s. 2d. in the treasurers' hands. It will thus be seen that the total receipts of the Society for the last two years had exceeded its expenditure by about £700.

Mr. Arnott moved, and Dr. Webster seconded the adoption of the report.

Dr. Webster said that, from the statement just exhibited, it appeared that the Society's rent amounted to £1 2s. 10d. only.

The Report of the President and Council stated that the total number of Fellows was 634—a slightly smaller number than in the previous report; but this was accounted for principally by the large number of deaths (16) which had occurred amongst the Fellows. The report referred in detail to the steps which had been taken by the Council since the last general meeting relative to the ventilation of the meeting-room, its appointment of a committee on the subject, and their recommendations. A portion of these only, owing to insufficiency of time during the ordinary closure of the library in the autumn, had been carried out, consisting of a window over the entrance door of the room, and an apparatus for opening a portion of the skylight, by which it was believed a great improvement in the ventilation of the room had been effected at a small cost. The report also stated that 323 new works, exclusive of periodical publications, had been added to the library; and also referred to the munificent donation of Mr. Soden, of Bath, of the collection of Medical portraits formed by his late father, Mr. John Smith Soden. Other portraits had since been presented by Fellows of the Society; and in consequence of a letter from Mr. Propert, as executor of the late Mr. Squibb, and on the recommendation of the Library Committee, the Council had resolved to offer £70 for Mr. Squibb's well-known collection—subject to the confirmation of the annual meeting. If purchased, the Society would possess a collection of considerably above 2000 engraved Medical portraits, some of which were of great rarity and

value. The report also referred to the photographic collection of portraits of Fellows of the Society in continuation of the above, and the collection of pathological photographs, further contributions to which were much desired by the Council. The committee appointed by the Council "On the Uses and Effects of Chloroform," were unable to conclude their labours last year; but their report would now shortly be presented to the Society, and would be published in the next volume of the *Transactions*.

Mr. Cæsar Hawkins moved, and Dr. Barker seconded, the adoption of the report.

Dr. Greenhow remarked on the great improvement in the ventilation of the room. It had been the worst-ventilated room he had known, but now it was perfectly comfortable and healthful.

Mr. Charles Hawkins thought it would not be advisable to alter the lantern; it would be throwing money away. He hoped the balance would be taken care of, and not be frittered away.

Dr. Webster said that, having taken much interest in the subject of ventilation of the room, he would remark that he quite agreed that it would not be necessary to spend more money on it, as the result already obtained was very good. He thought that, as the Society was a royal Society, there ought to be either a portrait or a bust of her Majesty in the room. It would almost seem that the architect had made the recess behind the President's chair for such a purpose. In all foreign societies it was usual to have a bust of the sovereign, and he suggested that the Royal Medical and Chirurgical Society ought to have one of the Queen.

Mr. Spencer Wells asked if the Council intended to continue the high charges for the use of the room to the Pathological Society. Strong remarks had been made at the meetings of the latter Society on this point, and, as a member of the Royal Medical and Chirurgical Society, he felt ashamed of the extortionate charge. It did not seem fair that this Society should stand rent free by making a high charge to a sister Society. He hoped the Council would act in a more liberal spirit in this matter.

The President said that to double the rent of the two sister Societies (the Pathological and Obstetrical) was not so inconsistent as might appear at a first glance. It ought to be remembered that the Pathological Society was received at first at a mere peppercorn rent, as the funds of that Society were low, and it was well known that the rent was not commensurate with the advantages. Then, again, the question had been unfairly stated. It was not fair to assert that the rent was at the rate of four guineas an hour, as if the hours were consecutive. It was just the difference in engaging the Freemasons' Tavern on thirty occasions for an hour or for thirty hours in succession. Then, the proof that the rent was not too high was this, that the Pathological Society could not obtain rooms at so low a rate in any other part of London. However, he would rather the rent were less than that difficulties should arise betwixt the Societies.

Dr. C. J. B. Williams was glad to hear the President's last remark. It seemed to him (Dr. Williams) that the very fact that the Medico-Chirurgical Society was living rent free was evidence that it mulcts its tenants to a good rate. It was unfair to put pressure on the Pathological Society. The rent at first was moderate, but to double it at once was preposterous. It was now a question whether the Pathological Society could meet the charge consistently with publishing their *Transactions*. Sixty guineas a year was more than the Pathological Society cost the Medical and Chirurgical Society.

Mr. Charles Hawkins thought that the discussion ought to have taken place before the money vote. The words used, "extortionate" and "extraordinary," were, he thought, misapplied. If the Pathological Society were so important and so flourishing as Mr. Spencer Wells had said, it was strange that it could not pay sixty guineas a year. If that Society could get rooms at such a rate elsewhere, they might do so. They had not only the rooms, but gas, and the services of the librarian and other officers. It spoke poorly for the Society to apply *in formâ pauperis*. If it were worth supporting it would be supported, but not at the expense of the Medical and Chirurgical Society. They had the *prestige* of being associated with this Society, and he did not see why they should receive anything in the way of pecuniary assistance. If Mr. Wells wished for an expression of the opinion of the Society, he ought to bring forward a distinct resolution.

Mr. Arnott said that, besides the use of the room, the Pathological Society received, in the way of warming, lighting, etc., considerable advantages. He did not think the rent at all extortionate.

Dr. Barclay said that the item (£196) for wages to the Society's servants had been overlooked, although the Pathological Society had the services of their paid officers. It was felt at the time when the first arrangement was made that it was a peppercorn rent, and that they were scarcely acting fairly to themselves. When all the advantages were considered, he thought it would be admitted that sixty guineas was a low rent.

Dr. Barker said it was a mistake to suppose that they lived rent free, as the Society had spent at least £1000 in the lease and in alterations.

ADDRESS.

The President commenced his address by advocating the expediency, for communities as well as for individuals, of an occasional retrospect of the past, with a view to the guidance of the future; to ascertain whether progress had been commensurate with opportunities, or whether there had not been seasons of indolence and inaction, the causes of which might be avoided in future. He reminded the meeting that the Medical and Chirurgical Society, like the "Royal," had its origin in a private meeting of a few scientific persons anxious for the promotion of knowledge, who held a preliminary meeting at the Freemasons' Tavern in May, 1805, and (after the organisation of the Society) a first ordinary meeting in the December of the same year. The Society's first place of meeting was in Verulam-buildings, Gray's-inn, then successively at two houses in Lincoln's-inn-fields, where it continued until its removal to Berners-street in 1835, in consequence (amongst other reasons) of its having been ascertained that a very large proportion of its resident fellows lived west of the former locality. The first President, in 1805, was Dr. Wm. Sanders, and the first volume of the *Transactions* was published in 1809, under the presidency of Dr. Matthew Baillie. In 1812 an ineffectual application was made for a charter of incorporation. Its importance, however, was felt to be so essential to the status and stability of the Society that the application was renewed, and a royal charter obtained in 1834. On this occasion the bye-laws and other regulations of the Society were revised and adjusted. During the period of removal, the Society, through the kind liberality of the then President (Dr. Elliotson), held its meetings at his house. The first meeting in Berners-street was on February 10, 1835. Since that time the Society had steadily advanced in reputation and usefulness, revising its laws from time to time, so as to adapt them to circumstances as occasion made it expedient, becoming more just and liberal in some of its regulations, adding largely to its magnificent library, and of late increasing its utility by the frequent publication of abstracts of its *Proceedings*; and finally, by instituting, from amongst its Fellows, committees for the investigation of certain subjects of great general importance to the Profession, such as the "Committee on Suspended Animation," and that on "The Uses and Effects of Chloroform," the report of which is nearly completed. The success of the labours of the Society is attested by the publication of forty-six volumes of its *Transactions*, forming a standard work of reference on the most important topics which have engaged the attention of the Profession during the last half century, and by the formation of one of the largest and best-managed circulating libraries of Medical books in the kingdom. Still (added the President) there remain great objects to accomplish, and foremost amongst them, the acquisition of a permanent residence, either in the shape of a freehold house, with some architectural pretensions as a public building, or of apartments in Burlington House, in association with other scientific bodies. This Society might fairly look for the favourable consideration of the Government in this matter from the advanced position which it holds amongst the other Medical societies of this country, from its royal charter, and from the peculiar means which it possesses of conducting investigations of public utility upon Medical and sanitary subjects. The President then called the attention of the meeting to the very fine collection of Medical portraits and autographs now in possession of the Society, comprised—1st, in the Soden collection, recently presented by Mr. J. Soden, of Bath; and 2ndly, by the purchase of Mr. Squibb's collection, just sanctioned by the present general meeting; both together forming a collection unrivalled by any in the kingdom. Notice was also taken of the rapidly-forming series of photographs, commenced by Dr. H. G. Wright, of pathological specimens, and the Fellows were urged to contribute to these collections as opportunities offered. He then approached the painful subject of the losses sustained by the Society during the past year

in the deaths of sixteen of its Fellows. This number, though double the average of the last ten years, was yet nearly equalled in two former years, and exceeded in two others of the same period (ten years). The President gave a short memorial of each of these sixteen Fellows; but it would be impossible in this abstract to do more than allude very briefly to some of them. Amongst provincial Fellows, Mr. J. S. Soden, of Bath, Mr. Wm. J. Wickham, of Winchester, as Hospital Surgeons; Dr. Edward Stephens, of Manchester, as an anatomist and teacher; and Dr. Carter, of Deal, as a Physician in extensive practice, were the most conspicuous. Amongst resident Fellows, Mr. Henry Ancell, as a gentleman largely engaged in general practice, a man of much ability as well as of laborious research and learning, as is shown by his works on "Tuberculosis," on the "Physiology and Pathology of the Blood," and by his unpublished treatise on "Poisons of the Blood." On Mr. J. H. Green he passed a high eulogium, commenting on the great position which he held in the Profession and in the governing bodies and Professional societies of the country; upon his high, chivalric, and truly Christian character, his eloquence, and his extensive and varied learning. He thought Mr. Green's reputation would increase with time, and he alluded to the long and laborious years of study which he had given to the completion of a "System of Spiritual Philosophy," originated by Coleridge. It will interest every educated mind to know that there is a prospect of the speedy publication of this posthumous work, the result of Mr. Green's life labour. Amongst the younger Fellows, the President especially noticed Dr. Edw. R. Harvey, Registrar of St. George's Hospital, as one who, already distinguished by his researches in physiological chemistry, promised, had he lived, to have left a mark on his generation. Mr. Thos. Davis and Mr. H. C. Johnson were noticed as gentlemen who, each in his time, had enjoyed large practices, and who, without having contributed to the literature of their profession, were, nevertheless, remarkable as skilful surgeons, possessing in a wonderful degree the confidence of their patients. Finally, he deplored, as a loss to the scientific world, a foreign honorary Fellow, in the person of Professor Vrolik, of Amsterdam, whose works on the Chimpanzee, on Embryology, Teratology, etc., etc., are so universally known and esteemed, and whose reputation seemed hereditary. His noble museum, collected by his father and himself, was always open to the scientific foreigner, and his genial manner and knowledge of our language were particularly agreeable to our own travelling countrymen.

At the conclusion of the address, the best thanks of the meeting to the President were moved by Mr. FERGUSSON, seconded by Dr. WEGG, and carried by acclamation.

It was also moved by Dr. C. J. B. WILLIAMS, seconded by Mr. DIXON, and carried unanimously,—"That the cordial thanks of the Society be given to the retiring Secretary, Dr. Sieveking, for his valuable and zealous services during the time he had been in office; and also to the retiring Members of Council—Dr. Hodgkin (Vice-President), Dr. West (Vice-President), Dr. Cotton, Dr. Gream, Dr. Geo. Johnson, Mr. Holt, and Mr. Holthouse."

Dr. SIEVEKING returned thanks for the honour done him.

The result of the ballot for Officers and Council for 1864-65 was then announced by the President as follows:—President: Mr. Partridge. Vice-Presidents: Dr. A. Farre, Dr. Basham, Mr. Hilton, and Mr. Fergusson. Treasurers: Dr. Pitman and Mr. J. Dixon. Secretaries: Dr. H. W. Fuller and Mr. John Birkett. Librarians: Dr. A. P. Stewart and Mr. Henry Lee. Other Members of Council: Dr. Goodfellow, Dr. Gull, Dr. W. Jenner, Dr. Meryon, Dr. Sibson, Mr. Holmes Coote, Mr. G. V. Ellis, Mr. C. H. Moore, Mr. E. Newton, and Mr. Toynbee.

NEW CASE OF OVARIOTOMY IN FRANCE.—M. Lacroix, Surgeon of the Beziers' Hospital, South of France, announces another successful case of ovariotomy. The subject was a labouring woman, aged 32, who consulted Dr. Lacroix in April, 1863, on account of a tumour of the abdomen, her health having been hitherto good. Repeated tappings were followed by only short ameliorations, and the woman's powers failing, it was resolved to have recourse to the operation October 24. A large quantity of fluid was discharged during the operation (the details of which are given in the *Bullet. de Therapeutique*, February 29), and the tumour when removed weighed 3780 grammes. At the period of reporting the case, more than three months had passed, and the woman was able to work in the fields without inconvenience.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, March 3, 1864:—

John Powdrell, Farndon, near Chester; Edward Sidney Lloyd, Pill, near Bristol.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ANDREW, JAMES, M.D., has been elected Assistant-Physician to St. Bartholomew's Hospital.

BROWN, D. DYCE, M.D. Aberd., has been appointed Resident Surgeon-Accoucheur to the Birmingham General Dispensary.

COOPER, THOMAS J., M.R.C.S. Eng., has been appointed Visiting Medical Officer for the Northern district of the Brighton and Hove Dispensary.

RICHARDS, DAVID, M.R.C.S. Eng., has been elected Medical Officer to the Industrial Schools and Workhouse at Brighton.

SMITH, THOMAS, F.R.C.S. Eng., has been elected Assistant-Surgeon to St. Bartholomew's Hospital.

SQUIRE, BALMANNO, M.B., F.L.S., has been appointed one of the Lecturers at St. Mary's Hospital Medical School.

WALLACE, ALEXANDER, M.D. Oxon., has been elected Physician to the Essex and Colchester Hospital.

WILLIAMS, WYNN, M.D. St. And., has been elected Physician-Accoucheur and Physician for diseases of women and children to the Western General Dispensary, Marylebone-road.

DEATHS.

BLACK, THOMAS, L.R.C.S. Edin., at Anstruther, Easter, Fifeshire, on February 29.

BUSH, G. F., M.R.C.S., suddenly, of disease of the heart, at his residence, Hardy-street, Nelson, New Zealand, aged 60.

CARLYON, CLEMENT, M.D. Cantab., at Truro, Cornwall, on March 5, aged 87.

COTTON, THOMAS ARTHUR, M.D., on February 29, aged 71.

COWAN, WILLIAM D., L.R.C.P. Edin., at High-street, Musselburgh. N.B., on February 25, aged 25.

HEAZLE, THOMAS, L.R.C.S. Edin., late Staff Assistant-Surgeon Army, Burgersdorf, Cape of Good Hope, on November 22.

JOHNSTON, FRANCIS G., M.R.C.S. Eng., at Belfast, on February 18, late of Charlton, Kent.

LANDOUZY, Professor, Director of the Medical School at Rheims, and well known to the Profession by his numerous investigations concerning Pellagra, died on March 1, while still in the prime of life.

MASON, GEORGE, M.R.C.S. Eng., at 8, Broad-street, Deal, on March 2, aged 50.

MORRISON, JAMES G., M.R.C.S. Eng., of 121, Edgware-road, W., on February 19, aged 59.

TRANT, LEONARD, F.R.C.S.I., at 18, Upper Pembroke-street, Dublin, on March 1, aged 66.

ROYAL COLLEGE OF SURGEONS.—At a special meeting of the Court of Examiners on the 3rd inst., Mr. James Alexander Grant, of Ottawa, Canada West, having undergone the necessary examination, was admitted a Member of the College; this gentleman had previously been admitted a Doctor of Medicine of McGill College, Montreal, his diploma bearing date May 4, 1854. The next primary or anatomical examination for the diploma of membership will take place on the 9th, 16th, and 30th proximo respectively; and the Surgical, or pass examination on April 23 and May 7. The preliminary examination for the Fellowship will commence on April 26, and the Professional examination on May 31.

"THE MEDICAL REGISTER."—This annual production of the General Council of Medical Education and Registration has just appeared, and our readers will no doubt be surprised to learn how liberally her Majesty's Government subscribe to the work, taking nearly 2000 copies for gratuitous distribution in the United Kingdom. To public officers and functionaries in England, 1027 are presented; to Ireland, 662; and to Scotland, 289: making a total of 1978. From an analysis of the returns to Parliament of the receipts and expenditure of the General Council during the past year, it appears that the sale of "Registers" produced for the United Kingdom £317 14s. The total receipts for fees, dividends, &c., amounted to £7243 5s., and the expenditure to £4800 14s. 7d.; leaving a balance at the bankers on account of the Branch Council for England of £2071 3s. 2d., and an account of the Branch Council for Scotland of £455 17s. 5d.;

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and deducting £84 10s. 2d. on account of the Branch Council for Ireland, there appears a balance in hand of £2442 10s. 5d. The fees paid to members for attendance at General Council and Committees, with the travelling expenses, amounted to to £1693 13s. For hotel expenses £176 8s. is put down.

THE BRITISH PHARMACOPŒIA.—We understand that at their meeting on Monday last the Branch Medical Council (Ireland), in accordance with the recommendations contained in a Report of the General Pharmacopœia Committee, confirmed by the General Medical Council, unanimously appointed Dr. W. D. Moore, M.R.I.A., to observe the progress of pharmacy, and to report thereon from month to month to the Branch Council.

THE ACTIVE PRINCIPLE OF THE CALABAR BEAN.—Two German chemists, Jobst and Hesse, of Stuttgart, have by their researches determined that this is exclusively contained in the cotyledons. They have obtained it by dissolving in ether the residue left by evaporation of an alcoholic solution. The ether solution, in its turn evaporated, leaves the active principle of the bean, which these chemists propose to call *physostygmine*, from the botanical name of the plant, *physostygma venenosa*. It has, however, been suggested that *calabasine* would be as appropriate, and a far more convenient name. Two drops of an aqueous solution of the alkaloid in ten minutes caused contraction of the pupil to about a twentieth of its diameter, it remaining in this state during an hour, and recovering its normal condition in from four to six hours. Taken internally, the *physostygmine* is as poisonous a substance as the most dangerous cyanides.

PRIZE QUESTIONS OF THE BELGIAN ACADEMY OF MEDICINE.—1. A medal of 1500 francs for the best essay on "A demonstration of the formation of the globules of the blood by new researches and a critical examination of existing works."—(June 15, 1864.) 2. A medal of 800 francs. "The history of glycosuria, with especial relation to the causes, nature, and treatment of the disease."—(April 1, 1865.) 3. A medal of 300 francs. "Exhibit by observations and experiment the effects of the use and abuse of tobacco in healthy man."—(July 1, 1865.) 4. A medal of 500 francs. "State the characters of the disease known as carbuncular (*typhus charbonneux*) which attacks the domestic animals, indicating its causes, the therapeutical procedures, and those calculated to prevent its development."—(April 1, 1866.) 5. A medal of 500 francs. "The chemical history of digitaline, with new researches as to its distinctive characters and composition. A simple and easy procedure for its extraction which shall furnish a constant and definite product."—(April 1, 1866.) The memoirs, written in French, Flemish, or Latin, to be forwarded to the Secretary, Place du Musée, Bruxelles, by the above dates.

MUNIFICENCE.—Mr. J. Moritz Oppenheim, of New Cannon-street, City, lately deceased, and whose will has just been proved in London under £250,000 personalty in Great Britain only, has bequeathed £100 to each of the following Medical charities in this metropolis, viz. :—The London Opthalmic Institution, the Royal Free Hospital, St. Thomas's Hospital, and any Hospital in Hamburg which his executors may select. Another act of munificence has to be recorded on the part of Mr. Howard, of Stanley, near Perth, who has vested in the hands of trustees no less than sixteen acres of land, whereon to erect an Infirmary, to be called the Howard Institution. This gift is valued at £1000 per acre, representing a total of £16,000, and the land not necessarily required for the institution is to be let for building sites, and the proceeds to go towards the endowment of the Howard Infirmary.

ALLEGED VIOLENT DEATHS IN A WORKHOUSE.—The *Liverpool Mercury* of February 25th contains an account of two inquests held on pauper lunatics who have lately died in Toxteth-park Workhouse. One of them, who was paralysed and imbecile, died from mortification of the feet following the application of a pan of hot water. The pan was applied by an assistant, who was himself one of the sick inmates of the ward. The other case was that of a pauper lunatic, aged 71, who died from injuries inflicted by another lunatic. From the evidence adduced it appears that the attendance and nursing in the sick and lunatic wards in the Toxteth Workhouse might be greatly improved. There are no regular nurses, but their place is supplied by the convalescent paupers. The jury, in their verdict, animadverted strongly on what they considered the gross mismanagement at the workhouse.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Buchanan.—We do not know.

An Associate of Boards.—The papers appeared in the *Dublin Medical Press.*

Mr. C. Stevenson.—The greater part of the article was original. We do not recollect, after this lapse of time, from what report the paragraphs printed with inverted commas were taken.

The letter of Mr. Robert Ellis on the "New Instrument for Dilating the Cervix Uteri" is in type, and shall appear next week.

Medical Society of London.—The secretaries of this Society are authorised by the Council to state that the report contained in a letter from a fellow of the Society, published in the *Medical Times and Gazette* of March 5, that the Medical Society is about to remove from its present quarters, is without foundation.

E. C. B.—Write to Dr. John Edward Morgan, 3, Gore-street, Manchester, Hon. Sec. to the Manchester and Salford Sanitary Association. There is now no weekly publication of the *health* of London, save the Registrar-General's invaluable *Weekly Return* of the deaths. This may be had through any bookseller for 1½d. per week. The London Medical Officers of Health used to issue a return of sickness, but it was given up because of the expense. Returns cannot be depended on, as a rule, if they are to be collected from voluntary contributors; they must be got from paid officials, who give them as a matter of duty, not of favour.

Curious Advertisement.—In the *Gazette des Hopitaux* of March 3, appears the following singular notice. As neither the address of the Messrs. Pratt nor the direction given (probably a mis-print), appear in the "Post-office Directory," perhaps some of our readers may be able to explain the matter:—

"Students in Medicine of the second and third year, and Students in Pharmacy, provided with certificates of two years' study, are now wanted in England. They will be paid by their respective Hospitals. Address, post free, to Messrs. Pratt and Sons, 1, Russell-street, Camberwell New-road, London."

Poor-law Medical Reform Association.—Mr. Griffin begs us to announce that, within the last few days, he has received the following subscriptions in aid of the funds of the Association:—

Horton, H., West Bromwich, 5s.; Reid, R. B., West Derby, £1; Jardine, J. L., Dorking, 10s.; Gage, W. T., Williton, 10s.; Brettet, T., Watford, 10s.; Hubert, W. A., Hemel Hempstead, 10s.; Perry, C. H., Aylsham, 10s.; Black, W. S., Freebridge, Lynn, 10s.; Brewer, J., Newport, £1; Phillips, G. M., Hitchin, 7s. 6d.; Hair, J., Sudbury, 2s. 6d.; Brine, J. E., Shaftesbury, £1 1s.: Bennett, W. H. R., Shaftesbury, £1 1s.; Miles, E. J., Shaftesbury, £1 1s.; Griffin, R., Weymouth, £1 1s.; Blenkinsop, W. H., Easthampstead, 10s.; Smith, H. B., Ticehurst, 7s. 6d.; Clouting, J., Mitford and Launditch, 10s.

A CORRECTION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your report of a petrous bone presented to the Pathological Society on the 2nd February by Mr. Hinton, for Mr. Toynbee, the name of the Surgeon of the *Cumberland* is incorrectly given. Instead of Mr. Lacy, it should be the name of your humble servant.

I am, &c. WM. LONEY, Staff-Surgeon, R.N.,
H.M.S. *Cumberland*, Sheerness.

RETIREMENT IN THE ARMY MEDICAL SERVICE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your last able article on the Army Medical Department, you advocate an earlier retirement as necessitating a more rapid promotion from the rank of Assistant-Surgeon. Will you allow me to suggest that what is required is not an earlier, but a better, retirement for Surgeons-Major, who must always constitute the very large majority of retired Medical officers.

Surgeons-Major of twenty-five years' service are of course unwilling to retire upon a bare pittance of 18s. 6d. a-day, thus sacrificing in difference of pay and allowances upwards of £200 a-year, and giving up all hope, however remote, of attaining a higher rank; but give them the retiring allowance, as well as the empty title of "Deputy Inspector-General," and they may probably be induced to make room for the rising generation.

I am, &c. MEDICUS.

NIGHT AIR.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I beg to thank you for publishing my letter on night air. The following is a brief description of my mode of obtaining pure air in a bedroom at night:—

A tin tube, one inch in diameter, and open at both ends, has one end inserted in a hole in the window-frame at the top, communicating directly with the external air, and the other end bent at right angles, so that the internal opening is at a distance of about two feet from the head of a person lying in bed. The tube is suspended near the ceiling, and carried right across the room, the bed being against a wall at the side of the room opposite to the window. The tube is nearly horizontal, but slightly inclined towards the bed. A paper wheel-anemometer is attached to the internal opening of the tube, which turns with a very delicate current of air. The length of tube allows the air, however cold outside, to attain the same temperature as the general air of the room before it is breathed by the person lying in bed. In this way a gentle current of pure air is kept up all night where it is wanted—namely, close to the mouth. By this method, as far as the experiment yet goes, the sleeper derives the full benefit of fresh air in perhaps the simplest possible manner. The colder the air outside the stronger the current, as a matter of course. My little wheel usually performs about 100 turns per minute. I have a piece of cardboard turning on a pin, by which I can stop the current at any moment without rising in bed, and which answers the purpose of a

stop-cock. I have never felt the slightest draught, the only palpable effect being a delightful freshness in the air.

I am, &c.

Clifton, March 6. WILLIAM C. BURDER.

The New Anæsthetic, Nitrous Oxide.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—A great deal has been written and spoken this year in favour of a new anæsthetic—nitrous oxide—especially among the dentists, where the admirers of balloons and bags for chloroform vapour have been persuaded that this gas is infinitely more safe than chloroform, not one recorded instance of death from the oxide having ever appeared, etc.

It is rather clear, I think, that the danger of anæsthetics is pretty much equal for ether, or chloroform, or amylene, or nitrous oxide, or hydrogen, the danger being in the insensibility it produces rather than the agent producing it, the danger being rather in the want of skill in perceiving signs of danger when they come on, and not stopping, than in any fanciful inferiority of this or that anæsthetic to any other. One death has just occurred in a dentist's chair from the administration of nitrous oxide: it was that of a fine young woman, in perfect health, who was induced to have this anæsthetic rather than chloroform.

I am, &c.

Sackville-street, March 5. CHARLES KIDD, M.D.

The Decline of the Maories.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I was much gratified on noticing a letter in your last number from Mr. Stratford, of Auckland, New Zealand, confirming my observations on the decline of the Maori race. If Mr. Stratford had had an opportunity of reading the whole of my paper, he would have seen that the points he alludes to as having been omitted by me were, on the contrary, particularly noticed, and much stress laid on them.

You will also perceive that Mr. Stratford agrees with me that the settlers, far from wishing the extermination of the natives, only desire their amelioration, and that such a result is considered of the highest importance to the colony. It is merely Exeter Hall cant to characterise the present war as one having its origin in a desire for selfish aggrandisement.

I am, &c. JOHN B. TUKE, M.D.

Royal Edinburgh Asylum for the Insane, March 4.

The London and Provincial Medical Protection Society.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your issue of January 9 I perceived an advertisement of the London and Provincial Medical Protection Society, and I beg to ask a little information on a few points connected with it, if in your power to furnish it.

1st. Does the term "Medical," in speaking of the qualified Medical Practitioners, comprise Physicians only, or are both branches of the Medical Profession included—Physicians and Surgeons?

2nd. Are the means of attaining the end proposed of such a character as to save the Medical man the necessity of appearing in a Court of Justice to secure his fees?

3rd. What are the objects, more precisely, to which the Benevolent Fund is applied?

4th. What is the scale of charges adopted by the Society?

I am, &c. T. T.

Prescribing Druggists.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I have read with much pleasure your leading article on the subject of a proposed "Charter for Chemists and Druggists," and beg to add my testimony to the pernicious effects of "counter practice," as carried on in the town in which I reside. This kind of practice, already very great, as I will presently show, would, I am convinced, increase tenfold were any kind of certificate or license possessed by the offenders, and the result would be a still greater injustice to Medical men, and a manifest injury to the public, who, for the sake of economy (?), would go to the cheapest place for advice,—advice that would be followed up by a large supply of medicine (on which the profit would be made). In 99 cases out of 100 the advice would be bad and the medicine injurious.

In this town there are three so-called chemists and druggists; one is also a grocer and stationer, another is a wine merchant, and the third a seedsman and stationer; neither has the certificate of the Pharmaceutical Society, but they all give (bad) advice—in fact, prescribe, when asked to do so. I know of at least one life sacrificed in consequence: A poor woman applied to one of the above for advice. She was suffering from symptoms of incipient typhus; he gave her eight pills, without any directions or caution as to their strength, &c. She took them all that night, and died three days afterwards from the excessive purging they produced. These pills contained twenty grains of extract of Socotrine aloes, forty grains of jalap, and six grains of calomel! In another case a chemist's assistant applied a large blister to the throat of a young woman suffering from malignant scarlet fever. This patient died from effusion on the brain. If she had not done so, the frightful ulceration which follows the application of blisters in eruptive fevers would have disfigured her for the rest of her life.

It is a very common thing for a poor woman to bring a half-dead child to me suffering from bronchitis or pneumonia, or some other acute disease, and, on inquiry, I find that she has been to Mr. So-and-So, the druggist, who "will not go any farther, as he thinks the case is beyond his skill." It is then, in many cases, too late for any skill to be of service. No doubt the experience of nearly every country Practitioner will coincide with my own in this respect.

In the face of such facts as these, it seems to me to be the duty of every Member of Parliament, and every member of the Medical Profession, to oppose to the utmost any attempt to give a legal or official sanction to such practices, for such, in effect, would be the result of granting a charter to these tradesmen.

Legislation is wanted to put a stop altogether to what is called "counter practice." There is a sad want of comprehensiveness about the Medical Act if it permits an unqualified and ignorant person to evade it daily and hourly by the miserable deception of charging only for medicine, when, at the same time, that medicine is concocted in the undiagnostic brain of the compounder. The Medical men of the present day are too well educated to require the "supervising care" so kindly offered by the druggists. Let druggists know how to read prescriptions accurately, prepare them carefully, write the directions legibly, and take care to put in all the ingredients prescribed (including the expensive ones), and no "charter" will elevate them in the eyes of the Medical Profession, or the enlightened portion of the public.

I am, &c.

A COUNTRY DOCTOR.

COMMUNICATIONS have been received from—

DR. BUCHANAN; Mr. T. HOLMES; HARVEIAN SOCIETY OF LONDON; A COUNTRY DOCTOR; Mr. ROBERT ELLIS; Mr. R. GRIFFIN; Mr. HENRY THOMPSON; Mr. JOHN GAMGEE; Dr. RAMSKILL; Dr. OGLE; Mr. C. GODFREY; THE MEDICAL SOCIETY OF LONDON; MEDICUS; Dr. CHARLES KIDD; Mr. W. LONEY, R.N.; APOTHECARIES' HALL; Mr. WILLIAM C. BURDER; Dr. JOHN B. TUKE; Dr. O'VON FRANQUE; Dr. A. WAHLTUCH; AN ARMY SURGEON; Mr. ROBERT ELLIS; AN EX-ASSISTANT SURGEON; Mr. T. J. COOPER.

BOOKS RECEIVED.

British Journal of Dental Science. February, 1864. London: John Churchill and Sons.

Elements of Physics, or Natural Philosophy, Sixth Edition, Part I. By Neil Arnott, M.D., F.R.S. London: Longman and Co. 1864.

Buffalo Medical and Surgical Journal. January, 1864.

Phthisis and the Stethoscope: or, the Physical Signs of Consumption. By Richard P. Cotton, M.D. Third Edition. London: John Churchill and Sons. 1864.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 5, 1864.

BIRTHS.

Births of Boys, 1020; Girls, 1019; Total, 2139.
Average of 10 corresponding weeks, 1854-63, 1883·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	910	856	1766
Average of the ten years 1854-63	654·3	636·6	1290·9
Average corrected to increased population..	..	..	1420
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	2	1	12	3	10	13	4
North ..	618,210	5	6	11	5	14	15	2
Central ..	378,058	2	7	8	1	8	10	2
East ..	571,158	1	4	12	1	21	13	1
South ..	773,175	3	11	22	1	24	21	5
Total ..	2,803,989	13	29	65	11	77	72	14

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·487 in.
Mean temperature	40·9
Highest point of thermometer	58
Lowest point of thermometer	29·4
Mean dew-point temperature	39·9
General direction of wind	Variable.
Whole amount of rain in the week	0·65 in.

APPOINTMENTS FOR THE WEEK.

March 12. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Professor Frankland, "On the Metallic Elements."

14. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Clinical Discussion.

15. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ANTHROPOLOGICAL SOCIETY OF LONDON, 8 p.m. Meeting.

PATHOLOGICAL SOCIETY, 8 p.m. Meeting.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, 8 p.m. Dr. Grailly Hewitt, "Clinical Conference in Midwifery."

16. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m., Middlesex, 1 p.m.; London, 2 p.m.

17. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m., Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.

HARVEIAN SOCIETY OF LONDON, 8 p.m. Mr. Camps, "On Some Points in the Pathology of Convulsive Diseases."

18. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

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BARTH'S OXYGEN WATER holds free Oxygen in solution. It gently stimulates the functional action of the stomach and secretory organs, and is a very useful beverage. WENTWORTH SCOTT'S Analysis gives as contents of a bottle—"Nearly half an imperial pint of pure distilled water, and about 13·5 cubic inches, or 4·6 grains of gaseous oxygen; equivalent to that contained in 21·4 grains of chlorate of potash." 4s. per dozen.
OXYGENATED WATER COMPANY (LIMITED), 36, LONG-ACRE.

Pulvis Jacobi ver, Newbery's,
FRAS. NEWBERY & SONS, 45, ST. PAUL'S CHURCHYARD.

CHLORODYNE CHANCERY SUIT.

JANUARY 11th, 1864.

BROWNE AND DAVENPORT versus FREEMAN.

"It was fully proved and established in Court, before Vice-Chancellor Sir W. P. Wood, that Dr. John Collis Browne was the Discoverer of Chlorodyne.

"The Vice-Chancellor observed that Dr. J. Collis Browne's Chlorodyne was known before the Defendant 'Freeman' had ever thought of using the word; that the Defendant's conduct led to a very strong suspicion that there was a gradual course of proceeding on his part to mislead people into the belief that, when they bought his medicine, they were purchasing Dr. J. Collis Browne's Chlorodyne; and that, if the Plaintiffs could show that any one had actually been deceived, an Injunction would be granted."—*Times*, January 12.

Affidavits from eminent Physicians and Surgeons of the Metropolitan Hospitals proved, beyond doubt, that Dr. J. Collis Browne was the discoverer of Chlorodyne; that they prescribe it largely, and invariably mean the original Chlorodyne of Dr. J. Collis Browne.

An Affidavit by Mr. Warington, Chemical Operator to the Apothecaries' Company of London, also established the fact, that Dr. Browne was the inventor of Chlorodyne; that the Company receive large orders for the supply of Chlorodyne for the Public Service, Hospitals, Merchants, and the Profession; and that, when Chlorodyne is ordered, they invariably supply Dr. J. C. Browne's.

Affidavits from Messrs. John Bell, Pharmaceutical Chemists, 338, Oxford-street, and several leading Wholesale Druggists of London, to the same effect, and that, when Chlorodyne is ordered, they invariably supply Dr. J. Collis Browne's.

Sole Manufacturer—J. T. DAVENPORT, 33, Great Russell-street, Bloomsbury, London.

In Bottles, 1 oz, 3s.; 2 oz., 5s.; 4 oz., 8s.; 10 oz., 15s.

Neither Physician nor Surgeon in plaintiff's suit even mentioned Freeman's compound; so much for the *truth* of its being the *preferred* medicine, as stated by the defendant. It is equally untrue that the Vice-Chancellor intimated in the slightest degree that the defendant had the right to the sole use of the prefix Original, as quoted in his advertisement in the "Pharmaceutical Journal," March 1, 1864.

The observations of the Vice-Chancellor, as reported in the "Times," speak for themselves.

Each Affidavit from Physicians, Surgeons, and Chemists affirms that Dr. Browne's Chlorodyne was known to them in 1855; whereas the Defendant "Freeman's" Compound was not heard of until 1859, after the Original Chlorodyne had obtained world-wide fame.

TOWLE'S CHLORODYNE.

OF KNOWN COMPOSITION.
For Formula, &c., see back Numbers.

Extract of Letter from Dr. C. KIDD (Author of Standard Works on Chloroform).—"SIR,— . . . Of the value of Chloroform given internally I have no doubt; it appears to me in that form an anodyne, *sui generis*, that no other anodyne can approach. I have resolutely opposed the use of secret compounds of chloroform, and in every way I can encourage the use of the 'Chlorodyne' (if we must have it at all) that is made by you, as you state that its composition is known. Many Medical men think with me, and recommend your compound, but will never prescribe a secret remedy.—CHAS. KIDD, M.D.—Sackville-street, Piccadilly, London, April, 1862.—To Mr. A. P. Towle."

Extract of Letter from ALFRED ASPLAND, Esq., F.R.C.S. Eng., J. P. Chester and Lancaster, Surgeon 4th Cheshire Batt. V.R., Surgeon to the Ashton Infirmary.—"After an extensive trial of your Chlorodyne in Hospital, Infirmary, and Private Practice, I am able to state that it is a valuable medicine. I have found its action peculiarly serviceable in Bronchial, Spasmodic, and Neuralgic Affections. I have never found it produce headache or feverish disturbance, results which not unfrequently occur from other forms of Chlorodyne. As a sedative to allay excitement arising from the abuse of intoxicating drinks, so commonly witnessed in our Barrack Hospital, I have been perfectly satisfied with it. Its known composition will doubtless prove an additional recommendation to the Profession.—To Mr. A. P. Towle."

Sold by Wholesale Houses in bottles, 1 oz., 1s. 6d.; 2 oz., 2s. 6d.; 4 oz., 4s.; and 8 oz., 8s.

SOLE MANUFACTURER—A. P. TOWLE, CHEMIST, &c., 99, STOCKPORT-ROAD, MANCHESTER.

LIQ. CHLOROFORMI CO. (TOWLE'S).

This preparation is identical with "Towle's Chlorodyne," *sine* Ol. Menth. Pip. (dose 5 to 20 minims, as in Chlorodyne).

The Proprietor having for some time past, at the request of several members of the Medical Profession, made a preparation of Chlorodyne without peppermint, has lately, on account of the frequency of these demands, prepared the same for more general use, under the designation of LIQUOR CHLOROFORMI CO., which, possessing the Medical properties of Chlorodyne, may be prescribed in all cases where the Ol. Menth. Pip. is disapproved, and overcome the objection so generally felt to the use of the term "Chlorodyne."

May be obtained, as an introduction, from the following Wholesale Houses, in 2 and 4 oz. bottles, at 2s. 6d. and 4s. each:—London: Barclay and Sons, 95, Farringdon-street. Birmingham: Southall, Son, and Dymond. Liverpool: Clay, Dod, and Case. Edinburgh: Duncan, Flockhart, and Co. Glasgow: The Apothecaries' Company. Dublin: Bewley, Hamilton, and Co. Manchester: Jas. Woolley; and the

Proprietor—A. P. TOWLE, 99, STOCKPORT-ROAD, MANCHESTER.

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ORIGINAL LECTURES.

LECTURES ON THE BRITISH PHARMACOPŒIA: ITS CONSTRUCTION, ITS COMPARISON WITH THE LONDON PHARMACOPŒIA, AND THE VALUE OF ITS NEW REMEDIES IN THE TREATMENT OF DISEASE.

DELIVERED AT

The Royal College of Physicians,

By A. B. GARROD, M.D., F.R.S.,

Fellow of the Royal College of Physicians: Physician to King's College Hospital.

LECTURE V.,(a) FEBRUARY 9.

(Continued from page 277.)

MR. PRESIDENT,—The early commencement this year of the season of Lent compels me to complete my subject during this Lecture, and the obligation thus imposed upon me to condense matter originally designed to occupy the time of six Lectures into five, obliges me to curtail my observations upon some subjects which I had intended to treat at greater length. I will therefore, select more especially matter upon which I have to offer something that, I trust, will be of interest, and subjects which I have more particularly investigated myself, and upon which, therefore, I feel some little confidence in speaking; leaving it to yourselves, if you desire a practical knowledge of the work, to fill up the many details which I shall be obliged to leave untouched.

In resuming the subject of the new introductions into the British Pharmacopœia, I shall first speak of the Salts of Lithia.

In the list of the Materia Medica will be found two salts of this metal which have only recently been employed as internal medicines. I allude to the Carbonate and Citrate of Lithia. In speaking of these salts, I feel some little hesitation, having been instrumental in introducing them to the Profession as remedies in certain forms of disease, and it might, perhaps, be thought that it was from my own advocacy of their merits that they have been now made officinal. With regard to their introduction into the British Pharmacopœia, I may be permitted to say thus much—namely, that they were proposed neither by myself nor any member of the London Committee, and if they are found valuable additions to the Materia Medica the merit of their introduction will be due to others.

As they are now placed in the Pharmacopœia, it may, perhaps, be well that I should give you a short summary of their properties and therapeutic value.

The metal lithium (so named from λιθος, a stone, as it was supposed to exist only in the mineral kingdom) has somewhat remarkable properties. In the first place, it is the lightest known solid—lighter even than any liquid, as you will perceive in this specimen, in which the wire is seen floating on Persian naptha. Secondly, it possesses a very small atomic or equivalent weight, being only 7 on the hydrogen scale, whereas the equivalent weights of the other alkaline metals, Sodium and Potassium, are respectively 23 and 39 on the same scale; the saturating power, therefore, of Lithia itself is much greater than that of either Soda or Potash.

Thirdly, Another peculiarity of Lithia consists in its forming a salt with uric or lithic acid, much more soluble than those of any other bases; hence in this respect differing from potash, and far more from soda and ammonia.

It follows, therefore, from these facts that not only is a much smaller amount of Lithia sufficient to form a salt with uric acid, but likewise that the salt so formed requires much less fluid to hold it in solution; and hence it would appear that unless other circumstances interfere with their administration, the Lithia salts must be desirable remedies when our object is either to keep uric acid in solution during its transit through the urinary organs, or to prevent its deposition within the structures of the body. The characters of the Carbonate and Citrate of Lithia are seen in the specimens on the table; some of these are very beautiful. The composition is represented in the diagram:—

Carbonate of Lithia—LiO,CO_2.

Citrate of Lithia—$LiO,\overline{Ci}$.

Both salts can be obtained in a crystalline form; the citrate in large crystals. The carbonate is peculiar in being very sparingly soluble in water; the citrate is freely soluble.

From a somewhat extended experience in the use of these salts during a period of five years, I have gathered the following information, which I will condense into a few sentences:—

1stly. Lithia salts are readily absorbed by the stomach, and pass through the kidneys, the carbonate remaining unchanged in its passage; the Citrate of Lithia and the other salts with a vegetable acid, undergo decomposition, and appear in the urine in the form of carbonate of the base.

2ndly. Lithia combined with carbonic acid or a vegetable acid, and given in the form of dilute solution, acts as a powerful diuretic, probably more so than the corresponding salts of potash or soda.

3rd. Lithia salts exert a much more powerful influence upon the condition of the urine, in rendering it neutral or alkaline, than the salts of the other alkaline metals; that is, when given in the same doses.

4th. In certain states of the system, in which urate of soda is liable to be deposited in the tissues, leading to the production of gouty inflammation, the administration of Lithia salts is attended with advantage; probably both by aiding elimination and likewise by assisting the solution of the urate in the animal fluids.

5th. Lithia is not foreign to the system; it has been found by means of spectral analysis in the ash of the blood and flesh, although its amount is extremely minute. When its administration is continued for a lengthened time, no injurious consequences ensue, although we should be guided by the same rules in suspending the use of Lithia as in the case of other alkaline remedies.

6th. The dose of the carbonate may range from three to six grains, of the citrate from five to ten grains; the carbonate may be given in aërated water; free dilution aids its diuretic action.

A drug named Hemidesmus is now introduced into the Pharmacopœia. It is the dried root of Hemidesmus Indicus, and is imported from India, and often called Indian Sarsaparilla.

Only one preparation of this drug has been made officinal, and this is a syrup, Syrupus Hemidesmi. With regard to the therapeutic effects of this plant I fear I can give you but very scanty information. It is believed to possess the same remedial powers as Sarsaparilla, but as even these last are somewhat difficult to define, those of Hemidesmus must be equally so. The syrup has a pleasant flavour and odour, and so much at least can be said for it.

Matica, or Matico, also finds a place in the new Pharmacopœia. It is the leaf of a species of pepper, called Artanthe Elongata, sometimes Piper Angustifolium. It is imported from Peru. The leaf has a somewhat peculiar construction, being tessellated on the upper, and downy on the under surface, with a slightly astringent taste and aromatic odour.

With regard to its composition, little is known that throws light upon its action. Its astringency is but feeble, and the amount of contained Tannin or Gallic Acid small. Possibly it may have an active principle, similar to that contained in other Piperaceous plants. There is only one officinal preparation, an infusion.

With respect to its medicinal powers, I may state that it is said to have proved efficacious, when applied externally, in arresting hæmorrhage, and its value has sometimes been attributed to the peculiar structure of the leaf. This explanation can hardly be looked upon as probable, and is rendered still less so by the fact that its infusion is equally efficacious in arresting hæmorrhage when given as an internal remedy.

In some few instances I have had an opportunity of testing its therapeutic powers, and in some chronic affections of the bladder as well as in hæmorrhage have thought that it proved efficacious. I should not, however, wish to speak positively upon the action of Matico.

Lastly, among the novel introductions, I must say a few words upon certain salts which have now for the first time found a place in an English Pharmacopœia.

Citrate of Potash.—Practitioners have often felt at a loss when desirous of administering this salt in a non-effervescent form from the want of a formula for its preparation, and from its not being kept by many druggists.

Citrate of potash possesses, in some respects, advantages over the other salts of the base. It is more pleasant to the taste, usually sits easily upon the stomach, is more readily

(a) Portions, especially of the latter part, of this Lecture were not delivered from want of time.

absorbed into the system, and hence less liable to purge than many other vegetable salts of potash.

It is a valuable saline febrifuge, increasing the secretions from the kidneys; it is readily decomposed after absorption into the blood, reduced to the condition of a carbonate of the base, and is in this state eliminated in the urine, rendering this fluid less acid or even alkaline in reaction. It is thus an indirect alkaline remedy, although in the stomach it possesses no antacid properties.

The dose is from twenty to 60 grains, and I have frequently given it with much advantage, made as a lemonade, in cases of uric acid gravel and allied diseases. I have also seen its antiscorbutic effects well marked both in the treatment of developed scurvy and likewise when employed as a substitute for vegetables in preventing the occurrence or recurrence of that disease.

Another preparation introduced into the Pharmacopœia is the *Permanganate of Potash*, a crystallised salt, represented by the formula, KO,Mn_2O_7. This substance possesses some remarkable and interesting properties. It dissolves in water, and the solution has a most beautiful pink or purple colour, according to the amount of the contained salt. The permanganate is readily decomposed when in contact with organic substances or others susceptible of oxidation; it is hence a powerful antiseptic agent, and as such can be employed with much advantage in the form of a gargle or lotion to remove decomposing matter and clean diseased surfaces.

The liquor potassæ permanganatis of the Pharmacopœia contains four grains of the salt to each fluid ounce, and as an external application may with advantage be very much diluted, a fluid drachm to five to ten ounces of water being usually sufficiently strong. Permanganate of potash has also been proposed as an internal remedy, from an idea that it possesses the power of oxidating the blood. I know, as yet, of no clinical facts which establish the existence of such a power or of any advantages derived from its exhibition; it has been given in diabetes, with the erroneous idea that the existence of sugar in this disease depends on a want of oxidising power. From my own experience of its effects in diabetes I cannot speak at all favourably of its action; the only change I have witnessed has been the augmentation of the saccharine matter in the urine when the salt has been administered in doses sufficient to produce any appreciable effects.

The last salts to which I shall call your attention are certain preparations of Zinc—namely, the *Carbonate*, *Acetate*, and *Valerianate*.

The pure Carbonate is introduced, and may be used in place of *Calamine*, which is omitted, and which is either an impure carbonate or oxide, according to the heat employed in its preparation. It is seldom used as an internal remedy, but might be employed in the same cases and doses as the oxide.

The *Acetate of Zinc*, $ZnO,C_4H_3O_3+2HO$, is used as an external astringent in place of the sulphate, and is preferred by some. It could also be employed, if desired, as an internal remedy, as a substitute for the sulphate, in doses of one grain and upwards.

The *Valerianate of Zinc*, $ZnO,C_{10}H_9O_3$, although long employed, and in the last edition of the Dublin Pharmacopœia, is now for the first time made officinal in England. Of course it possesses the virtues of a zinc salt, but the interesting point is to ascertain whether it also combines with such virtues those of the Valerian plant likewise. Its mode of formation is somewhat peculiar, and not devoid of interest. Instead of being made from valerian, it is procured from fousel oil, a latter product of the distillation of grain. This so-called oil is, in fact, an alcohol, and called Amylic alcohol, $HO,C_{10}H_{11}O$, which, when oxidated, is converted into valerianic acid, $HO,C_{10}H_9O_3$; hence valerianic acid bears exactly the same relation to amylic alcohol as acetic acid does to ordinary or ethylic alcohol. Valerianic acid is, however, contained in valerian, and is produced from the oxidation of the oil obtained from the root. Some Physicians are of opinion that valerianic acid does not possess the virtues of valerian; others, on the contrary, strongly believe in its powers. I have endeavoured to determine the point, but as yet without having arrived at any satisfactory result. Of course, when administered as valerianate of zinc, it is difficult, if not impossible, in diseases of the nervous system, to separate the effects due to the valerianate acid from those of the zinc; I have therefore avoided this source of fallacy, and given it as valerianate of soda. I must, however, wait for further clinical experience before venturing to decide on the value of valerianic acid as a medicinal agent. The odour and taste of the acid would certainly *à priori* lead us to believe that it possesses the same powers as the plant which contains it.

Valerianate of zinc may be given in doses of one to five grains in hysterical affections, and other more serious diseases of the nervous system, as chorea, epilepsy, headaches, etc.

The salt has been frequently found much adulterated.

(To be continued.)

A CLINICAL LECTURE
DELIVERED AT
ST. THOMAS'S HOSPITAL.

By FREDERICK LE GROS CLARK, F.R.C.S.,
Surgeon to the Hospital.

AMPUTATION BETWEEN THE ASTRAGALUS AND NAVICULAR BONES (CHOPART'S)—RESECTION OF KNEE-JOINT.

F. H., aged 23, a labourer, was admitted on February 25, 1863. About two and a-half years since he began to suffer from pain and swelling in the foot without apparent cause. After a time pus collected, and an abscess was opened; some bone was subsequently removed. When he got better he attempted to work and had a relapse, attended with pain in the loins. During the two months previous to admittance this was accompanied by pain in micturition. When admitted the foot was much swollen, and there were two openings on the dorsum of the foot, through which a probe reached carious and exposed bone, involving, apparently, the navicular and cuneiform bones, and probably the cuboid. His urinary symptoms still continued, and his health was much deteriorated. There was albumen, and occasionally pus, in his urine, and he suffered considerable pain in the loins. Treatment was adopted, with varying success, for the relief of these symptoms, and he was frequently sounded. In June an operation was performed for the relief of the foot. A free incision was made across the tarsus, for the purpose of ascertaining the extent of the disease; but all the tarsus being found more or less extensively involved in front of the astragalus, the disarticulation between that bone and the calx behind, and the navicular and cuboid in front, was completed, and a flap from the sole was obtained to cover the stump; the edges of the wound were connected by metallic sutures. The wound healed kindly without sloughing, and the operation was attended, at first, by much relief to the urinary symptoms. The stump was in every respect satisfactory, being firm and well rounded.

Where the foot is the seat of incurable disease, the question often arises as to which operation is to be preferred. Of course there is one general principle to guide the Surgeon, which is that of sacrificing as little as possible, consistently with the utility of the member. But here are two elements of importance, which it is not always easy to reconcile. The principal operations at and near to the ankle-joint are, amputation through the joint itself, and the modification of this operation introduced by Pirogoff, in which the tuberosity of the os calcis is left, and its sawn surface adapted to the sawn surface of the base of the tibia. Then there is amputation between the astragalus and navicular bone, in which the former bone and the calx are left *in situ*, as in the case I have just narrated. Lastly, the whole foot may be removed, with the exception of the astragalus. Of the last of these operations I may at once remark that I have no experience, having never tried it. As regards the amputation between the astralagus and navicular bone, there can, I apprehend, be no doubt that it is to be preferred where the condition of the bones permits of it; and where any doubt exists on this point, I recommend you to make an exploratory dissection or examination, after you have made your anterior incision, which would permit you to finish your operation in whichever way you may find expedient. Of amputation at the ankle-joint I entertain a high opinion, and think it preferable to that in which the tuberosity of the os calcis is left. In the former the stump is broader and firmer, and therefore better fitted for support; and an artificial foot is more conveniently adapted to it than where the limb retains nearly its full length. Pirogoff's operation is easy of performance, and there is no difficulty in the adaptation of the tuberosity of the heel-bone to the sawn surface of the base of the tibia.

Excision of Knee-Joint.

Case 1.—E. C., aged 25, a widow, was admitted on April 7,

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1863. About fifteen months since she began to suffer pain in the right knee, without any apparent exciting cause. The pain, which gradually increased, was unattended for more than two months with any swelling or redness about the joint, and it did not interfere with her following her occupations, and her general health was unaffected. Increasing stiffness of the joint, especially after sitting for some time, was the chief inconvenience she then complained of, in addition to the pain. At the expiration of two months, when rising from her chair, she was suddenly seized with violent pain, which was rapidly succeeded by swelling and increased heat, and general constitutional disturbance, evinced by loss of appetite, headache, and feverishness. She was almost immediately admitted into an Infirmary, where she remained until she came to the Hospital, the treatment having been painting with iodine and poulticing, with rest. In this interval the disease had gradually gained ground; an abscess was opened about six months before admission on the outside of the knee. The articular extremities of the bones and the entire joint are now much swollen and hot, and extremely tender. There is a sinus on the outside of the knee, which discharges freely. The bones are in good relation, and the limb is nearly straight. The slightest movement causes great suffering. General health feeble; pulse 96; weak; face has a hectic flush.

The patient's general condition being somewhat improved by attention to diet, etc., the operation of excision was performed on April 25, under chloroform. A semilunar flap was raised, by carrying an incision from the back of one condyle to that of the other, across and through the ligamentum patellæ. A considerable quantity of curdy purulent matter escaped as soon as the joint was laid open; this had been harboured chiefly in an abscess extending for some distance up beneath the extensor tendons. On raising the flap, the entire joint was found denuded of cartilage, and there was scarcely any vestige of inter-articular cartilage or ligament; but abundance of infiltrated granulations and disorganised tissue. Disarticulation being readily effected by forcibly flexing the knee, the surface of each bone was sawn off, Butcher's bow-saw being used for the purpose, and worked from behind forwards; the section of the tibia was made horizontally, that of the femur nearly in imitation of the normal form of its articular extremity, as no difficulty was apprehended in replacing the surfaces when the limb was extended; the articular face of the patella was also sawn off. The sawn surfaces were healthy, and bled freely; but very little blood was lost from the soft parts, and not a single vessel required a ligature. Considerable time was expended in carefully dissecting out every particle of diseased texture, and then the surfaces of bone were placed in relation, and the flap was accurately adapted, and fixed with several wire sutures. The limb was placed in a padded splint, and in a straight position, no dressing being used, but the surface of the joint being left exposed. A dose of morphia was ordered at bedtime.

On the following day, there was healthy constitutional reaction. She slept pretty well, and was freer from pain than before the operation. On the third day, the tension of the skin being considerable from the accumulation of inflammatory and serous exudation, a director was introduced into the interior from the inner side, and a considerable quantity of fluid escaped. About two-thirds of the wound were adherent. Spirit lotion, one part in three, was then applied over the surface of the joint. The greater part of the sutures were removed at the end of the first week, the flap being adherent and healed, except at the extremities.

The subsequent course of this case was slow, but satisfactory. Suppuration, to a moderate extent, continued from the outer and inner sides of the joint; but there was no abscess nor accumulation of matter. In October there were still two or three sinuses of some depth, which continued to discharge; but the patient's health was restored, and entire recovery seemed to be simply a question of time. She was subsequently sent to the Sea-bathing Infirmary at Margate.

Case 2.—E. S., aged 18, of strumous appearance, was admitted on March 25, 1863. Her statement was that she had suffered from a severe attack of rheumatism, after which the knee became much swollen, and this enlargement was accompanied by considerable pain. She derived no benefit from the treatment adopted, and, after the lapse of three months, she was brought to the Hospital. She looked delicate and suffering; the knee was swollen, hot, and painful, and the pain was increased by pressure of the articular surfaces together and by motion; the catamenia were suspended, and her appetite was bad. The limb was fixed in a long splint, and she was ordered steel and a nutritious diet. In the middle of May an issue was made on either side of the joint, and some little time after this there seemed to be some amendment. It was, however, only temporary, and the returning suffering in an aggravated form, accompanied by loss of rest, together with the formation of abscess on the outer and upper part of the joint, which was opened without benefit, decided the necessity of undertaking some operation for her relief; and, accordingly, excision was performed on July 18, under chloroform. The operation was commenced by the semilunar incision, and the patella was raised. Disease involved both tibial and femoral surfaces of the joint, which, together with the surface of the patella, were removed. The cartilage was partially destroyed, and subarticular caries had separated a considerable portion of that which was superficially sound from the cancellous texture beneath. Care was taken to remove, by dissection, all the disorganised tissues within reach; and in this search abundant granulations, with purulent infiltration, were discovered far back in the popliteal space. No artery required a ligature. The flap was accurately adapted with metallic sutures, but sufficient space was left at the extremities of the wound to allow of drainage. The limb was placed in a straight position, supported and lightly confined with bandages. The wound was left exposed without any dressing, in accordance with the plan recommended by Dr. Humphry, of Cambridge.

She suffered a good deal from the combined effects of shock, loss of venous blood, and chloroform, being sick and faint, with a quick, feeble pulse, and abdominal pain. Brandy and opium were administered, but she rallied slowly, and reaction did not fairly take place until the third day. On the fifth day she was rallying considerably, and a healthy discharge escaped from the wound. The sutures were then removed. On the seventh day a small abscess on the side and front of the tibia was opened, and pus could be pressed out of this opening from the popliteal space. The edges of the wound had retracted about a quarter of an inch, but it was looking healthy. After this she improved slowly; the discharge continued from the two openings on the outer side and front of the knee, and the wound gradually contracted. Being thin, she suffered from a small bed-sore over the sacrum; this probably increased a natural restlessness, and there was consequently some trouble occasioned by tendency to displacement or arching of the knee outwards. In October she was much improved in health, and the line of incision had nearly healed. She was sent to Margate about this time, but has recently returned to the Hospital in a condition which makes it doubtful whether she will ultimately recover without some further operation, as there are several deep sinuses discharging freely around the knee.

(To be continued.)

ORIGINAL COMMUNICATIONS.

SOME OBSERVATIONS ON THE LINGUAL GLANDS,

OTHERWISE KNOWN AS THE GLANDS OF BLANDIN OR NUHN; AS ALSO GLANDS OF THE TIP OF THE TONGUE (HENLE), GLANDS OF THE FRŒNUM (GOODSIR).

By Dr. T. DEVILLE,

Formerly of the Ecole Pratique de la Faculté de Medicine de Paris, etc., etc.

As I have not met in any of the ordinary text-books of British anatomists with any description of these glands, I am induced to give a few particulars about them. Cruveilheir ("Traité d'Anatomie Descriptive," 3me edition, tome 3me, pp. 249—250) thus describes them:—

"Beneath the transverse fibres of the tongue, above the conjoined fasciculi of the lingualis and stylo-glossus, are found, in the thickness of the tongue, immediately behind the frœnum, two glands, one on the right, the other on the left side, first described by Blandin. Nuhn, who was, without doubt, unaware of the discovery of the French anatomist, gave an account of them at a later period in an essay on "Glands not yet described." They have the form of an almond, are further apart at their posterior extremities than at their anterior, receive many vessels and ramifications of the lingual nerve. Nuhn has only found them in man and the orang-outang. The excretory ducts, variable in number, open on the fringes

of the inferior surface of the tongue. The lingual glands are composed of acini, which are nothing more than the extremities, in form of *culs-de-sac*, of the ramifications of the excretory ducts. As they are not found in the rest of the animal kingdom, Nuhn supposed that their secretion served to facilitate the movements of the tongue, and their existence was in unison with the faculty which man possesses of interpreting his thought by speech."

I have given preference to M. le Professeur Cruveilheir's description, inasmuch as M. Sappey does not, in his recent work, enter so fully into details.

My own observations differ, in some respects, from the descriptions heretofore given. I have usually found them as two oval bodies, about the size of a small haricot bean, placed obliquely near the sides of the tip, their anterior extremities directed forwards and inwards, converging towards one another, but separated by an interval of about four lines, covered on their outer borders by a few of the conjoined fibres of the lingualis and stylo-glossus. When well developed they slightly elevate the mucous membrane of the under surface of the tongue, anterior and external to the frœnum linguæ. Their ducts, opening on the mucous membrane, vary in number from four to six. The glands are very vascular, being placed on the ranine arteries, and richly furnished by their branches with blood; the nervous distribution is particularly abundant, forming a complete plexus in the gland by the divisions of the lingual branch of the inferior maxillary division of the fifth pair. Indeed, I know of no glands in the human body so largely supplied with nervous filaments from the cerebro-spinal system.

The lobules which compose these glands are finer than those of the sublingual, but in other respects they have the same anatomical elements and arrangements as the salivary glands, hence their functions are undoubtedly identical. They are altogether isolated, and do not form a continuation of the sublingual glands, as described by some anatomists. The rich nervous and vascular supply, out of all proportion to the size of the glands, would seem to indicate important physiological functions.

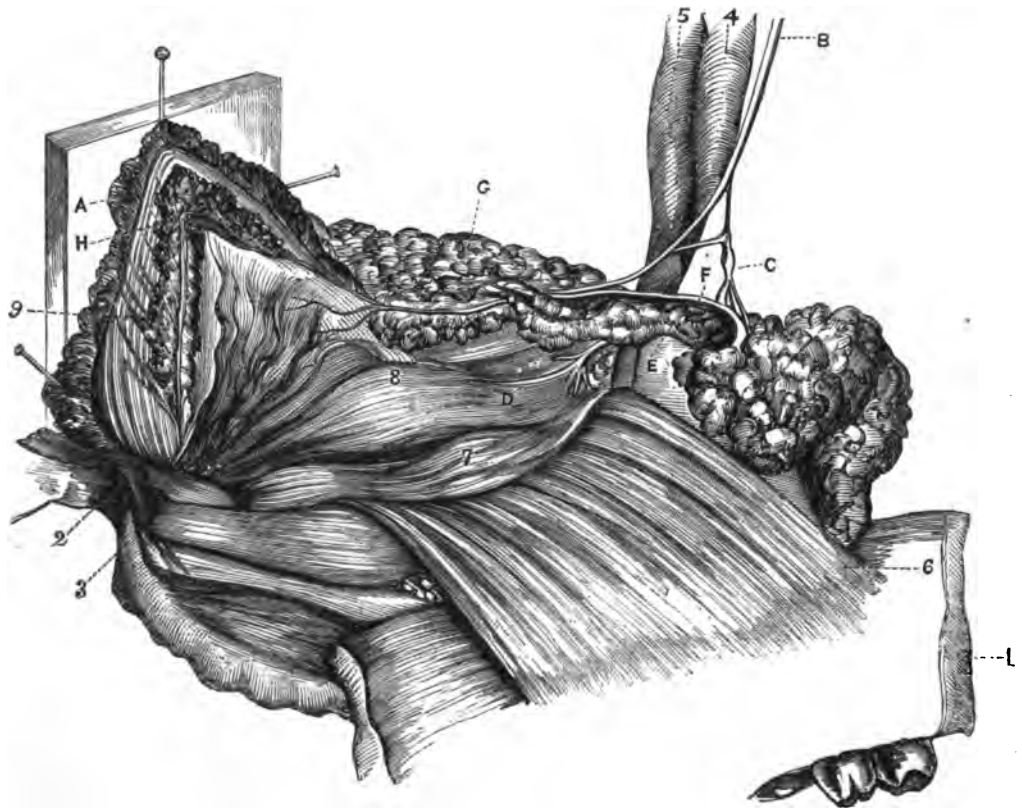
Quite recently, whilst engaged in making a preparation of the salivary glands, by desire of Professor Goodsir, of the University of Edinburgh, I have met with a remarkably fine specimen of these glands. The accompanying drawing will explain the dissection, and leaves little for me to add. The two glands are united in front, forming one mass, after the shape of a gothic arch, and at the point of union are there most developed: they are unequal in size and length, the right being by far the larger. They are placed on the outside of the genio-hyo-glossi muscles, and lie on the linguales and stylo-glossi. The lingual nerves are seen distributing numerous branches whilst coursing along them.

We often meet with unusual development of the secreting glands, and in this case the whole of the salivary and labial glands were of remarkably large size. A good example, analogous to the one now brought under observation, may be cited in the "horse-shoe kidney," where the two kidneys are united together by one of their extremities, generally the upper, across the vertebral column, and of which most museums possess a specimen. Still, I have been much interested with the preparation, inasmuch as it is to me perfectly unique, and I have no doubt it will prove equally so to most other anatomists.

The preparation is deposited in the anatomical museum of the University, and it only remains for me to give the exact measurement of this glandular mass, as made by Professor Goodsir:—Right portion, to the extreme summit of union, one inch and one-fifth; left portion, to the extreme summit of union, six and a-half lines; antero-posterior measurement of central portion of union of the two glands, four lines.

N.B.—The line is here regarded as one-tenth of an inch.

The University, Edinburgh.



1. Part of the body of the inferior maxilla cut and turned down.
2. Cut surface of inferior maxilla, near symphysis.
3. Anterior belly of digastric.
4. Posterior belly of digastric.
5. Stylo-hyoid.
6. Mylo-hyoid turned down.
7. Genio-hyoid.
8. Genio-hyo-glossus.
9. Stylo-glossus.

A. Mucous membrane reflected from the under surface of the tongue, and pinned down.
B. Lingual branch of the inferior maxillary division of the fifth pair, forming a rich plexus of distribution to the lingual gland.
C. Submaxillary ganglion and its branches.
D. Filaments of the hypoglossal nerve.
E. Deep portion of submaxillary gland, seen coursing long the upper portion of which is—
F. The duct of Wharton.
G. Sublingual gland.
H. United mass of the "lingual glands," or "glands of Blandin."

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CASE OF

PYÆMIA SIMULATING ENTERIC FEVER,

WITH ACUTE NECROSIS OF THE ILIUM, STERNUM, AND ACROMION, AND A PULSATING ABSCESS IN FRONT OF THE STERNUM.

By CHARLES MURCHISON, M.D., F.R.C.P.,
Physician to the London Fever Hospital; Assistant-Physician, Middlesex Hospital.

HENRY A., aged 18, was sent to the London Fever Hospital, as a case of "fever," on November 22, 1863. His history and symptoms on admission bore a close resemblance to those of enteric fever. He had been ill about nine days; he had suffered much from diarrhœa before admission, and a few hours after coming to the Hospital he passed a light, watery motion. The abdomen was tense and tympanitic, and there was considerable tenderness on pressure over the cœcum. The tongue was red and fissured, with the papillæ rather enlarged, and there was occasionally a circumscribed pink flush on both cheeks. Pulse 120; no headache or delirium; pupils dilated. Still, neither on admission nor at any time subsequently was an eruption discovered on the skin resembling that either of typhus or of enteric fever. On the other hand, from the first day that the patient came under observation the respirations were quickened—36 in the minute; there was a dry cough, and there was slight dulness, deficient breathing, and diminished vocal resonance at the base of the left lung, extending as high as the lower angle of the scapula behind, and as high as the nipple in front.

The diarrhœa ceased on the day of admission into Hospital, and after a few days the motions were found to be solid, but the tympanitis and abdominal tenderness continued, and the patient had sleepless nights with some delirium, necessitating a recourse to opiates.

On the 25th, he began to complain of great pain in all the joints, increased by the slightest movement, but no swelling could be discovered, and there had been no rigors. The pain was particularly marked in both hip-joints when the patient was made to sit up in bed.

On the 26th, there was an erythematous blush on the knuckles of the right hand.

On the 29th, a similar redness, with great tenderness, was noticed on the dorsum of both big toes, and on the following day half an ounce of pus was let out by incision from beneath the skin over the dorsum of the left big toe. A dirty discharge continued to escape from the wound, which had an unhealthy appearance.

On December 3, a soft fluctuating swelling made its appearance, somewhat suddenly, over the middle of the sternum. It was circular and nearly two inches in diameter, and the skin over it was moderately red. The remarkable circumstance, however, was that this swelling indicated most distinctly each impulse of the heart, and was rendered tense by coughing. Very little air could be heard entering the base of the left lung below the left nipple in front and the lower angle of the scapula posteriorly, and pleural friction was heard over the dull space in the axillary region. At first sight, the pulsating swelling, in connection with the dulness at the base of the left lung, suggested the idea of a pulsating empyema; but there was no bulging of the left ribs, the intercostal depressions were equally marked on both sides, and there was no displacement of the heart's apex. Pulse, 104; respirations, 36. On the following day, the swelling had increased in size, and was very tender; its pulsating character was even more strongly marked than before. A small trocar was now introduced into the swelling, and about six drachms of laudable pus, not at all fœtid, let out. No more could be obtained, although the patient was turned on his right side. The pain, redness, and pulsation subsided at once with the disappearance of the swelling. Poultices were applied; but the opening closed up, and by the end of twenty-four hours the swelling had returned with its former characters, and with such an amount of pain and dyspnœa, that a free incision was made into it, and about an ounce of bloody pus let out.

On December 16, there was still much distress in breathing. Pulse, 108; respirations, 40. A thin sero-purulent discharge escaped from the wound, which was not increased by turning the patient on either side. During respiration the air passed inwards and outwards through the wound. On introducing a probe, it passed completely through the sternum by a channel surrounded on all sides by bare bone. When the probe was left in, it moved upwards and downwards synchronously with the action of the heart. At the situation of the opening, the lower third of the sternum was separated from the upper two-thirds, and the two pieces of bone could be made to move upon one another with a grating noise.

Considerable relief was obtained from the free exhibition of opiates and stimulants, but on December 11 the patient appeared much worse. He had become very emaciated. There was a deep red circumscribed flush on both cheeks. Tongue dry in the centre. Pulse 112, very feeble. Breathing at times was very hurried, at others tolerably full and easy. Nearly two ounces of pus were let out by an incision made at the top of the right shoulder. This abscess did not seem to have any connexion with the shoulder-joint. The physical signs of the chest did not indicate any extension of the pulmonary mischief.

The dyspnœa increased. Great pain and distress were occasioned by the two portions of sternum riding over, and grating on, each other during respiration. On December 12 the lad's face was very dusky, and he was evidently sinking, and at 6 p.m. he died, his entire illness having lasted about thirty days. The skin did not present the slightest tinge of yellow, and at no stage of his illness had there been any rigors.

Autopsy Forty-four Hours after Death.—Body much emaciated. Right thigh and leg swollen and œdematous; left lower limb not so. The right femoral vein was compressed by an abscess beneath the fascia at the upper and anterior part of the thigh, which contained about an ounce of pus. On laying open the abscess above the right shoulder, the extremity of the acronium was found exposed and dead, and a portion of necrosed bone the size of a pea was loose and detached. The shoulder joint was intact. Chest.—The artificial opening in the skin led into an empty circumscribed cavity behind the sternum nearly two inches in diameter, bounded in front by the sternum itself, which was bare and black, and posteriorly by the ligaments and apneurosis. At the level of the third rib, the sternum was completely separated into two pieces at what appeared to be a natural articulation. An inch and a-half of the lower portion and half an inch of the upper were quite bare, and of a dark hue on their posterior aspect. The opposed ends of the two pieces could be made to overlap to the extent of a quarter of an inch. The left pleural cavity contained half a pint of puriform fluid. The outer surface of the lower lobe of the left lung and the corresponding costal pleura were of a deep red colour, and were glued together by a quantity of soft yellow lymph. The lower lobe of the left lung was condensed (at many places sinking in water) and tough, as if from pressure of pleuritic fluid. Its section was nowhere granular. The lower lobe of the right lung was œdematous, and in its substance, near the anterior margin, was a circumscribed cavity the size of a hazel nut filled with thick yellow pus. The pleural surface of the lower lobe was coated with a few flakes of recent lymph, which were most abundant along the free margin of the base. There was no communication between either pleura and the post-sternal abscess. The pericardium contained four ounces of clear straw-coloured serum; the lining membrane of the right cavities of the heart was stained of a deep red hue; the right cavities contained a small coagulum partially decolourised. The valves and muscular tissue of the heart were normal. Abdomen and Pelvis.—There was no fluid or lymph in the peritoneum. Liver and spleen healthy. Both kidneys much injected, and both, especially the left, contained several circumscribed deposits of pus, up to the size of a pea. The stomach and intestines were healthy: there was no abnormal injection or elevation of Peyer's patches, or of the solitary glands. There was a large abscess containing fully a pint of pus in the concavity of the right ilium. The bone over a space measuring two and a-half inches in diameter was quite bare and bathed by the pus; this exposed portion of bone was of a dark hue, and surrounded by a distinct line of demarcation in the form of a superficial groove; the absence extended some inches downwards, behind the pelvic fascia, towards the perinæum; the right psoas muscle passed through it, and was surrounded by the pus. The right sacro-iliac joint was laid open, and the ligaments and cartilage destroyed, so that the finger could be inserted between the bones; and when the limb was rotated, there was considerable movement of the one bone upon the other. The lumbar vertebræ were not reached by the pus, and appeared healthy; there was also an abscess containing several ounces of pus outside the pelvis over the convexity of the right ilium. This abscess communicated with that within the pelvis through the sacro-iliac joint. The right ilium, on its convex aspect, was also bare and bathed by

pus over a space measuring about two inches in diameter. The bone here resembled the bare bone on the inner surface, and corresponded to it in situation. Two other abscesses were discovered, one beneath the fascia at the upper and anterior part of the right thigh already described, and another containing about an ounce of pus in the substance of the left iliacus muscle, but in no way implicating the bone.

Remarks.—This case presented some remarkable features in reference to diagnosis. The early symptoms were closely assimilated to those of enteric fever, and the resemblance was increased by the existence of tympanitis and tenderness over the cœcum. The absence of rose spots, which were carefully looked for every day, was the sole point of distinction; but even in enteric fever these spots are not of universal occurrence. The pulsating tumour over the sternum might, at first sight, have been readily mistaken for an aneurism or a pulsating empyema; (a) but the rapidity of its development, and the absence of the ordinary physical signs of empyema, negatived both of these suppositions. As regards the pyæmic nature of the case, the complete absence of rigors or of any peculiar discoloration of the skin is worthy of notice. The origin of the whole mischief is somewhat obscure. The boy had sustained no wound or injury, that could be discovered, to account for the pyæmia; he had no sign of scrofula, nor was there any absolute proof that the pyæmia resulted from the circulation of any specific poison in the blood. The condition of the intestines showed that there had been no enteric fever; but it may be mentioned that the boy came from a locality where typhus was very prevalent, and although no eruption could be discovered on his skin, it is not impossible that he had passed through an attack of typhus before he came under observation. A formidable form of pyæmia, with purulent deposits in the joints, is well known to supervene occasionally upon attacks of typhus in certain epidemics, although this sequela has certainly been rare of late years in London. Surgical writers also speak of acute necrosis as not uncommon in "those debilitated states of the constitution that so frequently follow upon typhus fever."(b) At the same time, it is right to add that the boy's symptoms before he was brought to the Hospital were not those of typhus fever, and therefore I am inclined to conclude that the acute necrosis and pyæmia were the common result of some other unknown morbid condition of the blood.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

ABSTRACT OF A CLINICAL LECTURE ON A CASE OF EMPYEMA IN A CHILD.

By Dr. JENNER, Physician to the Hospital.

The following is the substance of a clinical lecture by Dr. Jenner. The report of the case is by Mr. Edward H. Fox, Physician's-Assistant:—

Dr. Jenner used the word "empyema" to signify inflammation of the pleura, with effusion of pus. In pleurisy, there is effusion of lymph, serosity, and pus. Inflammation of the pleura, like that of other serous membranes, never lasts many hours, or possibly minutes, without the formation of one or all of those; only one usually predominates.

On the child's admission, the diagnosis was that of fluid in the pleura. This was certain. Next, that that fluid was pus. This was highly probable, as the child was the subject of tuberculosis, and probably even of the deposit or formation of tubercle. Dr. Jenner then gave the means by which the diagnosis of fluid was arrived at. This will be found in detail in Mr. Fox's history of the case. In the adult and in the child, dulness would indicate, either fluid in the pleura or consolidation. In the adult, the further diagnosis was easy, as, in effusion into the pleura, there was an absence of vocal fremitus. But, in the child, this test was not to be obtained. We could, however, arrive at an accurate diagnosis by observing whether or not the organs were displaced. In this child, the heart, as will be seen in the report of the case, was pushed over to the right side, and the line of dulness extended half an inch to the right of the sternum. It was certain, then, that the child's left pleura was full of fluid. The next point was to ascertain the nature of that fluid. That it was pus was thought to be highly probable, on consideration of the mode of attack. It was insidious, or, at least, very sub-acute. Then there was an absence of exciting causes. There was evidence of tuberculosis from her family history and from her build. She was, the report of the case states, "fair, delicate, tubercular-looking, and thin." The hygienic conditions under which she had lived were unfavourable. Then her having had whooping-cough just before favoured the diagnosis of pus, as did also her age. In children, effusion into the pleura was often purulent, probably because tuberculosis was very common at that age.

As to the spitting of blood, Dr. Jenner did not think that of much value as evidence of presence of tubercle when it occurred in whooping-cough. Still, it ought to be taken into account; but, as a matter of experience, he remarked, children who spit blood in whooping-cough generally recover.

The local and constitutional diagnosis having been thus made, the next point was, what was to be done to get rid of the fluid. If the effusion was very large, sudden death was not very uncommon, even when there was no dyspnœa to point to danger. This was due, probably, to the mechanical displacement of the heart and great vessels; clots in the pulmonary artery, which might extend to the right auricle; compression of the opposite lung. Then, for the sake of the lung of the same side, it was necessary to get rid of the fluid. Extreme compression would induce collapse, and possibly inflammation; and, again, the compressed lung might become the seat of tuberculisation. The longer the lung was compressed, the less likely it would be to re-expand. So far, the remarks are general; but, in reference to this particular case, there was (Dr. Jenner pointed out) hectic, either from irritative fever, or, perhaps, from absorption of fluid, showing that the child was suffering constitutionally as well as locally.

Having decided that the fluid should be got rid of, the next point was, how to do it. In order to promote absorption, as there were no immediate urgent symptoms, the child was well supported by food and fresh air. The compound iodine ointment was rubbed over the left side of the chest. Dr. Jenner said that the iodine was better than blistering, as the latter tended to increase the irritative fever. He remarked, also, that the iodine ointment was preferrable to the tincture. Iodide of potassium was also given internally. It was soon found that these remedies were of no use, or rather that there was no time to be wasted. Dr. Jenner then decided to tap the chest. This was done to relieve the lung from the mechanical pressure, in the hope that it would re-expand, and that the formation of pus would gradually cease. Before passing in the trocar in the adult, we should (Dr. Jenner said) always ascertain the absence of vocal fremitus at the point of insertion; and in the child we ought to ascertain that that exact part was free by percussion and also by auscultation, as there might be a partial gluing of the lung to the chest wall. The result of the operation, and of its repetition, will be gathered from the report of the case. Dr. Jenner drew especial attention to the fact that the lung after empyema was, when contracted, diminished in every direction, and thus the lower ribs were non-oblique as well as closer, as they covered no lung. The practical point about this was, that on tapping such a chest a second time, if the trocar were too long, and not pointed up, it would pass through the diaphragm, and enter the abdomen, and thus cause death by peritonitis.

History.—Jane L., aged 5; admitted February 4, 1863; born in London. Father alive, aged 31; healthy; never yet spat blood; his father died of phthisis, and mother in childbirth. Patient's mother healthy; never spat blood, nor have any of her relations. Patient has two brothers older, healthy, not subject to cough. Patient last winter had a very bad cough, which continued to the summer, and then disappeared; did not spit blood with it. Last September, patient had whooping-cough, which has continued till now (February). Just before Christmas, the mother noticed that she spat up blood when she coughed. Appetite continued good till last Christmas, when it failed. About a month ago, complained of pain in left side; increased by being touched. Had not been exposed to any cold. Patient sweats at night about head and neck. Patient had measles when nine months old; never had scarlet fever. Mother never had any miscarriages.

Present State (February 6).—Fair, delicate, tubercular-looking child; very thin; breathing oppressed; nares act a little during inspiration; child draws in her breath, and then

(a) See Dr. McDonnell's cases of pulsating empyema, in *Dublin Journal of Med. Science*, March, 1844.

(b) See Erichsen, "The Science and Art of Surgery," Third Edition, p. 652.

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holds it some time before expiring, which she does with a jerk. Left side of thorax looks much larger than right; sternum deviates to right. Intercostal spaces obliterated, even to first, presenting a striking contrast to opposite side; during inspiration the lower ones recede; a line of depression is seen around the thorax, mostly marked at ensiform cartilage. Heart can be felt beating to a little outside right nipple; apex impinges just to right of apex of ensiform cartilage; no murmur. Liver: upper margin a finger's breadth above umbilicus. Whole of left chest, from base to apex, dull; dulness extends to half an inch to right of sternum. Posteriorly: above, respiratory sounds distant and feeble; bronchial, at middle of scapula; below this, coarse, feeble, but superficial. Anteriorly: respiratory sounds distant, feeble. Right chest, anteriorly: under clavicle, expiration loud, rough; respiration divided. Reported by nurse to perspire freely night and day; skin cool; pulse, 120; respiration, 40; sitting in nurse's arms; very anæmic. Measurements of chest: right side, one inch below nipple, 10 inches; left, 10⅜ inches; at nipple, right, 10 inches; left, 10⅝ inches; higher up, same on both sides. Ordered, ℞. Potassæ bicarbonatis, gr. iij.; potassii iodidi, gr. jss.; syrupi, ʒss.; aquæ ad., ʒss. M. ft. haustus, 3 tis hôris sumendus. ℞. Ung. iodinii co., to be rubbed into left side. Diet: milk, beef-tea, wine ʒiij.

8th.—Face flushed; perspiring freely; coughs more during night than in day; pulse, 104; respiration, 48; measurements as at last report.

9th.—Breathing very troublesome during night; coughs a good deal; pulse, 80; respiration, 36; bowels open; urine slightly acid; specific gravity, 1020; no albumen.

11th.—Lying on left side—always does; a little more dusky; face decidedly fuller; dulness extends to 1¾ inch to right of sternum; looks oppressed; evidently suffering from mechanical impediment to breathing. Paracentesis thoracis was performed; ʒvij. of pus withdrawn. The pus is acid.

12th.—Very restless during night; slept scarcely half an hour at a time; perspired freely in night; feverish and more languid; perspiration in drops on the forehead; skin very hot; pulse, 68; seems to breathe more freely; measurements not perceptibly altered.

13th.—Slept better; more recession of soft parts on right than on left side; bowels confined; pulse, 112; tongue covered with a white fur; more resonance at apex (lung resonance) of left chest; absolutely dull up to middle of left scapula; in front, dulness up to third rib; only distant breath sounds in front; behind, distinct breath sounds in upper half, coarse; dulness, right chest from clavicle to nipple. Heart can now be felt about three-quarters of an inch inside left nipple.

16th.—Restless; skin very hot; perspired freely last night; heart beats in centre of sternum.

17th.—Very restless during night; skin hot and perspiring; perspiration in drops on forehead; considerable recession of soft parts, and action of sterno-mastoids; breathing worse; coughs a good deal more; does not seem so well, but looks anxious; tongue moist, covered with white fur; bowels acted twice during night; pulse, 140; respiration, 32. To omit medicine. ℞. Vini ferri, ʒj.; quinæ sulph., gr. ¼; acid. sulph. dil., ♏j.; aquæ ad., ʒss; t.d.s. ℞. Ol. morrhuæ, ʒj.; t.d.s.

18th.—Child seems more cheerful, sits up in bed, was lying on "right" side; breathing better; less recession of soft parts; tongue cleaner; perspires freely; wound in thoracic walls perfectly healed. Measurements just below nipple: right side, 10¼ inches; left side, 10⅜ inches. Heart's apex impinges three-quarters of an inch inside left nipple. Dulness of right side in front continues, and enters more freely into apex of left lung; below, the dulness is unchanged.

23rd.—Slept well; perspired freely; breathing more impeded; recession of soft parts, right side, more marked; dulness, left side, increased; heart's apex impinges one inch outside right nipple; pulse 152, soft, compressible; no alteration in measurements; sitting up in bed; hands hot, palms moist; sweat on forehead; suffering evidently from dyspnœa; gets attacks of hectic, flushed cheeks, and sweats in the evening; bowels act daily. Child in nurse's arms: difference in thorax on both sides marked. Intercostal spaces cannot be seen on left side, but can on right. Even during inspiration one or two come into view, whilst on right side they can be seen and counted up to scapula. Emaciation progresses. Back: percussion clear and empty to a little above middle of scapula. It is dull below, excepting an inch and a quarter next spine, where there is still, except at extreme base, clear and empty sound. Respiration audible over all parts where resonant, and below, everywhere, there is absolute dulness, but coarse, feeble, inspiratory sound, and rough, coarse, expiratory, somewhat bronchial. Front bulged more than on admission. Intercostal spaces visible more in front than behind; clear and empty sound or tubular. Well heard as low as second cartilage and rib; below, absolute dulness, more so than posteriorly. Heart's apex: extreme right most perceptible full half an inch to right of right nipple; perceptible at epigastrium; no murmur. Liver: upper border rounded; extreme dulness on right side even to clavicle, but less under this bone than a little below. Under clavicle on left side respiratory sound is rough, feeble, and distant. Dulness under right clavicle is probably due to heart and partly to fluid on left side, and may be some tubercular bronchial glands. Respiration very loud under right clavicle—rough, somewhat bronchial. Respiration loud and rough in right lung posteriorly. Coughs a good deal more.

25th.—Paracentesis performed again to-day. ʒvj. of pus withdrawn, acid; no air admitted; very restless all night; perspiration very free.

March 2.—No albumen in urine; size of chest not diminished. Apex-beat outside right nipple.

6th.—Heart: same position as at last report; some puffiness about opening in thorax. Posteriorly: left side, absolute dulness; posteriorly as high as angle of scapula. Right side, resonance good to middle of scapula; above that, clear and empty. Anteriorly: absolute dulness over heart; right infraclavicular region clear and empty; left ditto, but from second rib downwards, absolute dulness. On right side, infraclavicular region: breathings loud, coarse, with prolonged expiration. Left side: breathing feeble, distant. Below, in front, absence of breath-sound. Behind, coarse, diffused, bronchial, almost to base; reported to sweat profusely.

11th.—Tapped again yesterday; fifteen ounces of pus removed, acid; very restless during night; very hot, but did not perspire. Sitting up in bed this morning; better and more cheerful; pulse 104, weak. Heart as much to right as at last report. Resonance under left clavicle greater—extends behind to middle of scapula.

16th.—Looks more dusky and swollen in face; superficial veins in thorax and abdomen more distinct; abdomen large and fuller; heart felt beating at centre of right lateral region; dulness increased above, on right side; hectic continues; profuse sweats. To have meat twice daily.

20th.—Tapped again; five ounces removed.

27th.—Diarrhœa since yesterday.

28th.—Diarrhœa has ceased. To have vini ferri, ʒj., three times daily.

May 11.—Continues to emaciate; not quite so thin as she was. Inclines towards left; spine curved; right shoulder raised; sternum deviates to right. Sweats very little. Absolute dulness below angle of left scapula; above that, clear and empty. A little air enters lower half of lung; a good deal posteriorly, above angle of scapula. Under left clavicle about as much air enters as posteriorly; below, scarcely any. Apex of heart impinges a little outside right nipple.

July 10.—Left Hospital.

November 18.—Patient has just returned from a stay in the country. Is better nourished than when she left the Hospital. Inclined to left side; left side of thorax is manifestly smaller than right; flattened anteriorly. Sternum deviates to right; left shoulder lower than right. Angle of scapula tilted backwards; base is oblique, angle outwards. Spine is curved; convexity to right. Aperture in thorax closed; scar remains. Face a little puffy; has more colour. Slight, very slight œdema of lower extremities. Ribs on left side, where perceptible below, are very oblique. Difference of costal angles marked. Heart's beat not perceptible at epigastrium or below thoracic parietes; can be felt at mid sternum. By the stethoscope, it can be heard pulsating inside the right nipple, and to within a little of the left nipple. Percussion: heart's dulness extends to within a little more than a finger's breadth of the right nipple; three fingers' breadth between nipple and sternum. No cardiac murmur base or apex. Whole of left chest is dull anteriorly; a little trace of resonance under clavicle; dulness extends across sternum to right, and just to the right of the sternum, where the clear sound begins on superficial percussion; on deep percussion, there is a cracked-pot sound. Posteriorly: absolute dulness from base to spine of scapula; at extreme apex there is very empty tympanitic sound; there is a little breath-sound over whole chest posteriorly; much more above spine of scapula than anywhere

else. Breathing rough; some sonorous rhonchi. Strong bronchial respiration under left clavicle, all but cavernous; no trace scarcely of breath-sound below nipple. Depression at epigastrium extends upwards to left nipple; upper margin of liver strongly marked.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.

REMOVAL OF A FOREIGN BODY FROM THE ORBIT, WHERE IT HAD REMAINED UNDETECTED FOR SIX MONTHS.

(Under the care of Mr. NORMAN.)

For the report of this and the following case we are indebted to Mr. D. O'Brien, House-Surgeon.

A. C., aged 17; admitted December 10, 1863. The patient was a drummer in the — Regiment of Infantry. When stationed with his regiment at the Curragh Camp, he met with an accident which was attended with some peculiar circumstances. It appears that he had filled a stone ink-bottle with gunpowder, which accidentally exploded close to his face, forcing a piece of the bottle into his left eye, and, of course, destroying that organ. There was at the time profuse hæmorrhage, and a considerable amount of inflammation followed. The latter subsided after the usual remedies. He was discharged the service on the 22nd September last, and came to Southsea to reside with his friends. When admitted as an in-patient he was suffering from eversion of the upper lid, which was attended with a great deal of iritation. After the lapse of a few weeks, the presence of some foreign body being suspected, he was brought to the operating theatre, and, being put under the influence of chloroform, Mr. Norman removed with a forceps, using considerable force, a portion of a stone bottle, which had been embedded in the roof of the orbit, occupying, as nearly as possible, the situation of the lachrymal gland. The operation took place on the 5th of January, exactly six months from the date of injury. The fragment was an inch and a-half in length, three-quarters of an inch in breadth, and a quarter of an inch in thickness.

STRICTURE OF THE URETHRA, COMPLICATED WITH FALSE PASSAGE AND FISTULA IN PERINEO—SUCCESSFUL OPERATION.

(Under the care of Dr. SIMPSON.)

G. J., aged 54 years, was admitted November 10, 1863. He had stricture of the urethra of two years' standing, and a fistula in the perineum, through which most of his urine flowed, very little coming through the natural passage. The urethra was obliterated from the bulb to the fistulous opening, an inch and a-half in length, and there was a tortuous false passage, through which it was impossible to pass an instrument.

The following operation was performed:—A director was passed through the fistula into the bladder, that portion of the urethra being, fortunately, free; a catheter was passed down to the stricture, and an incision was made from the point of that instrument to the director. The catheter passed readily into the bladder, and was tied in for forty-eight hours. The result was perfectly satisfactory; the fistulous opening healed rapidly, and the urine now comes through the canal in a full stream. This operation is interesting in this point, that though the continuity of the urethra was lost from the bulb to the fistula, and the incision was made, as it were, at hazard, the parts are now, to all appearance, in a normal condition. A No. 10 catheter can be passed without the least difficulty.

Harris *v.* Twiss.—This case, tried at the Limerick Spring Assizes, was an action for slander brought by Dr. Harris, Surgeon to the Newport Dispensary, against Mr. Twiss, a member of the Board of Guardians of the Newport Union. A servant of Mr. Twiss' had met with an accident, which produced a severe contusion of the arm, but neither fracture nor dislocation. Dr. Harris saw the boy, and recommended rest and a cold lotion. A bone-setter was afterwards called in, who said the bone was fractured, and professed to set it. The slander alleged was that at a meeting of the Board of Guardians, Mr. Twiss brought a charge against Dr. Harris that he (Dr. Harris) had said that the boy's bones were not broken, when, in reality, they were; and in proof of it had stated that when the arm was set the boy was relieved of pain. Dr. Harris brought the action to vindicate his Professional character. The jury returned a verdict for the defendant, with 6d. costs.

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Medical Times and Gazette.

SATURDAY, MARCH 19.

"BRITISH MEDICAL" TRADESMEN.

"Licet omnibus, licet etiam mihi, dignitatem *Artis Medicæ* tueri; potestas modo veniendi in publicum sit, dicendi periculum non recuso." —Cicero.(a)

Most of us would so indignantly spurn the notion of being called "tradesmen," instead of Professional gentlemen, that it is well worth while to keep in mind what the distinction really is. We may state it formally thus:—The Professional man is, of necessity, the cultivator of some branch of science; he freely communicates his knowledge and its fruits to his brethren; he must, when consulted, act or advise for the benefit of his client, and not for his own; and, lastly, he must consider himself bound, not only to cultivate science, but to hold it as a trust for the benefit of his fellow-creatures. If the cause of science or of humanity require it, and if there be no reason to the contrary, he will give all the benefits of his skill to those who are utterly unable to offer him any return; and whatever he does receive will be in the nature of a gratuity, which may be greater or less according to the means of the person benefited.

It is superfluous to say that a tradesman deals in goods; that he keeps all his processes secret if he can; that if a customer come to him he usually tempts him to buy as much as possible at the highest price, without considering whether the customer wants the goods; that he is not obliged to communicate one bit of knowledge, or part with one bit of material without return; and that he is entitled to sue any one who gets into his debt.

We are most glad to acknowledge that there are tradesmen —mere men of business by occupation—who throw into their callings a feeling of honour of which any profession might be proud. The wine merchants speak of a *chivalrous* way of doing business, when they speak of those who would submit to any loss rather than sell bad wine. There are printers, publishers, philosophical and musical instrument makers, and scores of others who are truly scientific men, and love their vocation on higher grounds than mere £ s. d. There are Professional men, too, who resort to advertising, puffing, and some of the mercenary tricks of trade, and who keep out of sight the higher duties of a profession. But no mere abuse can alter the essential nature of the two callings.

There is no doubt but that the Professional man, from his higher position, is exposed to many vexations which don't annoy the tradesman. More especially, he is always liable to be misunderstood by that vulgar herd who can conceive neither science, humanity, nor honour as motives, except in so far as they may lead directly or indirectly to money; he may at any time be confronted with persons ready enough to remind him of the obligations of his Profession, yet not equally ready

(a) We restore to its old place for once the old motto of the *Medical Gazette*. This was before true British Medical commercial principles had been publicly avowed.

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to remember their own; and will, of course, meet with many fruitless, vexatious, unnecessary, and unremunerative calls on his time, and with a great deal of ingratitude.

But there is absolutely no help for it. We must submit to all this if we would be Professional gentlemen, and not tradesmen.

A lamentable case, which may serve to point our moral, has just happened at Birkenhead.

A poor pregnant woman came with her husband to Birkenhead a month ago. They were strangers, and had engaged no Medical attendant. On Tuesday night, the 8th, at about nine o'clock, she complained of pain. At half-past twelve she became worse; it was clear that premature labour had set in; and the husband went out to get a Medical man. He swore that he called at the houses of six, but that not one would attend. He deposed that one of them said to him—"Well, if you are a stranger, I will not turn out till you put a guinea in my hand." At last, one of them who had gone to bed ill, and who had refused to go on that account when applied to at one o'clock, was again applied to at four, and being adjured "for Heaven's sake, to come and save a woman's life," went as an act of humanity. But he found her pulseless; there was no brandy at hand, and the woman died.

We may be excused if we express our wonder that such a simple contrivance as an *accoucheur's bag* is not in use in Birkenhead. Every man in midwifery practice would find it convenient to have a common small leather or leather-cloth bag into which he might put ergot, chloroform, catheter, stethoscope, and all the odds and ends required at ordinary labours, including a little pocket-pistol of brandy and some concentrated beef-tea. Such a bag, standing ready to be snatched up at a moment's notice, saves always time and thought, and may save even life.

Of course there was a coroner's inquest, during which some hard observations were made by jurymen against the Doctors. One juror thought it was a pity there was no law to compel Medical men to attend in such cases. The coroner summed up fairly enough. We take the report from the *Liverpool Mercury*:—

"The Coroner: But there is no such law. The deceased and her husband had been in Birkenhead a considerable time, and yet they had not engaged a Medical man; hence all this confusion. Half a dozen Medical men were requested to attend at a moment's notice, but the members of the Profession were not in the habit of attending such cases without being previously engaged. He regretted very much that the occurrence had taken place, because he had heard of many complaints of different persons in Birkenhead who had been suddenly taken ill in the night, and no Medical man would attend. Only a fortnight ago a poor woman living near the Hospital was taken ill with violent inflammation in the dead of the night, and although her husband was a respectable man, who would be able to pay, none of the Medical men who were applied to would attend, and the woman was lost from absolute neglect. He perhaps was not right in calling this neglect, for there was no law to compel a Medical man to attend a case; but it seemed an extraordinary thing that a respectable woman, when taken ill at midnight, should die because no Medical man felt disposed to attend her. It was, he repeated, a matter much to be regretted. This was not the practice of Medical men in other parts of the country, but in Birkenhead constant complaints were being made. In the part of the country where he came from, Medical men attended such cases without first asking for a guinea, and often went several miles. They went as a matter of duty, risking whether they got paid or not. He considered that the deceased and her husband were culpable for not seeking the advice of a Medical man as soon as they arrived in Birkenhead, for unless Medical men were engaged there would always be an amount of difficulty, particularly at midnight."

It would be easy enough to retort on the butchers and bakers who sit on a coroner's jury by asking them how they would like a law that should compel them at any minute to give beef-steaks and quartern loaves to any hungry wretch who might knock them up in the middle of the night? But we cannot. To use such an argument would be to degrade ourselves to their level. No; we cling to the idea of the *Profession*, with all its responsibilities, and we affirm that the man who had no excuse of ill-health, or old age, or previous occupation, and who refused to go without "a guinea in his hand," acted like a tradesman, and not like a Professional man. As was so well said by Dr. Macculloch, in our number of last week, "The Doctor is morally and socially constrained to give his services to all." It is his duty first to save life, and to get paid afterwards, if he can. To ask for "a guinea in hand," first, is abhorrent to the Professional character.

We are reminded from time to time that there exists a numerous and influential body called the British Medical Association, which has, if we mistake not, an Ethical Committee, and which can be severe enough on any infringement of Medical etiquette—*Quere*, what has it to say on an infringement of the law of humanity? Shall we hear of a special meeting of some *Branch* to consider this scandal, and provide against a repetition of it? Unluckily, we have an answer beforehand. The *British Medical Journal*, the "organ" of the Association, repudiates that duty of gratuitous service, which is one not only of the signs, but of the necessary conditions, of our Profession. In an article headed "Gratuitous Medical Services," it says (the italics are our own):—

"There is involved in all this another great fallacy—indeed, a *really humbugging pretence*, viz., that *Medical men do these services from a high moral motive*. Any Medical man who indulges in gratuitous services-giving will, if he answer honestly, tell us that he *gives these services solely and simply because he considers it answers his purpose to do so*,—because, in fact, he *finds it a good money speculation*. To pretend that there is at the bottom of the gift *any great or noble sentiment, is downright Tartuffism*. We give our services to Hospitals *because we expect thereby, indirectly, to benefit ourselves*. No better proof of the fact could be shown than this, viz., that *very few Hospital men, when they have attained the position in private practice which they desire*, continue, all for the love of high moral motive, to give the Hospital poor the advantages of their great and accumulated knowledge. Unless their private interests pull in an opposite direction, men cease (and very properly) to give gratuitous services when their private practice enables them to be better employed—as soon, in fact, as they can secure the latter without dispensing the other."

Really, then, the hundreds of Hospital Physicians and Surgeons are not only tradesmen, but worse! Their stock-in-trade is a sham! Under pretence of doing good to the sick poor, they conceal a sordid money speculation! If they pretend to any higher moral motive, they are so many Tartufes! We congratulate the Hospital Physicians and Surgeons of England on their "organ," and hope they are proud of it.

We will not stop to ask whether Brodie, Bright, Guthrie, Graves, J. H. Green (we will not mention living men, nor yet great men of the past, but only some of those noble souls who have been removed within our own memory) whether they thought nothing of the promotion of science for its own sake,—nothing of the instruction of the rising generation,—nothing of the welfare of the needy. We will not ask whether such of us as cultivate the auxiliary sciences—the chemists, anatomists, and physiologists—really are as bad as Surgeons and Physicians, and conscious of the mere inspiration of pounds, shillings, and pence. If we want to see the fruits of the teaching of the British Medical Association's "organ," we need only look at that dead young mother at Birkenhead; but we venture to add one argument which the "British Medical" tradesman won't be deaf to, which is, that it *won't pay* to have many more such inquests as this.

OXFORD AS A PLACE OF MEDICAL EDUCATION.

During the last ten or fifteen years the University of Oxford has done a great deal to increase its efficiency as a place of Medical education. This is partly due to the suggestions of the recent Royal Commission, but chiefly to the attention which has been paid by the authorities to the claims of physical

science, and to the recommendations of the present Regius Professor of Medicine.

In 1850 a School of Natural Science was instituted, and the number of those who have offered themselves for examination has gone on steadily increasing. In 1855 the foundation was laid of the splendid museum in whose spacious galleries are now gathered together the various collections of natural history, comparative anatomy, pathology, etc., which were formerly scattered throughout the University.

The Radcliffe Travelling Fellowships have been put upon a new footing, which if not the best possible, at any rate bids fair to make them more useful than before. The Professorships of Chemistry and Physiology, which formerly were either in abeyance or associated with other Chairs, have entered on a new existence under the most favourable auspices. The examination for the Degree of M.B. has been divided into two parts—a theoretical and a practical, separated from each other by an interval of two years—and otherwise assimilated to that which obtains at the sister University and at the University of London. At several Colleges Scholarships and Fellowships have been awarded for proficiency in the Physical Sciences—a thing almost unheard of twenty years ago. And though the number of such encouragements is at present but small; still it is an increasing number, and we have no doubt that by-and-by it will bear a fair proportion to the place which natural science holds in Oxford education. But the greatest improvement of all yet remains to be mentioned. We allude to the statute which has recently been passed, after much discussion, and despite an active opposition. It is now ruled that if a man attains a certain standard at "Moderations"—a classical examination which he meets about the middle of his career—he may thenceforth lay aside classics altogether, and confine his attention to physical science. This will be a great boon to those who are looking forward to the study of Medicine. Hitherto the time and money consumed on a University education have prevented many of those who aspired to the ranks of our Profession from availing themselves of its advantages. Now, however, these conditions are considerably modified. The *time* which a young man will have to spend from the date of matriculation till he is able to graduate in Medicine, has been reduced by some eighteen months or two years; and the *expense* will, of course, be diminished in a proportionate degree. We sincerely hope that those who have been instrumental in bringing about this alteration may have the satisfaction of finding that they have met one of the requirements of the Profession, and that the number of those who enter the schools of natural science and of Medicine will be materially increased.

Oxford can never expect to furnish an *entire* Medical education. The city is too small to supply the Infirmary with such a succession of acute cases as is necessary for clinical teaching and study. But now, under the new statute, she does as much for our Profession as she does for the clergy or for lawyers. In each case she offers a sound classical and general education, together with the elements of a special training; but in each case that special training must be perfected elsewhere. After she has done her utmost for those who are studying Medicine, attendance at a metropolitan Hospital during a short time—say two years—will still be found necessary.

THE WEEK.

THE ARMY MEDICAL SERVICE.

A CORRESPONDENT has sent us the following extract from Horse Guards Circular, March 9, 1864:—

"Earl de Grey and Ripon is of opinion *that the system of imposing fines* on Medical officers who have passed recruits should be discontinued."

The italics are our own, and we feel that, for once, at any rate, the right terms have been employed in characterising the course hitherto pursued.

THE PREVENTION OF SYPHILIS.

IN another part of our columns will be found an extract from a letter, which was published in the *Times* of the 7th inst., by Dr. Armstrong, of the Royal Navy, on the prevention of syphilis at Malta. The facts asserted in that letter have been confirmed by a Medical officer of the sister service, whose letter appeared in the same paper on Friday, the 11th. It is stated in these communications that the present amount of venereal disease on that station is far less than that met with in sea-ports and garrison towns at home; that recently, at Malta, the number of sick from diseases of this character were only 60 per 1000, whilst at home the ratio mounts up to the enormous sum of 400 per 1000. These letters, moreover, show that Malta has not always enjoyed the same immunity; that there have been times when the proportion of disease has been much higher, and that these periods have been exactly those when sanitary police regulations have been neglected or considered not compulsory. Gibraltar furnishes evidence of the same character. In 1856-57, disease was rare at Malta, but rife in Gibraltar. In 1858, police regulations were enforced at the latter station, but relaxed at the former. The result was that the hygienic condition of the two places was reversed. In Malta disease rapidly increased; in Gibraltar as rapidly diminished. In 1859 the principal Medical officer in the military service was removed from Gibraltar to Malta; his experience and knowledge of the history of the two commands induced him to press on the authorities the necessity of a new law, the enactment of which produced the same favourable results as those which followed Dr. Armstrong's efforts in the naval service. These facts cannot be too widely known at a time when Parliament will probably be called on to legislate for the preservation of the health of our armies and fleets. The practical good arising from authoritative interference must outweigh any theoretical objections, however excellent be the motives of those who urge them. To Dr. Armstrong and the other Medical officers who have aided in obtaining the enforcement of sanitary regulations at the two great Mediterranean stations, and who have thereby preserved the health of thousands of British sailors and soldiers for the nation's service, public thanks are due. We hope that the lesson they have taught will not be forgotten.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE VII.—FEBRUARY 16.

THIS lecture was devoted to a survey of the development of man, from the ovum up to the adult condition. The formation of the Graafian follicles, and the process of "ovulation," or emission of an ovum, was first described. This process occurring at regular intervals gives rise to a remarkable disturbance in the economy, one of the principal effects of which is a determination of blood to the uterine parietes, proceeding to the extent of causing actual rupture of the vessels of the mucous membrane, with escape of a portion of blood into the cavity of the uterus, which being mixed with the uterine secretions and epithelium, constitutes the menstrual fluid. Should no impregnation occur, the ovum passes away, and the uterus and ovary return to their previous condition; but if the ovum should become impregnated by contact with the spermatic element of the male, a remarkable series of changes take place in the ovary, uterus, and in the ovum itself.

The changes in the ovum, and the early stages of the formation of the embryo, with its amnion, chorion, and allantois, are well known. In the ovary the corpus luteum is formed by a large quantity of exudative matter thrown out around the outer surface of the Graafian follicle. The walls of the uterus become extremely vascular; the capillaries acquire a great size, adapting their calibre to the increased pressure upon them by a process of growth, so that there is no rupture as in the temporary congestion of the menstrual period; the muscular fibres increase in number and length; the

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nerves increase, and more than any other part, the mucous membrane with its numerous cæcal follicular glands. Around the spot at which the ovum is lodged a fold of mucous membrane grows up, and still containing glands and vessels surrounds the whole ovum. The rapid growth of the latter, however, distends it greatly, and causes it to lose part of its original structure. This constitutes the so-called "decidua reflexa," the part of the mucous membrane between the ovum and the uterine wall forms the "decidua serotina," and the remaining part upon the inner surface of the cavity the "decidua vera." By the middle of pregnancy the latter loses its vascular connection with the tissues below, can readily be stripped off, and a new growth of lining membrane takes place beneath it.

The villi of the chorion, at first scattered all over the surface, afterwards become limited to a particular region, opposite to the decidua serotina; and the interaction of these two structures leads to the formation of the placenta. The glandular parts of the mucous membrane become obliterated by the enormous development of the intervening blood-vessels, which assume the form of large sinuses; into these sinuses the greatly-developed villi of the fœtal membrane project, so as to allow of an interchange of materials between the blood circulating in the mother and the embryo.

The human ovum is thus, at first, implacental, then villi are formed on the chorion, but not attached to the maternal mucous membrane; it is placentate, but not deciduate. Lastly, the villi and the mucous membrane become so closely attached that they cannot be separated without injury. After the separation of the placenta in the process of parturition, it is found to contain, not only parts belonging to the fœtus, but also maternal structures, the walls of the venous sinuses developed in the original mucous membrane of the uterus forming its outer portion. The changes in the uterus subsequent to birth consist in regeneration of the mucous membrane over the space from which the placenta was removed, and assumption of the usual condition of all the tissues of the organ by a process of retrogressive metamorphosis.

Among the changes which the fœtus undergoes in its development, some of the most interesting (especially in relation to zoology) are those affecting the form and proportions of the body. In a fœtus an inch and a-half long from the vertex to the heel, the head is from one-third to one-fourth of the entire length; the arms are not so long as the spine, and are about the same length as the legs. The forearm is about the same length as the upper arm, and the leg is about equal to the thigh. The hands and feet are very much alike, and the thumb and great toe are not so different from the remaining digits as at a later period. In a fœtus four inches long, the head is one-fourth of the entire length; the arms are longer than the spine by one-sixth of their length, and are a little longer than the legs; the hands and feet are still about the same size, as are the forearm and upper arm, but the thigh is a little longer than the leg. In a fœtus eight inches long, the head is less than one-fourth of the whole length; the arms are longer than the spine by one-fourth of their whole length, and longer than the legs, so that the extremity of the fingers reach down to the knee; the forearm is longer than the upper arm, and the thigh than the leg. At term the head is less than one-fourth of the whole length, the legs longer than the arms, the upper arm longer than the forearm, and the thigh than the leg. The hands and feet are about equal. It is thus seen that the proportions of the body change during intra-uterine life by a law of growth which does not act uniformly throughout the whole period,—the head regularly diminishes in proportion to the rest of the body, but the arms grow proportionally quicker at the middle, and the legs at later portion of the period. After the middle of gestation, also, the proximal segments of the limbs take on a more rapid development than the middle segments.

After birth changes of proportion continue to take place in the same direction as those which have occurred in the later portion of intra-uterine life. These changes were illustrated in the lecture by a series of diagrams, copied from the work of Liharzik, and may be summed up as follows:—The entire length of the adult has increased, on an average, to three and a-half times the length of the new-born infant. The head increases at a comparatively small rate, being in the adult only twice the size in the infant. The proportion of the arms to that of the other parts remains constant, the rule that the distance from tip to tip of the outstretched fingers equals the height being good for all ages. The legs gradually increase in length, as compared with the body; at birth the central point between the vertex and sole is situated at the umbilicus, in the adult a little below the symphysis pubis. While the arms of the adult are but three and a half times the length of those of the infant, the legs have increased to five times the length.

Although, even at birth, some differences independent of proper sexual characteristics are perceptible between the sexes—the female infant being, as a rule, slightly smaller than the male—it is only as maturity approaches that the special distinctions of form and proportion are developed. The chief of these are the following:—The female is smaller than the male, the disproportion between them being greater in the tall than in the short races of men; the female head is proportionately somewhat larger than the male; the thorax, and especially the sternum, is shorter in the female, and the abdomen is longer; the legs are a little shorter, and the female pelvis, as is well known, is absolutely broader and of different form from the male. In all these differences, except the last-named (which is directly connected with the reproductive function), the female retains more of the infantile characteristics than the male. A parallel observation has been made upon the intellectual capacity of the sexes.

PARLIAMENTARY.

On Thursday, March 10, in the House of Commons,

Mr. Buxton asked the Secretary for the Home Department whether his attention had been drawn to a statement recently made by Mr. E. Chadwick before the Society of Arts, that, "taking 104 prison returns, which enabled a comparison of the 20 gaols where the expense and the quantity of the diet were the lowest, the 20 where the expense and the quantity of the diet were the highest, and the 20 where they were intermediate, the results came out as follows:—

	Oz. of solid food per week.	Cost per head per week.	Sick per cent.	Deaths per 1000.
20 lowest prison diets .	188	1s. 10½d.	3	1½
20 intermediate diets .	213	2s. 4½d.	18	3
20 highest . . .	228	3s. 2d.	23½	4½

and whether he would cause any inquiry to be made on the subject.

Sir G. Grey said he had not seen the statement to which the hon. gentleman referred, and he was wholly in ignorance of the sources from which the figures referred to had been taken, nor could he vouch at all for the accuracy of the results; but an inquiry was now going on into the whole question of the dietary in the convict prisons.

The House having gone into Committee upon the Mutiny Bill,

Mr. Cox moved the omission of clause 22, relating to flogging. He denounced this punishment, inflicted for trivial offences, as disgusting and demoralising.

The motion was seconded by Mr. W. Williams.

The Marquis of Hartington said it was the opinion of the most experienced officers that there were in the British army men of a certain class who were insensible to any other punishment than the lash, which was inflicted only in aggravated cases of mutinous conduct, until a man was degraded for offences to the second class. The punishments in other military services were more severe, and cases of flogging were diminishing in our own.

After much discussion, the Committee divided, when the amendment was negatived by a narrow majority, there being 45 for the clause and 42 against it.

Mr. Cox then moved the omission of clause 26, relating to branding.

Mr. Headlam said it was essential that the practice of branding, the process of which inflicted no pain, should be kept up,

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Men of bad character, who deserted, or were dismissed from the army, enlisted in other regiments, receiving the bounty, and there was no other effectual mode of identifying them. This was the simple object of the practice.

After another animated debate the Committee again divided, when the amendment was negatived by 80 to 50, and the clause was agreed to.

It is to us a matter of surprise and regret that no mention was made in the debate of the strong objection universally entertained by Medical officers to the present regulations as to branding. We do not think that the House of Commons can be aware that the regulations state that it is the duty of the Medical officer to "direct," "superintend," and "instruct" a subordinate in the branding of military offenders, or some small amount of the sympathy lavished on the soldier who is held to be degraded by corporal punishment, would have been bestowed on the Professional man whose feelings and self-respect are outraged by being thus made the responsible executioner of the law.

In the House of Commons on Monday, the 14th, in answer to a question by Sir M. Peto on the subject of vaccination registration,

Mr. Lowe said it was quite true that the system of registration under the Vaccination Act was very bad, but it would cost a great deal of money to improve it. Moreover, even when improved, it would not make these compulsory measures effectual to any extent. The great difficulty in working them was due not so much to defective legislation as to the reluctance of persons to prosecute poor people for disobedience to a law, the neglect of which was countenanced by too many who ought to know better. He was sorry, therefore, that he could not hold out any hopes of an improvement in the system.

On Tuesday, March 15, in the House of Lords, the Lord Chancellor said that as the Insane Prisoners Act Amendment Bill had been the subject of a good deal of discussion, the Government thought the best mode of dealing with it in that House was to refer it to a Select Committee.

The bill was then ordered to be referred to a Select Committee.

After a short discussion, the Malt for Cattle Bill was read a second time.

In the House of Commons, Mr. D. Fortescue called attention to the court-martial on Colonel Crawley, and moved for copies of a letter from Colonel Crawley, announcing, for the information of Sir W. Mansfield, the arrest of Sergeant-Majors Lilley, Duval, and Wakefield, on a charge of conspiracy, together with any documents in support of such charge; of the last half-yearly confidential inspection report on the 6th Dragoons, prior to Colonel Shute's resigning the command; and of the first half-yearly confidential inspection report subsequent to Colonel Crawley's assuming the command of that regiment. In explaining his reasons for bringing the subject again before the House—being, he observed, in consequence of what had occurred in respect to it, and of his statement last year, placed in some measure upon his own defence—he did not, he said, call in question the verdict of the court-martial which had acquitted Colonel Crawley, whatever his individual opinion might be. Having stated the facts as they had come to his knowledge, in the first instance, expressing his regret if, through any defective information, he had been led to overstate the case and make it darker than it really was, he reviewed the circumstances of the Mhow Court-martial, and the arrest and confinement of the sergeant-majors, adverting to the feelings engendered by the incidents connected therewith in the non-commissioned officers of the army, and deploring the scandal and mischievous effects resulting from what he termed this unhappy business.

The motion was seconded by Mr. H. Grenfell, who urged the importance of taking into consideration the unsatisfactory framework of courts-martial, and remedying the defects of these tribunals.

General Peel moved as an amendment a resolution that the production of any further papers is inexpedient. He did not want, he said, to debar the House from the proper control of the Army, but he deprecated its interference with the administration and government of the Army, and the constituting itself a court of appeal. With regard to the case of Colonel Crawley, which had done much, he said, to weaken the discipline of the Army, he condemned the manner in which the Government at home had acted in the matter, and especially what he considered the unfair trial to which Colonel Crawley had been subjected, and the attempts made and defeated to obtain a verdict against him.

The amendment was supported by the Márquis of Hartington on the part of Government, and after a long debate the original motion was negatived, and the amendment agreed to.

FROM ABROAD. — UNJUST COURT-MARTIAL IN AMERICA — NEW MODE OF ADMINISTERING IODINE — TREATMENT OF INFLAMMATION BY COLLODION.

A COURT-MARTIAL now being held on Assistant-Surgeon Webster, of the United States Army, exhibits an unseemly clashing of the functions exercised by Medical and combatant officers. Dr. Webster, who is allowed on all hands to have achieved a high reputation for Hospital management, placed in charge of the McDougal General Hospital, was under the natural impression, confirmed by the tenour of the general orders under which he acted and the custom of the army, that patients placed under his charge there could only be transferred thence or disposed of pursuant to the direction of the Surgeon-General or his representative in the Department, the Medical Director. Such, however, seems not to be the opinion of the military authorities; for a combatant officer of even subordinate rank issued an order for the arrest and transfer of a patient who was under Dr. Webster's charge. With this demand the latter refused compliance, not only on the technical ground above stated, but because the patient having recently undergone a severe Surgical operation, the wound from which requiring dressing twice a-day still confined him to the ward, his life might be endangered by removal. However, arrested the man was, and without any examination of his state having been made by those removing him, he was compelled to walk a long distance on a cold, wet night, and when he reached Fort Columbus was declared unfit to be sent to his regiment —apparently the object for which he was arrested. For protesting against the competency of this arrest, and maintaining that his Medical superiors have alone a right to convey orders to him respecting the disposal of the patients under his charge, Dr. Webster is now put on his trial. He has our warmest sympathies while contending for a principle under which alone can Hospital management be satisfactorily conducted.

The vacancy in the section of therapeutics and Medical natural history at the Academie de Médicine having to be filled up this time by a member representing the therapeutical division, two of the candidates have just read papers before the Academy in support of their claims. That of M. Boinet bore for title:—"The means of administering Iodine in a completely soluble state, and entirely deprived of its irritating properties." As perhaps no Practitioner has employed iodine in its various forms more abundantly than M. Boinet, what he has to say on the subject must have great weight. The accidents which were met with when iodine was first introduced, he observes, were due to portions of this substance remaining undissolved and acting as foreign bodies. Some of these at once disappeared when the iodine had been rendered soluble by the agency of potassium. But others arose which were wrongfully attributed to the iodine, such as tumefaction of the mucous membrane, salivation, lachrymation, gastralgia, etc. These, M. Boinet is convinced, really arise from the potassium with which the iodine is combined, for results of an analogous character are observed during the use of other salts having potassium as a base, as chlorate and nitrate of potass. Now, the solubility of the iodine may be still preserved, while the inconvenient effects alluded to may be obviated by substituting *tannic acid* for the potassium. The tincture of iodine of the French codex is not a completely soluble preparation, but may be rendered so by the addition of some tannic acid. But M. Boinet thinks, further, that advantage might be derived from recurring in some sort to the practice of our forefathers of employing iodine in a state of more natural combination, as in the form of burnt sponge, marine plants, natural mineral waters, etc.,—the greater molecular division facilitating the absorption of the con-

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stituent principles. It is only since chemistry has shown us that these various substances contained iodine that we have become aware to what agent they owed their curative properties—properties no less real than those belonging to our modern pharmaceutical preparations. The investigations of Chatin and others have shown that iodine is abundantly distributed throughout organic and inorganic matter, and that there are less goitre and scrofula in those countries where it is most prevalent. For all these reasons, M. Boinet thinks it desirable to resort to these more natural preparations, they being as efficacious and less injurious than those now in use. To this end he has devised a *natural iodine wine* which, while it produces no ill effects upon the digestive organs, is of easy absorption and assimilation. It is prepared by placing in a wooden vessel alternate layers of raisins and of marine plants reduced to powder, until the vessel is filled, and then allowing the whole to ferment during a fortnight, and treating it as ordinary wine. A useful combination of iodine is thus produced by which the affections to which this substance is applicable may be advantageously treated.

M. Robert Latour, another candidate, furnished the Academy with an additional illustration of a practice which he has been inculcating for several years past, though with little effect, as far as imitation is concerned. His leading idea is that inflammation is only a local exaggeration of animal heat, and that among the conditions upon which the production of animal heat is dependent there is one which is under our control, and can be suppressed—viz., the contact of the air with the surface of the body. This is done by covering that region of the body with an impermeable application, which, suspending the calorifying action of the air in that region, relieves the inflammatory action dependent upon this. The case given in exemplification is that of a lady, 19 years of age, who, having long suffered from chronic ovaritis, was suddenly seized with violent peritonitis. M. Latour immediately covered the whole abdomen with a compound of collodion and castor oil. The pulse at once sank to 60, and all went on well. At the end of six days a relapse occurred, but another and more extensive application of collodion was attended with the same excellent result. On the twenty-seventh day the various limbs became successively the subjects of phlebitis, and in all the collodion achieved its usual triumph. Some slighter relapses were met in the same way, the young lady not only recovering, but "during the course, and at the end of these terrible trials retaining all the fresh appearance of youth, and all the brilliancy of her beauty." Surely after this M. Latour must be declared the successful candidate!

THE LEVEE.—At the levée held by the Prince of Wales, by command of her Majesty, at St. James's Palace, on Saturday, the 12th, the following members of the Profession attended the general circle:—Sir Henry Holland, M.D., Physician in Ordinary to the Queen; Sir Charles Locock, M.D., Physician Accoucheur to the Queen; Mr. Cæsar Hawkins, Sergeant-Surgeon to the Queen; and Mr. Ferguson, Surgeon Extraordinary to the Queen. The following presentations took place:—Dr. Archer, Surgeon-Major, Her Majesty's Indian Army, by the Right Hon. Sir Charles Wood, Secretary of State for India; Surgeon C. Finch, Bengal Retired List, by the Secretary of State for India; Mr. Peter Gowland, F.R.C.S., Surgeon Hon. Artillery Company, by Lieutenant-Colonel Lord Colville of Culross; Charles S. Halse, M.D., Surgeon 46th Middlesex Volunteer Rifle Corps, by Lieutenant-Colonel Sir John Villiers Shelley, M.P.; Assistant-Surgeon A. J. L. Hepworth, M.D., R.H.A., on appointment, by Colonel H. L. Gardiner; Staff-Assistant Surgeon John Michael, by the Adjutant-General; Dr. George Owen Rees, F.R.S., by Sir William Dunbar, M.P.; Dr. Charles John Steward, Assistant-Surgeon North Middlesex Volunteer Rifles, by Lieutenant-Colonel Whitehead. The following attended the Levée:—Doctors.—Griffith F. D. Evans, Clarke Rutherford, Watson, Thomas King Chambers, and Scott Alison. Messrs.—S. S. Scriven, G. Borlase Childs, T. Graham Balfour (Deputy-Inspector-General), J. Reeves Traer, White Cooper, J. Moncrieff Arnott, James Paget, Erasmus Wilson, and Haynes Walton. *** In our notice of the former levée, the name of Mr. Henry Stanhope Illingworth was accidentally omitted.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF STAFFORD.

(Concluded from page 294.)

SANITARY CONDITION OF STAFFORD.

At the close of my last paper I stated the population of the borough of Stafford to be 12,532, and indicated that the increase of population from the census of 1851 to that of 1861 was 703. Let us now pass to consider the remaining facts in the sanitary history of this town.

VALUE OF LIFE IN STAFFORD.

I am enabled to lay before the reader the mean value of life in Stafford during ten years, gathered from the records of the Registrar-General referred to in a previous chapter of this history.

Average Annual Rate of Mortality in Stafford, from all Causes, at different Ages, to 100 *Living, during the Ten Years* 1851-60.

	Males.	Females.
All ages	2·278	2·175
Under five	5·970	5·303
Five	·806	·693
Ten	·484	·462
Fifteen	·678	1·094
Twenty	·829	·988
Twenty-five	1·365	1·348
Thirty-five	1·792	1·508
Forty-five	2·004	1·517
Fifty-five	3·135	3·310
Sixty-five	6·935	5·947
Seventy-five	15·503	12·970
Eighty-five or more	26·842	32·069

Compared with England altogether the value of life in Stafford is in favour of the town. The value of life in England at all ages is for males 2·305, for females 2·132, while in Stafford the value is for males 2·278, and for females 2·175. A close analysis of the facts shows that Stafford gains its life advantages in its youthful and most aged populations. Thus, up to the age of 15 years the value of life in Stafford stands remarkably superior; after 15 it declines; at the age of 35 the declination is very considerable, and at 65 years it reaches its extreme, the deaths in Stafford being in the proportion of 6·935 in males, and 5·947 in females, to the proportion for all England of 5·533 in males, and 5·866 in females. After the age of 65 the balance again turns in favour of Stafford.

We may infer from the facts thus supplied that children are less worked and better cared for in this town than in England generally; we may infer that the aged and infirm are also better cared for—a fact which the history of the charities of the place has already suggested; but we may also gather that from puberty to 60—65 the inhabitants are subjected to influences, arising either from occupation, want, intemperance, or disease, which lead to a reduction in the value of their physical life.

MORTALITY FROM DIFFERENT CAUSES.

The average annual rate of mortality in Stafford, from all causes, to 1000 persons living is, in round numbers, 22. This average is based on the mortality tables of the ten years 1851-60.

Average Annual Mortality in Stafford, from Different Causes, to 100 *Living, from* 1851 *to* 1860.

	Males.	Females.
Typhus	·072	·100
Cholera, Diarrhœa, and Dysentery	·081	·087
Other Zymotic Diseases	·297	·213
Cancer	·033	·075
Phthisis	·269	·320
Scrofula, Tabes Mesenterica, and Hydrocephalus	·067	·052
Disease of Brain	·413	·275
Disease of Heart and Dropsy	·124	·147
Disease of Lungs	·256	·252
Diseases of Stomach and Liver	·116	·107
Diseases of Kidneys	·038	·016
Violent Deaths	·083	·039
Other causes	·419	·492

Deaths at Different Ages.—*Year* 1861.
Males, total deaths of, 263. Under 1 year, 44; under 5

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years, 65; from 10 to 15 years, 9; from 20 to 25 years, 13; from 25 to 35 years, 18; from 35 to 45 years, 26; from 45 to 55 years, 28; from 55 to 65 years, 28; from 65 to 75 years, 31; from 75 to 85 years, 28; and from 85 to 95 years, 7.

Females, total deaths of, 243. Under 1 year, 47; under 5 years, 69; from 10 to 15 years, 4; from 20 to 25 years, 12; from 25 to 35 years, 20; from 35 to 45 years, 23; from 45 to 55 years, 16; from 55 to 65 years, 18; from 65 to 75 years, 29; from 75 to 85 years, 23; from 85 to 95 years, 6; and over 95 years, 1.

Births Compared with Deaths of Males and Females—1861.

Males, births of, 368; deaths, 263; births over deaths, 105.

Females—births, 359; deaths, 243; (a) births over deaths, 116.

Water Supply.

The water supply of Stafford is entirely from wells. No attempt has ever been made to obtain a common supply either from the river Sow or other sources. The supply, consequently, in every case, is raised by hand labour, either by the pump or the old-fashioned chain and roller. I had hoped to give an analysis of the Stafford water, but, owing to the fact that the supplies are almost as numerous as the principal houses, this is impossible. Some years since Dr. Wrightson made an analysis of a few specimens, and it was found that in the specimens examined there was a large amount of lime and also a considerable amount of organic matter. The water in most cases, probably, passes through lime, and in all parts of the town I believe it has the character of being hard, but it is fresh and pleasant to the taste.

Drainage.

No attempt—I had almost said—has been made to drain Stafford. Surface drains are seen in every street, but where they empty their contents is a mystery to the stranger. I asked one of my Medical friends in reference to a rapid and full current of drain water running along the leading street, where the current would stop, and his reply was, "It never will stop—there is nowhere for it to stop;" and this is really true, for the water, in fact, is either absorbed by the soil or lies until it has evaporated. Fortunately for Stafford, the soil is porous, and, like a good sponge, sucks up all the moisture. To the better class houses there are cesspools, and these are sufficient to allow of the introduction of the water-closet into the house; but in the lower class houses there is nothing but the common privy, with a very imperfect receptacle, in most cases, for the soil. In short, Stafford is an undrained town, happily placed in respect to its natural resources, but untouched by art, and sharing, as yet, in none of those benefits of civilisation which the engineer has invented and carried out so successfully in other and less favoured localities.(b)

The sewage of the town may be considered in great part as lost, no systematic plan of utilisation having ever been adopted or practised. The town is well placed for the adaptation of the system of receiving the sewage into receptacles provided with a filtering sewer, after the method suggested by Dr. Hawkesley, and of which the accompanying diagram will give a better description than any I could supply in words.

By this method the whole of the effete matters might be retained and utilised, and the purity of the town greatly increased, with little trouble, and at a cost that would soon be regained by the value of the product for the purposes of agriculture.

Climate—Meteorology—Site.

No correct meteorological observations have been taken at Stafford, so that it is impossible to draw any conclusions that can be considered trustworthy respecting the climatic conditions. It might be inferred that the town is generally damp, but, in fact, owing to the porous nature of the soil, dampness is not a serious evil. The site of the town is flat, and, according to Garner, may be considered as having been originally a fertile but rather marshy plain.

Streets and Dwellings of the Poor.

I have already referred briefly to the streets of Stafford. They are not unusually dirty, nor are they wanting in regularity. The sideways are paved with pebbles, and the streets are kept, ordinarily, in a sound and moderately dry condition. This, of course, does not obtain on cattle fair days. The dwellings of the poor are, according to my judgment, very much superior to those in Norwich, and although there is overcrowding, that is much less than in the towns which I have previously described.

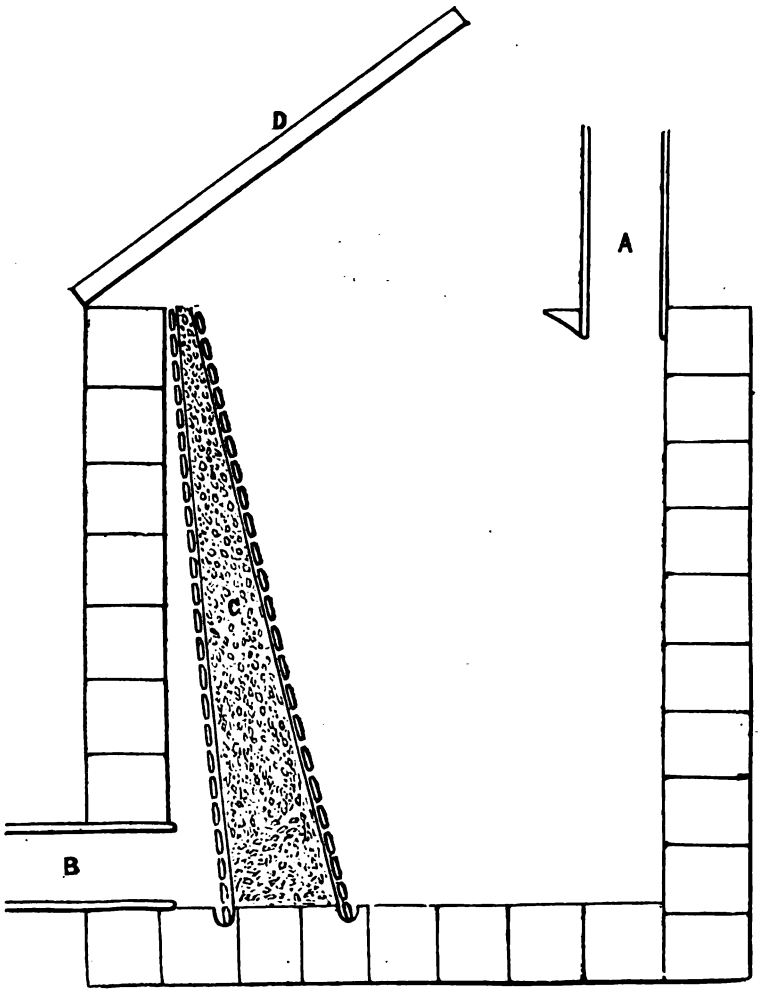
Diet of the People.

The ordinary diet of the poor of Stafford, taking for example one of the manufacturing artizans, a shoemaker, is as follows:—For breakfast, tea, sugar, and bread, with a little lard, treacle, or butter. For dinner, the same; perhaps with a herring, or a portion of cheese, in addition. For tea, bread and

(a) It is worthy of remark, that in the year 1772 the committee of the Stafford County Infirmary made an inquiry relative to the mortality of their institution as compared with that of the Hôtel Dieu and of St. Bartholomew's, St. Thomas's, and the other London Hospitals. The result of their inquiry is thus noted:—

	Deaths.
In the Hospital at Stafford	1 in 18
In the London Hospitals	1 in 13
In the Hôtel Dieu	1 in 5

At that time, aged people, who were not necessarily sick, were received into the Hôtel Dieu, a circumstance which would be rather favourable than otherwise to the Hospital. At this d ▪ about the same relative mortality is, nevertheless, maintained.



Diagrammatic section of a "receptacle" showing: A, the entrance-pipe, or house-drain; B, the exit-pipe to sewer: C, the filtering-screen, consisting of two large slabs or tiles of fine clay, freely perforated, and packed in their interspaces with gravel; D, the lid or cover of receptacle.

(b) I would like to correct a partial error in a previous paper relative to the floods to which the town of Stafford is sometimes subjected (*vide Medical Times and Gazette* of February 27). From evidence I have obtained in a subsequent visit, I learn that when the floods are out the main streets escape. I have also learned, as a further correction, that the hat trade, to which I referred in a previous paper, forms no part of the present industry of the town.

lard, with weak tea. For supper, if any, bread and lard. This diet undergoes but little change. Sometimes, however, especially on the male side of the population, beer is largely indulged in, not usually in a systematic way, but in what may be called "drinking bouts," during which drunkenness prevails to a large extent, followed necessarily by a decrease in the scanty allowance of food already referred to.

Prostitution.

Prostitution, carried out as a profession, is not prevalent in Stafford. There are, in the whole of the town, but one or two acknowledged houses of bad repute, and the number of common prostitutes is exceedingly limited. For this reason, venereal affections are comparatively uncommon, and the extreme effects of syphilis are rarely seen. It is possible also that the small mortality of infants and young children in Stafford is owing in part to the limitation of the specific disorder. At the same time, what is ordinarily considered chastity is by no means a pervading virtue amongst the lower classes. In these it is so common for the females to become pregnant previous to marriage that the fact is hardly thought peculiar.

Public-houses and Beershops.

The number of licensed victuallers having spirit licences in Stafford and in the borough, are no less than sixty, in addition to which there are ten such out of the borough, but so near as to be considered in the town. Of beerhouses, in the borough there are thirty, and out of the borough eleven. There are thus 111 places in all for the sale of intoxicating drinks.

Epidemics and Endemics.

At one time ague was the prevailing disease, and was, in fact, endemical in Stafford. Of late years it has almost entirely disappeared, but neuralgia is still extremely common. Scarlet fever is frequently a prevalent epidemic, giving rise to considerable mortality amongst the young. The ally of scarlet fever, diphtheria, is also now met with in its more serious forms. At the time of my visit, ten deaths had resulted from this disease in the neighbourhood within a few days, five having occurred in one family alone. Measles is less frequently met with than the other epidemic disorders; and the same may be said of croup.

Cholera visited Stafford in 1832, but caused only one or two deaths. In 1849 it again visited Stafford, causing 2 deaths. The first death occurred in the Infirmary, on January 10, when a labourer, aged 27 years, died in sixty-two hours after the attack; the other case was recorded on October 27, at St. Chad's-place. From diarrhœa, the deaths were 4. In 1854, 2 deaths again occurred, and 3 or 4 from diarrhœa. The disease on none of these occasions assumed the epidemic form.

Typhoid and typhus fevers are both met with, and this rather frequently. Thus, in the year 1862, 52 patients, recorded as suffering from fever, were admitted into the Infirmary, 13 of whom died. The fevers are confined to the lower portions of the town, and rarely assume the epidemic character.

Small-pox is a disease of rare occurrence; there has been no serious outbreak of it for many years past until this month, when it is presenting itself in the epidemic form.

Vaccination.

Vaccination is conducted to the best of their power by the Medical officers of the Poor-law districts. Two shillings and sixpence per case is paid for the operation. The operation is performed in each place in the district every week, so that the process should be well kept up. Unhappily the prejudices of the people are a persistent and formidable obstacle to the Medical men.

Etiology of Stafford.

The subsidence of the disease ague, and its replacement or continuation by neuralgia, is a very singular etiological fact, and is probably due rather to an improvement in the drainage of the lands around Stafford than to the improvements in the town itself. The neuralgia, which is so common, indicates the still remaining deficiency of drainage. Considering the hardness of the water, the marked absence of cases of stone in the bladder is singular, leading, as it does, to the inference that the presence of lime in quantity is not a common cause of calculus, as some have hastily surmised. At the same time, though calculus is rare, it does occasionally present itself in special cases in an extreme form. In St. Mary's churchyard at Stafford the friends of a sufferer from stone have recorded the fact in a manner rather unique. The following is a copy:—

"SACRED
TO THE MEMORY OF
WILLIAM HANSON,
LATE OF HANBURY, IN THE COUNTY OF STAFFORDSHIRE,
WHO DIED IN THE GENERAL INFIRMARY OF STAFFORD,
MARCH 6, 1812,
AGED 63 YEARS,
AFTER AN OPERATION, BY WHICH A STONE WAS EXTRACTED
FROM THE BLADDER OF THE SIZE AS UNDER."

Then follows a drawing of the calculus itself, cut in the stone. Dr. Day, who was kind enough to take the dimensions for me, finds it measures seven inches in length by four in breadth. It is thus half an inch broader than the calculus retained in the Norwich Hospital, and two inches and a-half longer. On referring to the Infirmary records, it appears that the stone was extracted by Mr. F. Hughes, father of Mr. Robert Hughes, the present Senior Surgeon to the Infirmary, and that the patient died. Unfortunately, no note has been kept respecting the nature of the stone or the operation.

The presence of cases of bronchocele connects itself with a theory—which is strongly supported by various evidence, but especially by the effects of the water of the Durham Gaol in the year 1843—that the excess of lime in the water has an intimate relationship to the disease in question. I could not, however, glean any very satisfactory proofs on this question; the evidence is rather suggestive than affirmative.

The absence of cholera in the epidemic form after the occurrence of sporadic cases on three occasions is an interesting circumstance, and admits, I think, of being simply explained. The drainage of the town, although, as we have seen, defective, is safe in this respect—that it does not flow through sewers in the neighbourhood of wells, but is distributed through the porous surface on which the town is built; while the water comes through the limestone at greater depth. Hence there is no large admixture at any time of the excreta of the sick with the water supplied to the healthy. Stafford is not the only town that has escaped cholera for this apparent reason, and it contrasts strongly with those towns where an imperfect system of sewers has intersected equally imperfectly built wells, and where the contents of the sewer and well have had no alternative but to come together.

Regarding the other diseases: rheumatism—and its sequel heart disease—may be traced to imperfect diet, and, perhaps, to the still indifferent drainage of the houses of the poor, through which they are exposed to damp and cold. Consumption has its chief origin here, as elsewhere, from bad air; and the prevailing epidemics of scarlet fever and diphtheria are to be sought for, as regards their origin, in the transmission of specific organic poisons.

MEDICAL BIOGRAPHY OF STAFFORD.

Dr. Erasmus Darwin, M.D.—Dr. Darwin has been claimed as a resident of Stafford, and he was, unquestionably, one of the Physicians to the Infirmary, his name appearing on the books as having been elected in the year 1776. The great author of the "Botanic Garden," "The Loves of Plants," and the "Zoonamia," was, however, a Lichfield man, and his name and history are so identified with that place, that I must, when I write his life, place him amongst the worthies of Lichfield, not of Stafford.

Dr. William Withering, M.D.—Dr. Withering, the famous botanist, was elected Physician to the Stafford Infirmary in 1768, and held the office for six years—viz., till 1774. It would appear that Withering, who was born, in 1741, at Wellington, in Shropshire, and whose father was a Medical man in practice there, came to Stafford immediately after his graduation in Edinburgh. His attempt at practice in Stafford was unsuccessful, and he moved to Birmingham, where he became widely known as a Practitioner and a man of science, and where he remained until the close of his career in 1799. We shall take up the particulars of his active life in the history of Birmingham.

Dr. Thomas Fowler, M.D.—Dr. Fowler, better known as the presumed inventor of Fowler's solution of arsenic, and who was born in York in 1736, and graduated in Edinburgh in 1778, was elected Physician to the Stafford Infirmary in 1783. The name of Fowler has been so intimately connected with the solution known as the *Liquor potassæ arsenitis*, that a brief note of his connection with that preparation cannot but be interesting. In plain, then, at the time when Fowler went to Stafford, there was being introduced into England a

solution called "Dutch Drop," or "Tasteless Ague Drop." This solution was tried in Stafford in several cases of the prevailing disease, and was found successful. At that time, Mr. Hughes, the grandfather of the present Mr. Robert Hughes, was House-Surgeon to the Stafford Infirmary, and he, having examined the "drop," determined that it contained arsenic. Upon this he set to work to find a means of dissolving arsenic, and succeeded by the use of potash. He showed his solution to Dr. Fowler, who tried it, adopted it, and reported upon it favourably, upon which the medicine came into general repute under the name of Fowler's solution. With the other applications of this solution Fowler had little to do. It was in ague only that he saw its value. Dr. Girdlestone, of Yarmouth, was the first Physician who used the solution in lepra. Dr. Beddoes was the first who used it as a tonic in phthisis. Mr. John Jenkinson, of Oxford, was the first who employed it in chronic rheumatism, and he was soon after followed by Samuel Fothergill, a London Physician, who resided in Leicester-square. Dr. Kinglake and Mr. White, of Bath, finally established the value of the arsenical solution in lepra, psoriasis, and other diseases of the skin. It is but just to the name of Mr. Hughes that this exposition of the discovery of Fowler's solution should be given, and it is but equally just to the other members of the Profession, named above, that the credit of their applications of the remedy should be awarded to them respectively. We are accustomed to speak of Fowler's solution as though it belonged entirely to him, whereas, when all the facts are told, he had perhaps less to do with its invention and with the discovery of its virtues than any other Physician whose attention was turned to arsenic as a remedy. Thus, often does mere accidental position give name and history, and it would be but just, in rectification of a long-prevailing and great error, to call the well-known arsenical compound from this time forth "Hughes's solution."

Independently, Fowler was unquestionably an able man. His contemporaries speak of him as exceedingly cautious in observation and record. He was one of the first to study the effects of digitalis in the treatment of consumption; and he published a paper on "Galvanism," in which he endeavoured to show that dead organic structures, when subjected to galvanism, do not undergo putrefaction so readily as when they are left untouched. As I have already stated Fowler commenced as a Physician in Stafford in 1783. He continued there, doing a large and lucrative practice, until 1791, when he returned to his native place, York, and lived in partial retirement, contributing only now and then brief communications to Medicine. One of these, on the "Effects of Tobacco," attracted considerable notice. He died at York in the year 1801.

Dr. Edward Knight, M.B. Cantab.—The only remaining name on my list of celebrities is that of Dr. Knight, who was elected Physician to the Infirmary in the year 1808; who practised in Stafford upwards of sixty years; who is remembered by a good many of us still, and who died on June 9, 1862. Dr. Knight was one of those who bridged over the old and new schools of Physic. In his early life he was one of the heroes of the famous and terrible Walcheren expedition. He was ultimately Deputy-Lieutenant of the county of Stafford, and a county magistrate. He added nothing whatever to the literature of his Profession, but he was an accomplished man, and, among other of his attainments, he knew how to play on the fiddle. He was, I am told, one of the best amateur fiddlers the county has produced, understanding music deeply, and combining with natural art those studied graces which mark the true musician.

The Medical History of Stafford is concluded.

Note on Hospital Mortality.

Mr. Henry Thompson, in last week's *Medical Times and Gazette*, blames me for allowing seven weeks to pass before replying to his previous letter. I might blame Mr. Thompson, in my turn, that he allowed only seven days, and that in his haste he could not have read what I had written. If he will refer to p. 262 of the *Medical Times and Gazette*, he will find that his statement of my having calculated the mortality from lithotomy—"from adult cases alone [20 years and upwards]"—is *not* correct, inasmuch as I only excluded children under 10 years of age, and this for the obvious reason that the children under that age operated upon in London were nearly three to two as compared with those operated upon in Norwich.

To his second suggestion, that female cases are excluded from London practice, I may state that, granting all the cases in the London Hospitals were males, and all the 41 cases marked females in the Norwich list were over 10 years of age, the difference in the results against Norwich is only 0·22 per cent. The reader will see that this really does not materially affect the question either way. But then we have 16 cases of females in London which I unintentionally, and not for the motive which Mr. Thompson assigns (a motive, by the way, which I should have been the last man to have attributed to him), omitted to name, and what is the story they tell? That of the 16 cases, only 1 died. The result is good by comparison with the operations on males in London; but when we turn to Norwich, we find that the good is *better*, for there 41 females were operated upon, and only 2 died.

Respecting the statement of Mr. Thompson, that adults in London are not to be compared for health and strength with those in the country, I am simply at issue with him. I, too, "know both classes well." I have seen nearly ten years of active country practice, and the same of London, and my experience is opposed to Mr. Thompson's generally, and particularly with regard to the poor of London and of Norwich. Presuming, indeed, that I am wrong as to the cause of difference of mortality, I am sure Mr. Thompson is not right in placing it on the character of the patients operated upon. That hypothesis is convenient, I know, and in Medicine as well as Surgery is too popular. "The disease would have been cured, only the patient had such a bad constitution." Who does not recognise the phrase? Who does not understand how meaningless it is,—despite that it often answers?

Mr. Thompson commits an error in stating that the eighty cases of lithotomy, with two deaths, performed at Norwich, were performed by one Surgeon; forty truly were so performed, but in the other forty three Surgeons were concerned. This is an important point to remember correctly, because it excludes the idea of simple manipulative Surgery, and of one particular method of operation, and of selection of case, and of individual experience, as causes of success.

Only one other point in reference to Mr. Thompson. He throws it at me that I have not explained why, under almost all circumstances, the mortality in children is so nearly the same after lithotomy. This is, indeed, more than I expected. It never occurred to me that a man, so intelligent as Mr. Thompson, should ask me to explain to him, and to the intelligent members of our Profession, so simple a problem. Is it not a fact of daily, hourly experience that during those years of life when the body is being built up, what is vulgarly called the vitality, or, in other words, the regenerative force through which life is manifested, is most active and most resistant to accidents from without? Do we not know that children take chloroform with a degree of safety that may be considered absolute, when compared with adults,—that they live through epidemic disorders before which the full-grown man would inevitably succumb,—and that to whatever depressing influence they are subjected, they return it with a reaction which is never observed in after life? I state candidly to Mr. Thompson that I think the mortality of children, under 10 years age, from lithotomy, or any similar operation, would be influenced by little short of anything less than subjection to an atmosphere that was directly poisonous. But when we come to men the case is very different. In the child the waste is ahead of the supply; in the matured man, the supply is ahead of the waste. Hence when the child receives a deleterious agent into its organism, it throws it off: the man retains the agent. And it may be that such retention, modified by years, follows a fixed law, determining the mortality.

Herein, then, I believe, lies the cause of that acknowledged superiority of the country over the town practice, in the cases of adults. Mr. Thompson may attribute the difference to manipulative Surgery—selection of case—or condition of patient. I defy him to run any one of these home. I assert that they all demand exclusion from the argument; and that the only cause of the difference that cannot, at this moment, be excluded is the difference in the Hospitals.

In reply to Mr. Holmes: I met his first objection very fully in my last note. The basis of the success of the Norwich Hospital rests, I believe, unquestionably on the large amount of space, and on the perfect ventilation which, from the first, was given to that Hospital. With reference to ventilation, I think, with all respect to Mr. Holmes, that the Norwich Hospital is better ventilated than any of the Hospitals he has quoted; first, because the ventilation is natural; and, secondly, because the construction of the Hospital allows of a more thorough admission of fresh air and of escape of impure air. But there are other favourable agencies also at work at

Norwich, which, though secondary, are of great importance in recovery—I mean the lesser contamination of the air, and the greater quiet and freedom from intrusion that prevails. In these regards Norwich Hospital approaches almost a private house; and by so much its ventilation is comparatively superior; added to that, the air is not impaired in its quality by passing over, for a majority of days in the year, a seething population like that which surrounds the greater number of London Hospitals.

As regards the data from which my deductions were drawn, I will state them definitely; and this is the more requisite, because Mr. Holmes insinuates, in the absence of a better and more courteous argument, that I have misrepresented facts. When I was at Norwich I was supplied with the official records of seven years, viz., from 1856 to 1862. These were prepared, printed, and published as the *bonâ fide* annual reports of the Hospital. They had passed the board of management; they had passed the Medical staff; they bear on their second page the signature of the chairman of the Hospital board, and have never, as far as I know, been challenged. They are most circumstantial, and I could not, in any way, rely on more positive data. In the Report of 1862, the cause of death in every case is supplied; the details of operations are tabled; and the percentage is drawn out. *From that record my facts are copied absolutely.* Forty-four cases are reported as having died that year. Of these, twenty-three are Surgical; the rest Medical. The percentage of deaths on the whole of the Surgical cases I find to be precisely 2·50; the percentage after Surgical operations, 3·55; the percentage altogether, including Medical and Surgical cases, 5·09. I have no other data than these official data from which to draw my conclusions, and I would accept no other, because if these are wrong in one particular they may be wrong in all.

The same fact holds good with regard to the disease pyæmia. Thinking I might have missed this word, I have not only examined the official records again myself, for the seven years to which my statement referred, viz., from 1856 to 1862, but I have submitted them to another gentleman [I should be happy to submit them to Mr. Holmes himself], and I reassert that the word pyæmia occurs but once. It marks *one death* in the year 1862. If Mr. Holmes refers to my paper of January 16, p. 67, he will see that I did not refer to the year 1863, for the record of that year was not in my hands. I may further add, as matter of fact, that Mr. Williams in his note to me did not refer to the year 1863, nor did he tell me that there had been any *fatal* cases from pyæmia previous to that year, other than were given in the official documents, neither did he intimate that the official documents were wrong. He simply stated that there had been one or two cases of pyæmia, and also of erysipelas, and my impression from his note was that these cases had not terminated fatally. Had the official documents told me that there had been fifty cases of pyæmia, I assure Mr. Holmes I should have stated that fact as readily as any other, and I assure the Profession that on the official evidence before me—which evidence I am bound to prefer to any other—my statements in this Journal for January 16 are literally and absolutely correct. So soon as the printed account of the Norwich Hospital for 1863 is in my hands I shall deal with it according to the facts it presents.

Out of respect to Mr. Thompson—whom I have long known—I have replied to his strictures; and out of respect to myself on statements of fact, I have replied to Mr. Holmes; but in the future, with all desire to be courteous and considerate, I must decline entering into controversy on points connected with these papers on the Medical History of England. The necessity for this course will be obvious when I state that nearly every day brings in some communication, which I am requested, now or in the future, to notice either specially or generally, and that already I have received upwards of seventy such communications. To answer every one were physically impossible; to answer a few only, were unfair; to say nothing of the encroachments that would be made on the space of the *Medical Times and Gazette*.

UNIVERSITY OF LONDON.—MASTER IN SURGERY.—The following gentlemen have just passed the examination for the degree of Master in Surgery:—Hewlett Richard Whitfield, M.D., King's College; Rivington Walter, M.B., B.A., F.R.C.S. Eng. Exam., London Hospital; Taaffe Rickard P. Burke, M.B., F.S.C.S. Eng. Exam., St. Bartholomew's Hospital. This was the first examination for the above degree in the University of London.

FOREIGN CORRESPONDENCE.

AMERICA.

NEAR THE RAPIDAN, February 14.

SINCE my last communication (of date December 17) was despatched to you, until a few days ago, the opposing armies have been peaceably encamped, with the Rapidan river as a boundary line to separate them. December was spent by the troops in fixing up their winter quarters,—January in enjoying and, at the same time, improving them. Comfortable quarters they are too. Our men were experienced campaigners when they settled here, for this, to many of them, is the third winter they have spent in the field. They know from personal experience what are the essentials of health and comfort in winter quarters. They know not only what had best be done, but also the best manner of doing it; hence no time was lost in useless experiment—there was no construction, destruction, and reconstruction, but everything steadily progressed towards perfection, from the time the first tree was felled until now that a vast and substantial wooden city has grown into being, with its Hospitals and churches—even its ball-rooms and concert halls. Every one takes a pride in the comfort and appearance of his quarters—in fact, a rivalry seems to exist among the men on this subject, and, in consequence, improvements are constantly being made. Passing from men to officers, we find Surgeons planning, erecting, embellishing with an energy, born, no doubt, primarily of a desire to render their sick as comfortable as they possibly can, but I have as little doubt that this same rivalry contributes in no slight degree to the perfection of camp police and the—even elegance of their Hospital arrangements.

The men's quarters are arranged in streets, which run at right angles to those of the officers. The streets are broad and clean, with, on either side, a pavement five or six feet broad, composed of split logs overlying the deep trench which drains the site on which the huts are built. Young pine trees are planted at regular distances along the side of the pavement, and these give quite a picturesque appearance to the quarters. Planked pathways, hedged in many instances at the sides by pine branches after the manner of boxwood in a garden, run everywhere through camp, so that the men, even in the most rainy weather, are preserved from contact with the Virginian mud. The huts are each built of a size to afford ample accommodation to four men. They are wind and weather proof, with a commodious fireplace and plank flooring. Behind these company streets are the quarters of the officers, and still further to the rear the regimental Hospital. It and the out-houses connected with it are surrounded by an evergreen fence, rendered irregular in front by the arched gateway which gives one entrance to the grounds. The Hospital is the ordinary army Hospital tent, capable of containing comfortably six or eight patients. It has a fireplace built of stone and wood attached to one end, in which some huge logs are cheerily burning, and diffusing around an agreeable warmth. The flooring, raised from the ground ten or twelve inches by means of logs, is formed of lumber, cut perhaps from the trees which but a short time ago hybernated on the very site now occupied by the Hospital. A dilapidated saw-mill in the neighbourhood was put into working condition by the Quartermaster's Department, who now "run the concern," and from it the Medical officers, after the usual amount of delay and red tapeism, obtained sufficient to floor and build bedsteads in their Hospitals. From the tent narrow plank pathways lead to the various outhouses in the enclosure, one of which is the kitchen; another forms the dispensary and private quarters of the Hospital steward, a third is the sink or privy, furnished with easy seats, that the exertion of going to stool may be rendered as little fatiguing as possible. These regimental Hospitals have all a well-furnished larder; poultry, farina, Boston crackers, potatoes, onions, carrots, turnips, beets, etc. Fresh oysters are furnished daily by a purveyor at the nearest railway station. Wines, lemonades, preserved fruits, etc., can be obtained from the United States Sanitary Commission. In fact, never before have field Hospitals been brought to such a state of perfection as they have now attained.

In addition to these regimental Hospitals, division Hospitals have been organised in the vicinity of camp. When the former become crowded, a few of the patients are withdrawn for treatment to the latter. Many complaints have of late appeared in the daily papers concerning the accommodation

presented by field Hospitals, and the negligence of nurses and attendants connected with them. Those who made these complaints could certainly have known but little of the matters on which they wrote. I know from personal observation what these division Hospitals are—what the food, and what the attention and treatment received by their inmates; and I can readily assert that it would be difficult to find more comfortable, and at the same time better—hygienically considered—quarters for sick men than are to be seen in the division Hospitals now existing north of the Rapidan. Men vastly prefer—at least, many of them—being nurses to carrying and using a musket, and since their position in Hospital depends solely on the care and attention they pay to the sick—the sick *are* cared for.

The division Hospitals of the Second Army Corps, situated in the neighbourhood of Brandy Station, from the elegance of the style in which they are got up, resemble far more pavilions built for some rural *fête* than the cheerless notions one might preconceive of a field Hospital raised upon debatable ground. All the tents are floored, and furnished with fireplaces. Requisitions were sent in for stoves, but they were disapproved. In front of the tents are promenades, garden plots, evergreen bowers, tasteful fancies executed in moss. One can scarcely realise that this ground in December was a thick-set forest, yet so it was. This Hospital can accommodate from 250 to 300 patients. To each of its three divisions are attached a well-furnished sanitary store-room, a commodious kitchen, dispensary, and sinks, and to the whole is added a post-mortem room, where the bodies of fatal cases are embalmed by the Medical officers, in order to preserve them, if required, for transmission to friends in the north. At some little distance from the main structure is a pest-house for the small-pox cases that may occur in the corps. The establishment is altogether a complete affair, and certainly sufficient praise can hardly be bestowed upon those connected with it for the energy and taste they have evinced in its construction. They were rather chagrined, however, when, on January 29, an order was received from the Secretary of War, through the Surgeon-General's office, requiring the sick of the army to be sent to Washington for treatment in the Hospitals there. They would have much rather retained their sick now that they had secured, by their own industry, accommodations of a character so complete; but there was no help for it—the order had to be obeyed. The sick left their country quarters one rainy morning, two hours before daybreak, and after a tedious and exhausting journey reached Washington in the evening. It was at first considered that an advance was in contemplation; then it was supposed that the sick had been disposed of as a precautionary measure, lest, tempted by the favourable weather and state of the roads, the enemy should be induced to beat up our quarters. Some Surgeons looked to the state of the Washington Hospitals for an explanation. At that time there were, in and around that city, twelve thousand beds, of which seven thousand were untenanted.

The rate of sickness during the last two months has been, as it usually has been in this army, remarkably small, varying from two and a-half to five per cent. These have consisted of fever, bronchitis, and scurvy manifested through the medium of camp diarrhœa, chronic rheumatism, and debility. A few cases of small-pox have occurred, but none of them have originated in the army. All the men so affected have lately come from Hospital in Alexandria or Washington, where, I believe, the disease is rife. The measures adopted in the army with reference to the isolation of these cases—their aggregation at one point, the pest-house mentioned above—have, as yet, been successful in preventing any diffusion of the variolous poison.

The following figures may give you an idea of the rate of sickness and mortality prevailing in this army during the last two months. The camps from which these ratios have been deducted contained an average strength present during the month of December of 12,000 men; during January, 11,900.

	December, 1863.	January, 1864.
Daily rate of sickness per 1000 men present	36·77	48·02
Death rate per 1000 men present during the month	2·48	2·44
During the month of January, 1864,—		
The percentage of fever cases among sick was .		10·74
The percentage of deaths among the fever cases		2·28
The percentage of diarrhœa among sick . .		27·95
The percentage of deaths in diarrhœa cases .		2·55

On February 6, we made a demonstration on the Rapidan; we crossed a small portion of our force at Morton's Ford, and had a smart skirmish with the enemy. 200 were wounded, and, what is remarkable, only ten men out of the whole number struck were killed upon the field. No bridge was laid across the stream, and as the water was deep and the banks precipitous, it was found impossible for the ambulances to reach the field in order to bear off the wounded. This being the case, the labour devolved entirely upon the stretcher carriers, who, although they had the darkness of a moonless and cloudy night to impede them in their search, did not leave a single wounded man on the south bank of the river. No operations were performed on the field on account of the depressed state in which the wounded were found. Chilled, and still in their wet clothes, it was considered the most advisable course to hurry them off to the rear, to the Hospitals of the Second Army Corps, where they now are, comfortable as they could wish to be. Dr. McParlen, the lately-appointed Medical Director of the Army, inspected their condition shortly after their arrival there, and so highly satisfied was he that he considered it would be unjust to the wounded to order—as has hitherto usually been the case after a fight—their removal to Washington Hospitals. Dr. Howard also paid the wounded a visit, on the look out for chest wounds suitable for his hermetically sealing mode of treatment, but I believe his search was unsuccessful.

The operations rendered necessary and performed after this affair at Morton's Ford were five amputations of the thigh in the middle third, one of the leg immediately above the ankle, two of the arm, and one of the shoulder-joint. Two cases of excision occurred; one of the elbow, the other of the shoulder-joint, both of which are as yet promising well (six days after operation.

Seven deaths from wounds have occurred; but of the operative cases, one only has succumbed—a thigh amputation.

Recruits are joining us daily from all parts of the North,—but such recruits! The necessity for a thorough scrutiny into all the branches of the recruiting service is severely felt by the Medical officers with the army. We in the field are aware that, according to the army regulations, every man before being accepted as a soldier has to undergo an examination, to settle whether or not he is physically qualified to bear arms and to use them; but, when we look at the men forwarded to us to fill up our ranks, we hope sincerely for the credit of the Profession that in many instances no such examination has taken place. Here are a few samples from a batch sent to one regiment lately:—

Cataract affecting right eye.

Strumous corneitis, with so much opacity that the man sees daylight only.

Syphilis—deep ulceration of fauces—arms densely crowded with rupia.

An imbecile—an epileptic—a well-marked case of phthisis—rupture.

A boy, certainly not over fourteen years of age, seduced from school by the recruiting pimps.

An old veteran, who saved his leg after the battle of Antietam at the hazard of his life.

Ask these men if they were examined by a Surgeon before enlistment, and they will tell you that they do not know anything about the matter. Most of them, like the veteran instanced above, were intoxicated at the time. *He* came from his country village to New York city, in order to make some endeavours towards obtaining a pension—met with some sympathising friends who, no doubt, would aid him, who, however, in the first place, persuaded him to take something. This he did, and on recovering the use of his senses, found himself once more a soldier. Proceedings such as these deserve to be investigated. In the British service Medical officers grumble because they are called upon to pay the expenses of a rejected recruit. Well would it be for America were such a law in force at present.

The regiment from which the above examples are taken obtained 500 recruits; from these (I must, at the same time, state that this is the worst case of the kind I have met), ninety, on reaching Virginia, were pronounced unfit for service. Eighteen per cent. useless; indeed, much worse than useless! Eighteen per cent. of the bounties paid by the U.S. Government thrown away in the purchase of incumbrances! Eighteen per cent. of the money paid by a State, that volunteering may be promoted to an extent that shall preserve its people from the draft, swallowed up by recruiting agents without tending in the slightest degree to effect the

object in view! This should not be. The regulations should be to the very letter adhered to, and deviations from them punished with marked severity. The hanging of a few of the first delinquents exposed would render the game too dangerous to be so extensively played as it now is.

These recruits, on reaching the field, are immediately pruned of all their useless members. Very few men are discharged for disability now; they are turned over to the invalid corps, to serve out their term of service. This invalid corps, organised in 1863, consists of two battalions. The first is composed of men unfit for field service, but capable of performing garrison duty; the second, of those unfit even for the light duties required of the first, but capable of acting as nurses, orderlies, etc. This corps is recruited, first, by men from the field disabled from active service by wounds received in action, or disease contracted in the line of duty; second, by men from the general Hospitals and convalescent camp; third, from those honourably discharged on account of disability, but who wish to re-enter the service.

Some time ago it was decreed that those Medical officers of the United States army, and of the Volunteer Corps of Surgeons, who had been on active service in the field for two years, might, if they wished it, be withdrawn from the army to be placed in charge of the military Hospitals now so common in all the great cities of the States, their place in the field being filled up by those whom they relieved from Hospital duty. This is but fair to those Surgeons who have been so long campaigning. They are but few who, after two years of the excitement of active military life, do not long in secret for a short period of repose in the unruffled quiet of civil life. Dr. Letterman, who filled so ably the position of Medical Director of the Army of the Potomac during all its many vicissitudes of fortune, was among the first to take advantage of the relief proffered. His position in the service has been well supplied by one to whom war is not new. His successor, Dr. McParlen, was formerly Medical Director of Pope's Army of Virginia. There are many Surgeons who will embrace this opportunity of leaving the field, not because they are tired of it, but because the pay—strange as it may appear—is greater when on Hospital duty. They have, perhaps, a family to support, and, were they to neglect this opportunity of improving their income, they would consider themselves inattentive to the duties they owe to those dependent upon them. To officers on active service Government furnishes fuel and quarters—fuel: the wild woods of Virginia; quarters: a share (one-half or one-third, as the case may be) of a small tent, which, peradventure, may leak deucedly. On the other hand, to officers located in cities, commutation is paid for fuel and quarters, and this commutation amounts to as much as forty to sixty dollars a month. This, by officers with the army, is jocularly styled the premium paid by Government to induce men to stifle warlike ardour, and remain at home in peace. Mr. Grimes, of Iowa, in Congress, some days ago, made an attempt to reduce the pay of officers not on duty with the army, but he failed in his object. His bill did not refer to Medical officers in particular, but they, of course, were included in it.

Of grievances in the Army Medical Department here the junior members have but little to complain; but there is one in particular that is keenly felt by the seniors—those occupying high positions in the army. It is this,—rank and pay do not increase with increased responsibilities. For instance—the Surgeon who has under his charge 150 men, the remains of what was once his regiment, has the rank and pay of a major of cavalry; the Surgeon-in-Chief of a division consisting of twelve or fourteen regiments is major also; the Medical Director of a corps, having under his supervision thirty or forty regiments, has the same rank and pay; lastly, the Medical Director of the Army of the Potomac is—only a major. This, surely, on the part of the Government is but a piece of forgetfulness, requiring only to be brought into notice to be remedied. Matters do not exist thus in the other departments of the service. A corps quartermaster ranks as lieutenant-colonel; the quartermaster at head-quarters of the army, holding a position corresponding to that of Medical Director in the Medical department, has the rank and pay of Brigadier-General. Although the nation is, and has been since the commencement of the war, so occupied with subjects of much more vital interest than the proper recognition of the position held by many of its Medical officers, still it is to be hoped that ere long Congress will take the matter in hand and place the Medical on a footing similar to that held by the other departments.

Concerning the Hammond court-martial, nothing has, I believe, as yet transpired. Some time ago the matter was much talked over by the Medical men in the army, the opinion having the majority of advocates appearing to be that the Surgeon-General was the victim of a clique inimical to him, and that the inquiry would result in nothing to his disadvantage.

Being in winter quarters and having no great press of official business on hand, the Medical Department is occupying a few of its members in examining those officers who, during the preceding campaigns, have shown any Professional incapacity. These, however, it gives one pleasure to remark, form but a very small percentage of the Medical force in the field.

In conclusion, I may remark that a new form of stretcher has been invented and brought under the notice of army Surgeons by Dr. Watson, 6th Michigan Volunteers. Favourable reports concerning it have been given its inventor by all who have seen it; and in consequence he intends to endeavour to obtain its adoption by the Government in place of the uncomfortable poles and canvas now in use. His is a very complete affair, being not only a stretcher, but a bed or a double inclined plane, as occasion may require. It is durable, and constructed in pieces, which are all of a size; so that should one piece give way, it may be replaced, and the machine, as a whole, be preserved indefinitely.

GENERAL CORRESPONDENCE.

ARMY MEDICAL DEPARTMENT.

[To the Editor of the Medical Times and Gazette.]

SIR,—The deplorable condition to which the Army Medical Department is now reduced is well exemplified by the inability of the Director-General to obtain candidates legally qualified to fill existing vacancies in this branch of the public service.

This difficulty has been experienced with increasing urgency during the last four years, partly in consequence of the provisions of the Royal Warrant of 1858 having been frequently set aside, and partly because even the warrant in its integrity, although a great boon to Army Medical officers, did not contain sufficient advantages to induce men of high professional attainments, whose prospects of success in private practice have been annually increasing, to enter a service where promotion to the higher grades was slow, and where the senior members were very inadequately remunerated.

I do not propose in this letter to enter on and discuss the many causes which, collectively, now deter Medical men from entering the Department. I will confine myself on the present occasion to two of the most important, which, if speedily removed, would tend to give popularity to the service, induce young Medical men of high professional acquirements to compete for existing vacancies, and remove much of the discontent now so unfortunately prevalent among Army Surgeons; of whom nineteen out of every twenty cannot possibly obtain Departmental promotion. I allude to increase of pay for Surgeons, and earlier retirement, with increased full and half-pay, for Surgeons-Major.

I may here state that I have recently visited many of the Medical Schools in London, discussed the subject with many of the senior Medical students and Medical men now unemployed, and undecided on their future professional career, and have almost invariably found their chief objections to entering the Army Medical Department to be slow promotion, long service before retirement, and inadequate full and half-pay for the higher grades.

1. Increase of pay for Surgeons and Surgeons-Major. The rates of pay for Assistant-Surgeons are generally admitted to be equitable, but on promotion to the rank of Surgeon he receives but 15s. per diem until he completes fifteen years' service, when he receives 18s. This is continued until he attains the rank of Surgeon-Major on completing twenty years' service, when he receives 22s. per diem, and no further increase until he completes twenty-five years' full pay service, when he obtains 25s., or can claim retirement on half pay at the rate of 18s. 6d. per diem, of which almost every Medical officer avails himself.

It will be evident that these rates of full and half pay are disproportionate to the periods of service, especially when taken in combination with the broken-down health which long tropical and semi-tropical service almost invariably produces, and which generally renders the Army Medical officer

unable to add to his income on retirement by the practice of his Profession.

2. Earlier retirement with increased half pay. Constituted as the Army Medical Department is at present, and taking the average number of Assistant-Surgeons annually promoted as twenty, Assistant-Surgeons now entering the service cannot obtain promotion under from twenty to twenty-five years' service, as the great majority of Inspectors and Deputy Inspectors-General and Surgeons are comparatively young men, consequently for the future fewer vacancies than heretofore, in a given period, will occur in the senior ranks.

With such prospects before them—neither overdrawn nor coloured in the slightest degree—is it surprising that junior Medical men prefer the chances of success in private practice either at home, in the colonies, or in the mercantile navy, and almost contemptuously decline the overtures made to them to enter the Army Medical Department at present?

The interests of the public service imperatively demand that a remedy for this unsatisfactory state of our Department should be promptly applied, and I believe the most effectual means of doing so would be to enable Medical officers of twenty or twenty-one years' service who have no prospect of promotion, nor any adequate inducement to remain on full pay, to retire from the Department.

This can readily be effected by allowing Surgeons of twenty years' service and upwards the option of retiring on 20s. per diem, and a shilling per diem additional for each year's subsequent service.

This would be a great boon to many Medical officers of weak health, and there are many such at present in the service, who would at once retire on half-pay; it would give promotion to Assistant-Surgeons to such an extent as to keep the average service of this grade to about ten years, and so remove the most serious objection which at present exists against the department.

The subjoined rates of half and full-pay are submitted with confidence that, if adopted, they will effect the objects in view:—

Full Pay.

Ranks.	Present Rates of Pay.					Proposed Rates of Pay.				
	After 30 Years.	After 25 Years.	After 20 Years.	After 15 Years.	After 10 Years.	After 30 Years.	After 25 Years.	After 20 Years.	After 15 Years.	After 10 Years.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Dep.-Inspectors of Hospitals	34 0	30 0	28 0	—	—	40 0	35 0	30 0	—	—
Surgeons-Major	—	25 0	22 0	—	—	—	27 6	25 0	—	—
Surgeons	—	—	—	18 0	15 0	—	—	—	20 0	15 0

Half Pay (on Reduction, or on Account of Ill-health).

Ranks.	Present Rates of Pay.					Proposed Rates of Pay.				
	After 30 Years.	After 25 Years.	After 20 Years.	After 15 Years.	After 10 Years.	After 30 Years.	After 25 Years.	After 20 Years.	After 15 Years.	After 10 Years.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Dep.-Inspectors of Hospitals	25 6	22 6	21 0	—	—	30 0	27 6	22 6	—	—
Surgeons-Major	—	18 6	16 6	—	—	—	25 0	20*	—	—
Surgeons	—	—	—	13 6	11 0	—	—	—	15 0	12 6

* And 1s. per diem for every additional year's service.

If you will favour me with space for this letter, I propose, in subsequent communications, to bring forward, fairly and temperately, the minor grievances under which Army Medical officers labour, as I feel assured that His Royal Highness the Commander-in-Chief, and the Director-General of our department, would, if they were brought before them in a proper spirit, take immediate steps for their removal or mitigation.

I am, &c. An Army Surgeon.

"INSTRUMENT FOR DILATING THE CERVIX UTERI."

Letter from Mr. Robert Ellis.

[To the Editor of the Medical Times and Gazette.]

Sir,—My attention has been drawn to the communication of Dr. Priestley in your number for last week. It was with no little surprise that I recognised in the engraving my own instrument, made for me two years ago by Mr. Coxeter. I enclose you a tracing of my dilator, by which you will perceive that the instrument is identical in every respect, in form and in mechanical construction, with that described and delineated by Dr. Priestley. It is inexplicable to me how Mr. Coxeter could have suffered Dr. Priestley to fall into such a mistake, as he must have been well aware that I originated the instrument, together with many other modifications of obstetric instruments which Mr. Coxeter has very skilfully constructed for me.

At the close of his communication Dr. Priestley makes an indistinct acknowledgment of some priority of design, but alleges that the instrument then made was devoid of his modifications. This is altogether incorrect; the only respect in which Dr. Priestley's instrument differs from my original model consists in the trifling circumstance that mine is open to its point, and his is not—a matter of very insignificant importance.

I was led to the invention of this dilator from a consideration of the facility with which I found I could pass the uterine sound even in cases of great contraction of the cervical canal. It then occurred to me that if I could design a sound which could be made to dilate, I might contrive an instrument far better adapted to effect this purpose for the canal of the cervix than any yet introduced.

After some little trouble, and with the assistance of Mr. Coxeter's mechanical skill, I contrived the excellent dilator in question, and I have had it in constant employ since that time. I have made large use of my instrument, and had purposed publishing some account of it, with cases in which it was successful, but a great pressure of other duties has hitherto delayed me. It may confirm Dr. Priestley in his opinion of the value of what he concluded to be a new instrument, to be assured that it has already done good service in practice before the idea of its design occurred to him. I am, &c.

Sloane-street, March 8. Robert Ellis.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 8.

Mr. Partridge, President.

Mr. E. R. Bickersteth read a paper on

A NEW OPERATION FOR OBTAINING UNION OF AN UNUNITED FRACTURE, WITH REMARKS ON ITS APPLICATION IN CERTAIN CASES OF RECENT FRACTURE.

In bringing this subject before the attention of the Society, the author proposed to mention some cases that had occurred in his practice to show the successive steps by which he arrived at the process in question. He had frequently tried, in vain, friction, acupuncture, and subcutaneous division; and though resection of the ends of the bone had been successful in some instances, it was a proceeding involving a considerable risk to life. Dieffenbach's method had proved to be more successful; but this operation, though conducive to the formation of new bone, in no way provided for what was of paramount importance, viz., absolute immobility of the opposing fragments. The large external wound and injury done to the soft parts in introducing the ivory pegs were also objections to this operation. Recognising the happy influence of Dieffenbach's plan of exciting ossific deposit, and at the same time feeling the importance of keeping the ends of the bone in a condition of absolute immobility, the author was induced to try a modification of the operation; and in the case of a man admitted under his care, at the Liverpool Royal Infirmary, with an ununited fracture of the radius, he drilled a hole through the ends of both fragments, and passing a stout wire through it, secured the bone in perfect apposition. Union took place in seven or eight weeks, but on endeavouring to remove the wire so much traction was necessary that it caused the fracture again to be ununited. The difficulty of removing the wire induced the author to think of some other plan not open to this objection; and in the case of a man with an ununited fracture of the thigh, by means of a common Archimedean drill, he bored two holes in such directions that each passed obliquely through both ends of the fractured bone, and into each introduced a steel rod with a screw at the end. To do this it was necessary to make an incision three inches in length. Much constitutional disturbance followed, the wound suppurating freely. In ten weeks the splints were removed, but no union had taken place. The limb was then confined in gum and chalk

bandages. Symptoms of pleuro-pneumonia came on, and he gradually sank. A post-mortem examination showed tubercular deposit in the ends of the bone and other parts of the body. There was no attempt at repair at the seat of fracture, except where the drills had pierced the bone, and here there was a deposit of new bone. This proceeding showed that it was quite feasible to fix the bone in the manner described without exciting too much inflammatory action; and also that the steel rods caused the formation of new bone. The next case was a fracture of the lower maxilla, where the bones had united in such a position as to render the patient a most unsightly object. As the incision that would be necessary in this instance for the purpose both of putting the bone into proper position and removing the deformity of the soft parts, would not allow the use of external splints or supports, and as it was found impracticable to effect this object by fixing the teeth by an appliance within the mouth, it was absolutely necessary that some means should be devised by which the divided portions of the jaw could be securely fixed; and it occurred to the author that pegs or nails would answer the purpose, especially as he had already observed their presence caused so little inconvenience. Accordingly, at the operation, the plan just mentioned was carried out, and the apposition of the fractured portions was secured by means of two round-headed nails. They most effectually answered their purpose, and no external splint or bandage was required. The case did well, no undue action being set up. On the twenty-second day after the operation, one of the nails came away. The patient left the infirmary perfectly well, the jaw being firmly united in its proper position, and the deformity of the soft parts removed. One of the nails still remained in; and the last account states that its presence caused no inconvenience. The third case recorded was one that presented many points in common with the one just narrated. No external incision was made, and ordinary drill-heads were substituted for nails. The result was everything that the author could have wished. These cases show how readily and with what good effect fractured bones may be fastened together. Surgeons have ever recognised the use of sutures with regard to the soft parts. Why should we not, in cases of difficulty arising from an inability to keep the surfaces in proper apposition, adopt the same plan with the bones? Might not this process be applicable in some cases where division of the tendo-Achillis is required, or where such an operation as sawing off the ends of the bone is indicated? From a consideration of the cases narrated, Mr. Bickersteth proposed to treat an ununited fracture by passing one or more drills through the broken ends of the bone in such a manner as to secure their perfect immobility, and without making any external wound beyond that caused by the entrance of the drill. The limb should then be secured by properly-adjusted splints, and kept at perfect rest. After two or three weeks the drills may be removed, and water-dressing applied to the punctures. For several weeks after, it would, of course, be desirable to continue the use of the splints. In conclusion, the author begged to place upon record three cases of ununited fracture recently treated by his friend, Mr. Fletcher, on the plan that he (Mr. Bickersteth) had suggested, and in each the result had been most satisfactory.

Mr. Fergusson said that he scarcely remembered to have heard a paper of greater Surgical interest than the one just read. It had the merit of bringing out much that was going on in the modern practice of Surgery, and he thought the paper would lead to greater improvements in practice. Here was further proof, he continued, of the advantage of wire and metal in instances in which in former times we were loth to use such materials. He had had the impression that ivory pegs, being softer, would be less likely to do harm, but now the author had shown that metal might be safely used. And it had been shown, too, that the commoner metals were as useful as the rarer; that iron wire was as useful as silver wire. In the same way, cauterisation by an iron instrument was just as useful as by a gold or silver one. Dieffenbach had used the pegs of ivory to create irritation only, but the author had gone further, and fastened the bones together by pegs of iron. The author had shown that much might be done in desperate cases of ununited fracture. From hearing the cases related by the author, he should consider that the plan was safe, and that it ought to command attention. Mr. Fergusson said that he once saw Mr. Abernethy attempt to pass a seton between the ends of an ununited fracture. Failing to do so, he left a probe sticking in the wound between the ends of the bones. The result was good.

Mr. Holthouse thought the interest of the author's plan was not only in fastening the bones together, but in doing it subcutaneously. This was a great merit, and no doubt would lead to the adoption of the plan and to beneficial results in practice. Mr. Holthouse then gave the particulars of a case of ununited fracture of the humerus under his care at the Westminster Hospital, in which he had adopted the novel proceeding of inserting the sharpened end of the lower fragment into the cancellous structure of the upper, thus imitating an impacted fracture. This plan did not succeed. The case was, however, a complicated one, there being anchylosis of the elbow.

Mr. Holmes Coote rose to correct what he believed was a very general and erroneous impression as to the views of Dieffenbach. This Surgeon used to cut down to the ends of the bones and pass in ivory pegs with the hope of creating irritation; but, if he could do it easily, he used also to fasten the ends of the bones together. Mr. Coote thought that three classes of cases ought to be distinguished—first, those in which there was union in good time; second, those in which union was simply retarded; and third, those in which union could not be obtained, as the ends of the bones were in a state of fatty degeneration. In the third no good results could be hoped for.

Mr. Curling regarded the author's plan as ingenious as a happy application of the modern treatment with metallic substances, and as calculated to be of great service not only in ununited fractures, but also in compound and in complicated simple fractures, when it was difficult to keep the parts in position. He was struck with the remark in the paper that the author had met with numerous cases of ununited fracture. Though Mr. Curling had been long attached to a large Hospital, where a great many fractures were admitted, he had seen only a few cases of ununited fracture, and all of them had been brought to the Hospital in that condition, most of them being the result of accidents which had occurred at sea. The author being Surgeon to the principal Hospital in the chief seaport city in this country probably met with an unusual number of such cases. Mr. Curling had seen, however, many cases of delayed union, and mentioned two remarkable instances of the kind, one a double fracture of the thigh which happened at sea seven months before, and might have been considered an ununited fracture, but which got firm in a plaster of Paris case. He called attention to a constitutional indisposition to ossific union, independent of the general health, which was manifested in young people as well as in adults, and gave an instance in point of long-delayed union in a fracture of the tibia in a young girl.

Mr. Barwell, while agreeing with what had fallen from Mr. Holmes Coote concerning the degenerated condition of bones, considered that such condition was the result, more frequently than the cause, of non-union. It was a law of animal nature that any organ losing its function should degenerate. Thus, when a bone lost its power of support, the surrounding muscular pressure and other conditions of its healthy life, it would surely degenerate; but until that degeneration had reached a high point it might still be restored. A remarkable case had occurred to him lately, which would also show that in certain instances the admirable plan proposed by Mr. Bickersteth would be unavailing— as in cases where the non-union was produced by a large quantity of soft parts intruding between the fractured ends. The case alluded to was as follows:—About eighteen months ago a man broke his arm about two inches and a-half above the elbow. He was admitted into the Charing-cross Hospital. The fracture united well, and the man was discharged cured. The same night, however, he got very drunk, and broke his arm again, but took no notice of the circumstance, continuing drunk for about a fortnight. Two months ago he again entered the Hospital with a broken arm. As Mr. Barwell had been for some time taking the duty of his colleague, Mr. Canton, this case came, about a fortnight ago, under his observation, and he determined to operate. The upper and longer fragment was on the outer side, its lower end overlapping the head of the radius. The inner end of the lower fragment was half-way up the inner side of the arm. The movement to and fro of this portion was very considerable; but there was always a wide interval between the two bones, which was occupied constantly by the anterior brachial muscle, sometimes also by part of the biceps, and in certain positions it seemed as though the artery and nerve also got between the fragments. The man having been placed under the influence of chloroform, Mr. Barwell made an incision two inches long over the outer fragment, and turning out its end, sawed out a

wedge-shaped piece, so as to leave an angular gap or notch in the end of the bone. The inner fragment lay so far away from the wound, and in such close proximity to the artery and nerve, that the greatest care was required in getting its end to protrude at the wound. This, however, was accomplished without any untoward accident, and the end was cut into a wedge shape, so as to fit with some degree of accuracy the interval in the upper fragment; traction was made upon the arm, and the two portions fitted together, and with the aid of a splint they retained perfect apposition. A singular condition of bone revealed itself during the operation—namely, that the periosteum on the upper fragment was loose, and could be slipped up off the bone as a man might turn up his shirt-sleeves. This tissue was carefully replaced, yet, on account of this condition of bone, he (Mr. Barwell) could not but look to the issue of the case with some anxiety. The man had had as yet (ten days afterwards) no bad symptom.

Mr. C. H. Moore thought the plan suggested would be valuable in some cases, but that there would be some risk to life by tetanus and pyæmia.

Mr. Hilton said that, as a Surgeon to a large Hospital, he must add to the commendations of the other speaker, his opinion that the paper was one of great interest, and that the plan was likely to be very useful, when ordinary treatment had failed. He (Mr. Hilton) understood Mr. Holmes Coote to say that when there was fatty degeneration of the bone the ends never would or could unite; yet the author had related a case of cure by his plan, although at the operation the bone was so soft that a knife was passed through it.

The Author having returned thanks, the Society adjourned.

OBSTETRICAL SOCIETY OF LONDON.

Thursday, February 4.

Dr. Greenhalgh, V.P., in the Chair.

A paper by Mr. Baker Brown was read on

FIBROUS TUMOURS OF THE UTERUS TREATED BY SURGICAL MEANS.

The author commenced by reminding the Society that on December 7, 1859, he had read a short paper on this subject, containing a case of fibrous tumour of the uterus treated successfully by surgical means. Also on March 6, 1861, he had read a second paper on the same subject, giving six cases, four of which were cured, one was relieved, and one died. The object of the present paper was to confirm the practice previously advocated, by fourteen more cases, and at the same time to show that in most cases a very modified surgical treatment was sufficient; for whereas Mr. Brown had hitherto divided his operation into two parts—viz., first, preliminary incision of the os and cervix; and, secondly, gouging or breaking up the tumour,—he now finds that the first step will always arrest the hæmorrhage and the development of the tumour. In some cases the tumour decreases, and when small it will entirely disappear, more especially if of recent origin; and even when gouging is required a much slighter operation is sufficient. Mr. Brown, therefore, now never uses "Harper's instrument," but only a pair of long-handled, blunt-pointed, curved scissors. The author entered minutely into the mode of operating, and laid great stress on carefully and thoroughly plugging the incisions and whole vagina with oiled lint after the operation, as on this point depended the chances of hæmorrhage, and exposure to air, and consequent hysteritis, and even peritonitis. Mr. Brown then read fourteen cases, occurring in the London Surgical Home, illustrative of his remarks. Of these fourteen, ten were cured of the hæmorrhage by the incision of the os and cervix uteri alone, and one was relieved; in two only was it necessary to perform the second operation, both resulting in cure of the tumour; in six cases the tumour had either entirely disappeared or materially decreased after incision alone. Of the three deaths, one had occurred from peritonitis, resulting from exposure to cold and the restlessness of the patient; one from organic disease, independent of the operation; and one from pyæmia. Out of between twenty and thirty cases occurring in his private practice, the author stated that he had had one death, in a patient whose case was complicated with hæmatocele, and that in his public practice he had had as many more as were now given, with no more deaths. The following practical conclusions were drawn:—1. That the fact of the curability of these tumours is materially confirmed by these cases. 2. That it is not necessary in many cases to do more than incise the os and cervix, thereby lessening the danger of the operation. 3. That the hæmorrhage is almost invariably arrested by the incision of the os and cervix. 4. That the cure of these fibrous or fibroid tumours by Surgical means, without the danger of enucleation, is now firmly established, as proved by Dr. M'Clintock, Dr. Routh, Dr. Dawson, of Newcastle-upon-Tyne, as well as by himself (Mr. Brown).

Dr. Gervis wished to know from Mr. Brown whether the incisions he made in the sides of the cervix uteri were ever apt to reunite; whether, if they did, the hæmorrhage recurred; and whether, if they did not, the incised condition of the cervix, in a patient who subsequently became pregnant, in any way interfered with normal parturition.

Dr. Routh considered the paper as evidence of the advance of Medical science with respect to a disease many cases of which had been deemed incurable. He alluded to the process of enucleation recommended by Dr. Atlee, which he (Dr. Routh) regarded as too hazardous. It was known that many cases had ended fatally under the treatment, and he regretted they had not been published. Mr. Brown, however, had acted more nobly in publishing both his successful and unsuccessful cases. Dr. Routh considered that fibroid tumours required different treatment according to whether they were in or out of the cavity of the pelvis, whether the heart and lungs were pressed upon, or micturition impeded, or whether in either case excessive floodings occurred. In any case the tumour should not be meddled with unless vital functions were interfered with. Mr. Brown's operation could not be used in supra-pelvic cases, because of the uncertainty of position, and risk of wounding the peritoneum. In such cases he considered gastrotomy the best treatment, removing both ovaries also. In the pelvic fibroids, he agreed with the author that the tumours after bisection diminished, and he considered this an established point in practice. The opening of the cervix he believed not only checked the hæmorrhage, but enabled the tumour to be more easily got at; it was, under the restrictions laid down by Mr. Brown, quite safe.

Dr. Greenhalgh considered the question of fibroid or fibrous tumours one of great importance, especially where the hæmorrhage endangered the life of the patient. In the great majority of cases he had found the best results from the use of bichloride of mercury or bromide of potassium. Still there was a certain limited class of cases in which medicines were of little avail, and it was in such that the division of the cervix uteri was attended with benefit. He had seen a few cases, and in these, although the hæmorrhage was considerably lessened, yet the size of the uterus was not much reduced. In those cases where pressure on surrounding structures had produced injurious effects, he had seen good results from pushing up the tumour above the brim.

Mr. Brown, in reply to Dr. Gervis, stated that care was taken to prevent the incisions in the os and cervix from uniting. The oiled lint, in the first instance, and the injections afterwards, generally prevented union; but if any bands of lymph were thrown out, he always broke them down with the finger. He had never seen a case in which the patient had been confined after the operation, but it was only reasonable to infer that parturition would be accelerated after these incisions; for in the case of a primiparous woman, where the os is torn, the subsequent labours are always exceedingly quick. As to the *rationale* of the operation, Mr. Brown had avoided the question, for fear of giving too wide a field for discussion. He thought the action was twofold. The tumours were of very low vitality, and the slightest interference with them stopped their growth. Thus, in the first place, the initiatory bloodvessels were cut through by incising the os and cervix; and, secondly, the tumour was grasped more firmly by the contraction of the uterus, which always takes place after the os is incised; and thus the tumour was confined, could not grow, and often died. He was obliged to Dr. Routh for alluding to the authenticity of his (Mr. Brown's) cases, as some doubt had on more than one occasion been thrown on the subject. He could only repeat that his practice at the London Surgical Home was open to every member of the Profession. He had only given cases where severe hæmorrhage was present as the most urgent symptom, and in almost all the cases which came to him the patients had been previously treated without success.

Mr. T. Bryant related some

CASES OF OVARIOTOMY, WITH REMARKS.

After a few preliminary remarks, the author gave the details

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of ten cases of ovariotomy, six of which were successful. The following are their brief notes:—

Case 1.—*Multilocular Ovarian Tumour—Ovariotomy—Death on Fourth Day.*—M. C., aged 30, married. Tumour discovered two years; never been tapped. Ovariotomy on December 5, 1860; small incision; pedicle, which was broad, fastened by double ligature; wound brought together with pins. Opium freely given. Third day, vomiting with tympanitis; and death seventy-eight hours after the operation. Post-mortem: Peritonitis.

Case 2.—*Unilocular Ovarian Tumour—Ovariotomy—Recovery.*—E. D., aged 32, married. Disease existed two years and a-half; had been tapped once. Ovariotomy on October 15, 1862; small incision; adhesions in front; pedicle secured with clamp; wound brought together with silver sutures. Uninterrupted recovery in one month. This patient has since been confined of a living female child.

Case 3.—*Unilocular Ovarian Tumour—Ovariotomy—Recovery.*—A. S., aged 25, single. Disease four years; tapped twice. Ovariotomy on March 20, 1863; no adhesions; small incision; pedicle secured with clamp. Acute bronchitis. Perfect convalescence from the operation in one month. The patient subsequently died from pneumonia two months after the operation.

Case 4.—*Double Ovarian Disease—Ovariotomy—Death.*—E. C., aged 32, married. Disease two years; tapped once. Ovariotomy on April 15, 1863; extensive adhesions; broad pedicle secured with three whipcord ligatures on left side, on right side with two. Collapse and death in twenty-two hours. Post-mortem: Peritonitis.

Case 5.—*Semi-Solid Ovarian Tumour—Ovariotomy—Death.*—J. P., aged 44, married. Disease many years; tapped once. Ovariotomy on July 25, 1863; small incision; broad pedicle secured with three whipcord ligatures. Death in thirty-seven hours from peritonitis.

Case 6.—*Multilocular Ovarian Tumour—Ovariotomy—Recovery.*—L. W., aged 17, single. Disease existed one year; never been tapped. Ovariotomy on September 8, 1863; small incision; no adhesions; broad pedicle secured by three whipcord ligatures; silver sutures to wound. Rapid convalescence.

Case 7.—*Multilocular Ovarian Tumour—Ovariotomy—Death.*—H. D., aged 24, married. Disease three years; tapped three times. Ovariotomy on October 8, 1863; small incision; extensive adhesions; broad pedicle requiring seven whipcord ligatures. Collapse and death in twenty-three hours. Post-mortem: Slight hæmorrhage into abdominal cavity.

Case 8.—*Multilocular Ovarian Tumour—Ovariotomy—Recovery.*—H. B., aged 34, married. Disease one year; tapped once. Ovariotomy on October 8, 1863; large incision; no adhesions; pedicle secured with three ligatures; silver sutures to wound. Uninterrupted convalescence.

Case 9.—*Multilocular Ovarian—Tumour—Ovariotomy—Recovery.*—A. J., aged 37, single. Disease one year; never been tapped. Ovariotomy on October 16, 1863; large incision; no adhesions; clamp to pedicle; silver sutures. Rapid recovery.

Case 10.—*Multilocular Ovarian Disease—Ovariotomy—Recovery.*—S. C., aged 50, married. Disease eighteen months; tapped twice. Ovariotomy on December 2, 1863; large incision; no adhesions; clamp to pedicle; silver sutures to wound. Rapid convalescence.

The author then passed on to make some general remarks on the operation. He confessed that in three of the cases which had been noticed the chances of securing a successful result from the operation were looked upon as being very slight, and that he should now in similar cases refuse to operate. He dwelt upon the propriety of being very careful in selecting cases, and expressed his belief that the Surgeon had better err on the side of caution than on that of rashness. He considered that the best patient for the operation was the one who was in the best health, and that there was no special general preliminary treatment demanded which was not applicable to other operations. He enforced the necessity of isolating the patient, and of guarding her well from the contact of all who were not specially required for the treatment of her case. It was to the careful observance of this rule that he attributed his success. During the operation he preferred to place his patient in the half-sitting posture, as such was the most convenient for many reasons. He was indifferent to the length of the incision which he made, but had commenced always with the small incision, and increased it when any difficulty in the extraction of the tumour was experienced. He condemned the practice of exploring the abdominal cavity with the hand, in the search for adhesions, and advocated the practice of breaking them down as they manifested their presence during the operation, stating that by following this rule there would be but little necessity in the majority of cases of fingering the peritoneum. As to the treatment of the pedicle, he used the clamp or ligature, according to circumstance. When it was long and narrow, he had employed the clamp, as convalescence appeared more rapid after its application than when the ligature was used; when it was broad and short, he had used the ligature, as he regarded traction upon the pelvic viscera as most injurious. He spoke in favourable terms of the practice which Dr. Tyler Smith had introduced of dropping the pedicle with its shortened ligature into the pelvis; and expressed his belief that such a practice might be more general. The practice of sponging out the pelvis he regarded as dangerous, and recommended its adoption only when an excess of blood or of semi-solid ovarian material had taken place. In the treatment of the wound he had always employed silver sutures, as such were more convenient in their application. He had also included the peritoneum and abdominal muscles in his sutures. In his after-treatment he had been guided by the ordinary Surgical principles. He had kept his patient's room warm but airy. He had given but little opium, and strongly advocated its employment as a suppository. For the first two or three days he had given only liquid nourishment, such as good beef-tea and arrowroot; but after that he had given meat and wine with average caution. He had no special treatment to recommend.

Mr. Spencer Wells said that the proposition with which the author commenced his very valuable paper—to the effect that ovariotomy could be performed in large Hospitals with as good results as in the small institutions which more closely resembled private houses—was refuted by the details of his own cases. In every one of these ten cases the patients had been placed in a separate room; a special nurse had been provided for them; there was no carrying to and from the operating room, nor indiscriminate admission of visitors and students;—but all those precautions had been taken which placed the women nearly in the same circumstances as if they had been in a small Hospital or a private house. Ovariotomy had been almost uniformly fatal in the large Hospitals until it had been shown, by the results of his (Mr. Wells') own cases, and those obtained by others in small institutions or in private practice, that success could only be obtained by that repose, isolation, careful nursing, and those sanitary conditions which had not been obtained in the large Hospitals. Nobody ever had asserted that the operation could not succeed in large Hospitals; but he did claim some credit for himself and for others who had shown why ovariotomy succeeded so much better in small than in large Hospitals, because he felt sure that the generous rivalry which had sprung up would not only lead to the general adoption in large Hospitals of those precautions which protected patients about to undergo ovariotomy from injurious influences, but that the same precautions would be taken before all other serious operations, and would remove many preventable causes of mortality. No one could seriously maintain that, if all the patients who had undergone amputation in Guy's Hospital had been as well cared for as the ten women upon whom Mr. Bryant had performed ovariotomy, the mortality would have been nearly as large as he himself had shown it to be in the valuable reports which he had brought before the Medico-Chirurgical Society. He (Mr. Wells) felt assured that, sooner or later, the lessons which had been taught by the ovariotomists would lead to the general adoption in the large Hospitals of such precautions as would greatly diminish the mortality after lithotomy, amputations, herniotomy, and all other important operations. Mr. Bryant's cases also resembled those of the Surgeons of small Hospitals, in the fact that he was the only operator. Did any one believe that if the ten cases had been divided among five of the Surgeons of Guy's, as ten amputations or ten lithotomy cases would have been, the result would have been as good? Ovariotomy was an operation which, above all others, demanded an experienced operator. Mr. Bryant's later cases were more successful than his earlier cases; and he had also learned by experience when to operate and when to reject cases as unfit for operation. If large Hospitals wished to have as good results as small ones, they must also adopt a system which secures a large experience to one operator. Mr. Bryant's remarks upon the rejection of all unfavourable cases must be received with some limitation. Every Surgeon would be anxious, for the sake of Surgery in general, for the credit of a particular operation, and for his own reputation, only to

operate in favourable cases; but common humanity often obliged him to make the attempt to save life, when a patient must soon die if left alone, even although the prospect of success was very small. When a poor woman whose best prospect is a few weeks or months of a life of hopeless suffering calls upon a Surgeon for aid, it might be his duty, in a case not absolutely desperate, even although her prospect of recovery was but as one in ten, to risk his reputation in the hope of saving her life. Many matters of detail, suggested by the author's cases, called for remark; but he (Mr. Wells) would only allude to one—namely, the practice of sponging blood or ovarian fluid from the peritoneal cavity. In many cases no sponging was necessary, because a cyst was removed without any of its contents, or any blood, getting into the abdomen or pelvis. But when there was either blood or fluid in the cavity — and especially when the curious products resulting from a mixture of blood with serum or mucoid fluid were present—his experience had taught him that they should be carefully removed at the operation, or afterwards if there was good reason to believe that they were doing harm. He had done this with excellent results in three cases, making a puncture by the vagina. Dr. Peaslee had even gone so far as to practise daily washing out of the peritoneum. He (Mr. Wells) would not express any opinion as to this extreme measure; but he thought the comparison of the author between these cases and those in which blood was effused into an unopened joint, or into any closed serous sac, was not a fair one; inasmuch as the opening of the cavity, the admission of air, and the mixture of ovarian or ascitic fluid with blood, almost destroyed all analogy between cases so essentially different. The rule should be so to operate as to keep the peritoneal cavity, if possible, free from any blood or fluid whatever; but, when this could not be effected, any extraneous fluid should be removed with scrupulous care.

Mr. Baker Brown agreed with the last speaker that the arrangements had been precisely the same as those practised in a small special Hospital, but he would strongly urge Mr. Bryant not to exclude the pupils. In the London Surgical Home, visitors, sometimes to the number of fifty or sixty, witnessed his operations, and he had seen no ill effect follow, his statistics of ovariotomy in that institution being thirty-six operations and thirteen deaths. But after the operation the patient must be separated from the others, to give her a fair chance of recovery. With reference to sponging out the peritoneum, Mr. Brown laid down this rule: if there were blood or fluid of a colloid nature in the cavity, it must be removed either by sponges or flannels, or sometimes by placing the patient on one side; if, however, the fluid was ascitic or simple mucoid fluid, as often found in ovarian cysts, and not in large quantities, he left it alone. Of course, one would not interfere with the peritoneum if there were no occasion.

Mr. Bryant, in his reply, thanked the Society for the way in which they had received his communication. He was quite ready to give all credit to the Surgeons of the smaller Hospitals for having, by their energy and success in ovariotomy, stimulated others to practise the operation. He was ready to admit that great precautions were needed in the larger institutions to isolate the patients, and thus rescue them from all risks of contagious influences. The success which his cases had demonstrated was undoubtedly to be attributed to this caution; but it also proved that such was to be obtained in a large Hospital by attention to these points. He acknowledged that a Surgeon was placed in a difficult position when asked to operate in a case in which the prospect of success was very small; but he believed that almost desperate cases should be avoided. He would advise the sponging out of the pelvis when much blood or colloid fluid had escaped into it; in other cases it was not required. He agreed with Mr. Brown that it was a desirable thing that the pupils should witness the operation; but as this advantage was only to be obtained by incurring some unnecessary risk to the patient, he had thought it better that, to a certain extent, they should be excluded. The few who had been admitted were senior men who had been placed under a kind of quarantine for some days previously.

New Chair on the History of Medicine.—M. Duroy, the new Minister of Public Instruction, has just appointed M. Daremberg, the celebrated Medical classical *savant*, to give a course of lectures on the History of Medicine, at the College of France. M. Rayer, when Dean of the Faculty of Medicine, tried in vain to get the sanction of the authorities to the establishment of a similar chair there.

MEDICAL NEWS.

Royal College of Surgeons.—The following Members of the College, having been elected Fellows at previous meetings, were admitted as such at a meeting of the Council on the 11th inst., viz.:—

William Bell, Rochester, Diploma of Membership dated April 26, 1826; Frederick Disting Tothill, Charles-street, St. James's-square, June 7, 1833; Charles Vines, Reading, July 25, 1836; and Charles Manners Smith, of H.M. Indian Army, April 28, 1843.

The following Members of the College, having undergone the necessary Examinations, were admitted Licentiates in Midwifery, at a meeting of the Board, on the 16th inst.:—

George Frederic Thomas, L.R.C.P., Canterbury, New Zealand, diploma of membership dated February 11, 1859; Alfred Monckton, L.S.A., Brenchley, Kent, July 31, 1860; William Godfrey Watermeyer, Cape of Good Hope, November 20, 1863; Richard Thomas Freeman, Hatcham, January 27, 1864; Chas. Edward Covey, Basingstoke, May 6, 1863; James Smith Harris, St. John's-wood, July 31, 1863; William Samuel Wilson, Bayswater, April 22, 1862; Joseph Langhorn, Saville-row, January 28, 1864; and Jean Baptiste Blanshet, M.D., Quebec, January 26, 1864.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, March 10, 1864:—

William Henry Brotherton, Bethnal Green-road; George Charles Walker, Bootle, Liverpool; Walter Harris, Waterford; William Chapman Grigg, Bristol.

The following gentlemen, also on the same day, passed their First Examination:—

Edward Brewster, Sheffield School of Medicine; Walter Haxworth, Leeds School of Medicine.

Pharmaceutical Society of Great Britain.—Names of Candidates who passed the Major Examination, March 16th, as Pharmaceutical Chemists:—

Antonio A. Ferreira, Rio de Janeiro; George R. Warren, Ware; Albert Cooper, Yeovil; Abraham J. Dyer, Gosport; William S. Greaves, Ironville; John Hamp, Wolverhampton; Martin Magor, Truro; John Reece, Rotherham; David P. Saer, Pembroke Dock; James Swenden, Darlington.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Brigstocke, H., Ext. L.R.C.P. Lond., has been elected Physician to the South Staffordshire General Hospital, Wolverhampton.

Buckle, Fleetwood, M.D., L.R.C.P. Lond., has been appointed House-Surgeon and Secretary to the West Norfolk and Lynn Hospital.

Fiddes, David, M.D. Aberd., has been appointed one of the Medical Officers of the Hospital for Incurables, Aberdeen.

Freshfield, Allen, M.R.C.S. Eng., has been appointed Admiralty Surgeon and Agent at Harwich.

Hammond, E. C., L.S.A., has been elected House-Surgeon to the York County Hospital.

Hicks, J. A., M.R.C.S. Eng., has been appointed Dispenser to St. Bartholomew's Hospital, Chatham.

Hillier, Thomas, M.D. Lond., has been appointed Physician to the Skin Department of University College Hospital.

Jackson, Thomas V., M.R.C.S. Eng., has been elected Surgeon to the South Staffordshire General Hospital, Wolverhampton.

Keal, William, M.R.C.S. Eng., has been appointed one of the Surgeons to the Rutland Dispensary, Oakham.

Keith, Archibald, M.D. Aberd., has been appointed Physician to the Royal Infirmary of Aberdeen.

Mackesy, Thomas L., M.D. St. And., has been elected a Member of the Council of the Royal College of Surgeons, Ireland.

Menzies, Duncan, M.R.C.P. Lond., has been elected Physician to the Western General Dispensary, Marylebone-road.

Miles, Rees, L.R.C.P. Edin., has been appointed Surgeon to the Penydarren Iron Works, Merthyr Tydvil.

Perry, Robert, M.D. Glasg., has been appointed Dispensary Physician to the Royal Infirmary, Glasgow.

Roberts, John, M.D. Edin., has been appointed Surgeon to the General Hospital and Dispensary for Children, Manchester.

Sarvis, Thomas, M.D. Aberd., has been elected Medical Officer of Health for Bethnal-green, N.E.

Seaton, D., M.R.C.S. Eng., has been appointed one of the Surgeons to the Rutland Dispensary, Oakham.

Spanton, W. Dunnett, M.R.C.S. Eng., has been appointed House-Surgeon to the North Staffordshire Infirmary.

DEATHS.

Baker, Thomas H., M.D. St. And., at John's-place, Parsonstown, Ireland, on January 13.

Bevan, T., Surgeon, of Newport, Pembrokeshire, on March 4, aged 63.

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BURNARD, CHARLES F., M.R.C.S. Eng., Assistant-Resident Medical Officer, London Fever Hospital, on March 10, aged 21.

DICKINSON, JOHN, M.D. Aberd., at Edwinstowe, Ollerton, Nottinghamshire, on February 23.

FROGLEY, RALPH ALLEN, F.R.C.S. Eng., of Hounslow, Middlesex, at Brighton, March 15, aged 71.

GLENDINING, WILLIAM, L.R.C.S. Edin., at Lastingham, Pickering, Yorkshire, aged 63.

HAMPSON, ROGER, Surgeon, at Bolton-le-Moors, Lancashire, on January 14, aged 71.

HARDING, ROBERT C., Surgeon, at Uley, Gloucestershire, on February 26, aged 64.

HEATHCOTE, ROBERT H., M.R.C.S. Eng., at Chorlton-upon-Medlock, Manchester, on March 2.

LAMOTTE, ALEXANDER G., M.R.C.S. Eng., at Tiverton, Devonshire, on January 13.

MACPHERSON, ROBERT, Surgeon, of Birmingham, at Southport, Lancashire, on February 26, aged 53.

MILLER, Dr. WILLIAM, at Pitt-street, Edinburgh, on March 1, formerly of Demerara.

PECK, FLOYD MINTER, M.R.C.S. Eng., at Sale, Gipp's Land, Victoria, Australia, on January 7, aged 43, formerly of Newmarket, Cambs.

POWELL, ROBERT HUTCHINSON, M.D. Lond., at Abbey-square, Chester, on March 10, aged 46.

SHEFFIELD, WILLIAM, Surgeon, at Farmanby, Thornton, Yorkshire, on February 16, aged 76.

SUMMARS, JAMES, L.R.C.S. Edin., at Biggar, Lanarkshire, on February 29.

THE Royal Infirmary for Diseases of the Chest, City-road, has just been rebuilt. It is a handsome Elizabethan building, having large and well-ventilated wards for in-patients, and good accommodation for out-patients. The parent institution of its kind, it receives a fair share of public support. At a public meeting in aid of its funds in July last £1500 were subscribed, and at another dinner at the London Tavern some days back, under the presidentship of Sir M. Peto, £1000 were collected.

CLERICAL MUNIFICENCE.—The will of the Right Reverend Thomas Turton, D.D., Lord Bishop of Ely, has just been proved under £40,000, the bulk of which he has directed to be distributed to charitable institutions in equal proportions, and has not forgotten those belonging to the Medical Profession, among which are noticed the Westminster Hospital, the Western Dispensary, King's College Hospital, the Bedford Infirmary, the Huntingdon County Hospital, and the Suffolk General Hospital.

EXTRAORDINARY LONGEVITY.—The obituary of the *Times* has lately contained some marvellous instances of prolonged life, especially on the 10th and 12th inst., when on the former day the deaths of three gentlemen and two ladies were recorded, whose united ages amounted to 436 years, giving an average of 87 years and rather more than two months to each person. Advanced as were these ages, they were surpassed on the 12th inst., when the deaths of four ladies and two gentlemen were published, whose united ages amounted to 536 years, giving an average of 89 years and four months to each; the youngest in the list was a lady of 80, and the eldest of the same sex had reached 106 years; the youngest man being 82, and the eldest 86 years of age.

TESTIMONIAL TO DR. LIVEING, DEMONSTRATOR OF ANATOMY TO THE MIDDLESEX HOSPITAL SCHOOL OF MEDICINE.—On Thursday, the 10th inst., a large meeting of the Students of the Middlesex Hospital was held in the anatomical theatre for the purpose of presenting Dr. Liveing with a very handsome silver cup, in testimony of their appreciation of his zeal and ability in teaching them practical anatomy. On the cup was engraved—"Presented to R. Liveing, Esq., M.A., M.B. Cantab., by the students of the Middlesex Hospital Medical College, as a slight mark of their appreciation of his uniform kindness and attention to them while pursuing their anatomical studies." The representative of the students, on presenting the cup, made a short, but highly complimentary speech, to which Dr. Liveing briefly replied. The proceedings terminated with hearty cheering.

THE PICTURES AT BARBER-SURGEONS' HALL.—Many of our readers may be unaware that there exist some valuable portraits and other pictures at Barber-Surgeons' Hall, Monkwell-street, London-wall. The hall is about to undergo reconstruction, and, during this procedure, the pictures are to be removed to the South Kensington Museum, where they can be viewed under the advantage of an amount of illumination they do not possess in their present locality. Among these pictures is the celebrated Holbein of Henry VIII. granting the charter to the Barber-Surgeons, which is in beautiful preservation, and only feebly represented by the cartoon in the possession of the Royal College of Surgeons. There is also another celebrated picture of Sir Charles Scarborough, successively Physician to Charles II., James II., and William III., reading his lectures on anatomy in the Barber-Surgeons' Hall. Every one, on viewing these works and the various portraits of early Surgical celebrities in the possession of this company, must regret that they did not fall to the lot of the Surgeons on their separation from the Barbers; and the question will naturally arise whether they may not be yet acquired by the College. They are lost and out of place in the keeping of the Worshipful Barbers.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—The usual monthly meeting of this Society was held on Monday, the 7th inst., at the Dental Hospital, Soho-square. The chair was taken by the President, Edward Saunders, Esq. Models of irregularities in the teeth and the plan of treatment adopted were exhibited and explained by Mr. Saunders, Mr. Harrison, and Mr. Parkes. A long and spirited discussion took place on Mr. Spence Bate's paper on the "Pathology of Dental Caries," read at previous meetings. Mr. Bate maintained that all enamel had a tendency to be less perfectly developed in its external surface; that in cases where there was a deterioration in the development of teeth, that external surface would be less perfectly developed than in other teeth; that it was common to find, in teeth predisposed to decay, that the external surface had a more than usually large amount of animal tissue existing in it. Passing to the dentine, he maintained that in every tooth where there was a predisposition to decay, certain marks called areolar spaces were found, and came to the conclusion that those parts were of a less perfectly developed structure, containing a larger amount of animal tissue than the other parts. The green marks deposited on the teeth were nothing more than the decay of the external membrane, and that decay was really an absorption of oxygen by the animal matter in and about the teeth, which formed carbonic acid, that decomposed the phosphate of lime and left the animal constituents of the teeth exposed, which formed a further quantity of carbonic acid, and so on. A great many members took part in the discussion, and at the close a vote of thanks was accorded to Mr. Spence Bate.

MELANCHOLY DEATH OF DR. THOMAS BLACK, ANSTRUTHER.—The *East of Fife Record* gives a number of particulars regarding the melancholy death of this gentleman, whose lifeless body was found about seven o'clock on Monday morning last week floating in the harbour of Anstruther. Our contemporary says:—"The event caused intense sensation in the town on Monday morning as soon as the discovery of the body was made, and indeed still continues, owing to the mystery in which his death and its attendant circumstances is shrouded. About ten o'clock on Sunday evening, the Doctor had occasion to visit a patient in Pittenweem, and for this purpose hired a vehicle from Mr. Donaldson, of the Royal Hotel. He was accompanied to and from Pittenweem by the driver, Thomas Donaldson, and John Lees, arriving in Anstruther about half-past ten, when he went into the hotel, remained there about five minutes, spoke to Mr. Donaldson and John Lees, and then left, proceeding, it is said, along the High-street, in the direction of his own house, but it does not appear that he had reached it. He was not, so far as can yet be learned, seen alive after this hour, a little before eleven o'clock. Many are of opinion that the Doctor must have visited some other house or patient after that hour, and that he could not have met with his death then, from the fact that about one or two o'clock in the morning cries of distress, proceeding from the direction of the west beach or harbour, were heard by no less than nine individuals, principally residing near the shore of West Anstruther. The night was most intensely dark and wet, and the gas lights being all extinguished between ten and eleven, the most probable conjecture that can be formed is, that the Doctor in going home had lost his way in the darkness, had somehow or other gone down either to the east or west beach, and had been unable to extricate himself. Hence the cries, which are ascertained to have continued at least two hours, for help. The tide was then coming in, and the Doctor, from the effects of exertion, cold, and wet, would no doubt have to succumb at last to the watery element, and had thus been drowned. His watch, a valuable gold ring, and case of lancets, were found on his person, while his hat and stethoscope were subsequently found at different places. The watch had stopped at 9·50, which was about an hour before he was last seen; but it was not run out, and the glass of it when found, was broken. Dr.

Black had just completed the forty-fifth year of his age; was married in 1845, and now leaves a widow and four children to mourn his untimely fate. He has practised in Anstruther for a period of twenty-five years; and we think there can be but one opinion as to the loss which Anstruther and neighbourhood has sustained in the death of one who had not only attained to great eminence and skill as a Surgeon, but who was endowed with a more than ordinary degree of personal gifts and graces, which he was ever ready to place at the disposal of his neighbours."—[Stinginess in the use of gas cost poor Dr. Black his life.—ED.]

GEMS OF MILITARY SURGERY.—[*Mem.* These could be matched by some of the old Peninsular anecdotes. Great countries cannot afford good Surgery.—ED.] A sick officer from the 21st Regiment arrives at a hotel in Washington, and promptly sends for the Surgeon in charge of the district, who visits the patient, gives him a severe reprimand for leaving his regiment, attributes it to cowardice, thus adding insult to injury, and leaves to repeat his visit in two or three days, each time asserting that his illness was of slight importance. After a few days his friends became alarmed, and one more anxious and officious than the rest, warned his mother, who was then with him, that unless better attended, her son would die; and so he did. A captain engaged in that murderous assault upon the Heights of Fredericksburg, had the misfortune to be struck in the thigh by a "minié." He fell instantly, and rose as quickly to his feet, was assisted to the Hospital, and the ball taken out by incision posteriorly. An amputation was decided upon. To this he demurred, saying that as he could stand and walk he knew the bone was not broken, and amputation unnecessary. Several Surgeons examined and declared the bone shattered, for could they not feel with their fingers the sharp points? It was finally conceded to wait until a certain Surgeon, named by the captain, could examine it, and if he coincided with them, he would yield and submit to an immediate amputation. He came, and in his examination had the satisfaction, after some exertion, to remove one of the splinters, and taking it to the light exclaimed, "By G—d, gentlemen, that man's thigh-bone is made of gutta-percha." Then examining his pants, it was found that the ball had struck the contents of his pocket, and carried the fragments of his gutta-percha comb into the wound, and it was these fragments that were mistaken for spiculæ of bone. I have seen the ball that did this mischief. The captain's theory was better than that of the Surgeon. He said, "If the bone is broken, how could I walk?" They answered, "If the bone is not broken, whence these fragments?" The limb was saved by accident, and is now as good as ever. The captain has his own self-will, and not the half dozen Surgeons in attendance to thank that he has now two legs to walk with. It was perhaps a natural mistake, but if the Surgeons possessed as much good common sense as the captain, it never should have occurred. An Assistant-Surgeon had his arm amputated in a Hospital in Washington, and died in the night from hæmorrhage. Was this not from ignorance or carelessness? Another soldier had his arm amputated just above the elbow. The Surgeon dressed it, applying fifteen yards of bandage covered with oiled silk, and tied below and at the shoulder so tight as to ligate it. He also died.

LIVERPOOL NURSES' TRAINING SCHOOL AND HOME.—The annual meeting took place at the Home, in Dover-street, adjoining the Royal Infirmary. Mr. Robert Hutchison gave a very gratifying account of the progress of the institution. Mr. W. Rathbone, jun. (hon. secretary), read the report, from which the following is an extract:—We obtained the assistance, as training nurses, of several of the nurses educated in the school established in St. Thomas's Hospital by the trustees of the Nightingale Fund; of these we have to regret the loss of one by fever—four remain in the infirmary. We cannot speak too highly of the efficiency of the system, whether as to discipline or Medical instruction, under which these nurses have been trained, or too gratefully of the advantages we have derived from it. Besides the four Nightingale nurses, there are two who have long been in the infirmary, and two of last year's probationers, who, having completed their probation, are in charge of wards. Nineteen probationers act under the instructions and inspection of the training nurses. Six of the probationers received were factory operatives from Manchester. Six women have been trained in the infirmary as district nurses; four of them are now at work in districts, and are giving satisfaction. We have still vacancies for probationers, and it is difficult to find women up to the standard required to make good nurses. The Home is found to be particularly comfortable, cheerful, and healthy. It has thirty-one separate dormitories with a single bed in each, and these, with fourteen beds which will shortly be at our disposal in the infirmary, will allow of a staff of forty-five nurses and probationers. At present much less is being done for the mental improvement of the young women than your superintendent wished or intended, owing to the constant need for their services in the infirmary. This will be different when there is a larger staff. A library in the nurses' day-room is commenced, which will, we trust, conduce to their culture and recreation. We regret that we have as yet only been able to spare four or five for duty as private nurses; even with a much larger number we should have been unable to meet the demand that exists for them. District nursing has been much impeded both in extent and usefulness by the delay necessary to find and train good nurses."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

To Correspondents.—A Clinical Lecture by Mr. Paget, Surgeon to St. Bartholomew's, on "Some Cases of Local Paralysis," will appear next week.

J. B.—Write to Mr. Randall, the Secretary to the Court of Examiners.

Professor Gamgee's letter is in type, and shall appear next week.

If "T. T." will favour Mr. Capes, London and Provincial Medical Protection Society, 43, Lincoln's-inn-fields, with his name and address, he will forward him a prospectus, and put him in possession of the information required.

Singular Advertisement.—In reference to the singular advertisement in the *Gazette des Hôpitaux*, announcing that there were openings for French Medical students in the English Hospitals, who would receive pay for their services, we find the *Union Médicale* cautioning its readers against the deception being practised, and stating that several students have had to regret the loss of money and time in consequence of heeding the notice in question. What can it all mean?

Cattle Poisoned.—A singular accident occurred on Sunday night last, at Coneysthorpe, by which ten of Lord Carlisle's cattle were poisoned. The beasts, it seems, were grazing in the "Gripe," adjoining a nursery ground, and being covered with snow, the cattle seemed to have been attracted by some evergreens. They had broken through the fence, and fourteen of them had eaten of the common dwarf yew (*taxus baccata*), one of the British evergreen shrubs, the foliage of which is well known to be poisonous. The beasts strayed upon the green in the village of Coneysthorpe, and aroused some of the inhabitants by their moaning. Three died in a few minutes, and although every care was taken to procure antidotes, seven more died before 9 o'clock on Monday morning. The other four are recovering.—*Malton Messenger*, February 27.

Syphilis at Malta compared with the Home Ports.—The reference made by Lord Clarence Paget in a late debate in the House of Commons on moving the navy estimates, to the amount of venereal disease in the navy, led to some remarks on the subject from Sir Morton Peto, who instanced the good results which have attended the enforcement of sanitary laws at Malta. Our readers may not be aware that the late freedom of Malta from venereal disease is mainly due to the efforts of Dr. A. Armstrong, of the Royal Navy. In a letter published in the *Times* of Monday, March 7, Dr. Armstrong gives an account of the circumstances under which the reform was introduced, and the results which followed—results, we assert, which should lead to the introduction of similar sanitary laws in all the seaport towns in the kingdom. The following is an extract from Dr. Armstrong's letter:—

"It will be remembered that the naval force in the Mediterranean underwent a great augmentation in 1859-60, when we had, I think, the largest fleet ever known before on that station, amounting at one period to upwards of 40 sail of pendants, 16 of which were line-of-battle ships, and the aggregate number of officers and men employed was little short of 17,000.

"On assuming the duties of my appointment in 1859, I was surprised at the number of cases of the disease that were then in the Naval Hospital, which had been contracted in the island, and were daily on the increase. On inquiry I learnt that a police regulation (non-compulsory) formerly in force for the prevention of evil, had been in abeyance for a very considerable time, for reasons into which it is unnecessary here to enter, and hence the spread of this gigantic evil to a frightful and almost universal extent among the unfortunates of the island.

"I at once saw what a fearful amount of aggravation would result from the presence of the fleet in harbour, and immediately represented the same in the proper quarter. Fortunately the political state of the Mediterranean at the time kept the bulk of the fleet absent from Malta until the spring of 1861, otherwise direful results must have ensued, and the Hospital accommodation would have proved inadequate for its wants. Previous to this period the force at Malta from time to time was comparatively small; it proved sufficient, however, to occupy from forty to fifty beds daily in the Naval Hospital (where none but the worst cases were sent) from disease contracted in the island, to say nothing of a great increase to the sick lists of the respective ships.

"It is at present unimportant to allude to the failure of my early efforts on this question, but on the return of the Commander-in-Chief, Vice-

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Admiral Sir W. Martin, to Malta in 1861 I made a very strong representation, both personally and by letter, officially, on the subject, which met with the attentive consideration that its great importance demanded; and I now gladly acknowledge the support that I received from Sir W. Martin and Vice-Admiral Codrington in connexion with this matter.

"The question was then brought before the Governor and Council, who, with as much promptitude as official forms would permit, passed a law, based on my recommendation, in June, 1861, which was at once put in force with the happiest results—results which greatly exceeded the sanguine expectations I had formed, as may be judged from the fact when I state that the evil was at once arrested; and from that time up to the period when circumstances of a private nature compelled me to resign my appointment, about two months ago, there had not been a single case of the disease received into the Naval Hospital that had been contracted at Malta, embracing a period of upwards of two years and a-half; and, as far as I could learn, the disease had then no existence in the island.

"I willingly embrace this opportunity to bear testimony to the admirable and efficient manner in which the police authorities, under the control of the Civil Government, enforced the law, with such excellent and, indeed, unprecedented results."

Army Medical Department.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In reply to a letter signed "Medicus," relative to the retirement of Army Surgeons, I beg to state that he says what is a decided mistake. I will assert that it is the earlier retirement at twenty or twenty-one years which is wanted, as many men will leave when they are forty-two or forty-three years of age, and in the prime of life.

The few old Surgeons-Major who might resign if the retirement were better do not bother the Department much, and would make very little difference in the promotion of the Assistant-Surgeons. Every one is crying out for the early retirement, and it is the grand topic everywhere.

I am, &c. Truth.

The Alleged Proposal to Remove the Medical Society of London.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—By the publication, in your number of the 12th inst., of a letter from the Council of the Medical Society of London, denying the existence of any foundation for the assertion which I made in your impression of the 5th inst., in reference to the removal of the Society's chambers, I am compelled to state the following facts:—

A few weeks since, while the house-list of office-bearers was under discussion, an honorary officer of the Society, holding a post of much responsibility, asked two of the Fellows whether, in the event of their nomination to the Council, they would support a proposal for the removal of the Society to Queen-square. On being asked what object there could be for such removal, he assigned the reasons stated in my former letter. One of the Fellows having expressed his disapproval, the honorary officer asked him whether he would not vote for it if the majority of his colleagues in Council were in its favour.

Now, I would ask, is it probable that an influential official of the Society would, *motu proprio*, proceed to canvass the opinions of the Fellows unsupported by any of his colleagues?

I think I have now stated sufficient to show that "there is good reason for believing," etc., and that "a systematic plan is being pursued," etc.; also that there is a party holding office, and possessing influence in the Society, anxious and energetically endeavouring to accomplish the object in question.

I am, &c.

March 12. A Fellow.

The Hygrometer in Bedrooms.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I am rather diffident in offering the following remarks, not being a Medical man. My love of meteorology, however, makes me bolder than I should otherwise be in sending them to you, as the experience of many years in matters relating to the science will probably prevent my making any assertion which I cannot prove. I offer the results of my experience for more than twelve years in regard to constant bronchitis *versus* the hygrometrical state of the air in a bedroom:—

At an early stage in the history of my phthisical condition of lungs, I found that the air of a room heated by an ordinary fire up to the mark which suits me best (65° to 70°), became far too dry for my bronchial tubes. Accordingly I took measures for damping my room, and as I always was in the habit of reading the dry and wet-bulb thermometers in my room, as also of observing sundry hygroscopes (as distinguished from hygrometers) of my own construction, I was never working in the dark as to how damp or how dry the air in the room was. I had long before found that the ordinary means of damping a room were insufficient to produce any decided effect on the wet-bulb. At one time, I even adopted the (to ignorant persons) almost mad trick of watering the floor of the room with a watering-pot. But even this I found insufficient. I think my worthy brother (George F. Burder, M.D.,) first suggested my using a boiler, with a tube extending into the room. I took the hint, and had one made, holding about two gallons. This kind of thing I have used ever since when the air has required damping, and frequently with the most striking beneficial results. For instance, I have sometimes felt a decidedly strong attack of bronchitis coming on when away from the house. On returning to my room, and getting up the steam, I have frequently found it completely quelled in an hour or two. Instead of a constant barking, irritating cough, the cough has so far subsided as only to burst forth once in three hours or so.

But the chief point of my letter, to which I desire to draw the attention of your readers is, that in cold weather it is quite difficult, even with the steam fully on (about a gallon of water turned into the air of the room in two or three hours) to get the room damp enough. I wish to note this fact specially, because many persons, and some doctors, have wrong ideas on this subject. I am careful not to speak out of book. To prove what I say, I will refer to the fact that, during the past winter, for instance, I have had the greatest difficulty in bringing the readings of the dry and wet-bulb as near as 10 degrees to each other, even with the steam fully on. Now, I prefer a damper air than 10° difference (at 70 dry-bulb and 60 wet), but have not been able with my present plan to get it. Without the steam, the difference would have been at least 20°, which would on several occasions, without doubt, have prevented your humble servant from writing this or any letter. I am convinced that the steam has saved my life more than once. My brother, the doctor, I am almost sure, would confirm all I have stated. To sum up. The two "great facts" which I desire to refer to are—1. The immense importance of steam-damping to patients like myself; and 2. The common error of supposing that a room with a large fire in it can be too damp. I beg to observe that I do not offer any opinion on Medical matters in general, but merely speak of my own case. The benefit which I have derived is quite unmistakable. Apologizing for the length of this letter,

Clifton, March 7. I am, &c. William C. Burder.

COMMUNICATIONS have been received from—

Dr. R. P. B. Taaffe; Mr. James Milward; Truth; Mr. J. Pearson Irvine; Ethnological Society of London; Dr. R. Dundas Thomson; Dr. Edwin Worts; Mr. J. Zachariah Laurence; Dr. Charles G. Ritchie; Apothecaries' Hall; Dr. John T. Barrie; Obstetrical Society of London; Pharmaceutical Society; Mr. W. Colles; A Fellow; Dr. Barratt; Dr. T. J. Walker; Mr. H. Fergusson; Dr. A. Keith; Dr. D. A. Reid; Dr. John Roberts; Dr. F. Buckle; Mr. W. Dunnett Spanton; Mr. J. Buckham; Dr. C. Barham; Crystal Palace Company; Royal Medical and Chirurgical Society; Odontological Society of Great Britain; Medical Society of London.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 12, 1864.

BIRTHS.

Births of Boys, 1013; Girls, 949; Total, 1962.
Average of 10 corresponding weeks, 1854-63, 1887·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	852	812	1664
Average of the ten years 1854-63	668·3	648·7	1317·0
Average corrected to increased population..	..	..	1449
Deaths of people above 90	..	..	11

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping cough.	Typhus.	Diarrhœa.
West ..	463,388	2	3	5	..	13	10	1
North ..	618,210	2	8	9	4	11	18	3
Central ..	378,058	1	5	4	2	13	3	1
East ..	571,158	1	15	11	2	23	8	2
South ..	773,175	2	7	15	2	22	14	2
Total ..	2,803,989	8	38	44	11	82	53	9

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·252 in.
Mean temperature	41·5
Highest point of thermometer	53·6
Lowest point of thermometer	27·9
Mean dew-point temperature	36·8
General direction of wind	Variable.
Whole amount of rain in the week	1·54 in.

APPOINTMENTS FOR THE WEEK.

March 19. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

21. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

Medical Society of London, 8½ p.m. Mr. Jabez Hogg, "On Eye Diseases as Determined by the Ophthalmoscope, more especially in Relation to the Diagnosis and Surgical Treatment of Glaucoma."

22. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Ethnological Society of London, 8 p.m. Thos. J. Hutchinson, Esq., "On Certain Native Tribes of Brazil and Bolivia." Professor Busk, "An Account of a Human Skeleton discovered under a Bed of Peat on the Coast of Cheshire." "A Description of some Crania of the Manganjo Race of Negroes on the River Shire in South Africa, with an Account of the Tribes."

Royal Medical and Chirurgical Society, 8½ p.m. Mr. Moore, "On a Method of Consolidating Fibrin in Incurable Aneurisms, with a Case by Dr. Murchison." Mr. Bryant, "On Removal of Stone in the Female Bladder by Urethral Dilatation." Dr. Morell Mackenzie, "On the Invention of the Laryngoscope by Dr. Benjamin Babington."

St. Mary's Hospital Medical School, 8 p.m. Dr. Grailly Hewitt, "Clinical Conference in Midwifery."

23. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m., Middlesex, 1 p.m.; London, 2 p.m.

24. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m., Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.

25. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

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DINNEFORD AND CO., PHARMACEUTICAL CHEMISTS,

Beg respectfully to inform the Medical Profession that they are now Dispensing Physicians' Prescriptions with the

PREPARATIONS OF THE NEW BRITISH PHARMACOPŒIA,

except when otherwise indicated by the Prescriber.

172, NEW BOND-STREET, LONDON.

Pulvis Jacobi ver, Newbery's,

FRAS. NEWBERY & SONS, 45, ST. PAUL'S CHURCHYARD.

CHLORODYNE CHANCERY SUIT.

JANUARY 11th, 1864.

BROWNE AND DAVENPORT versus FREEMAN.

"It was fully proved and established in Court, before Vice-Chancellor Sir W. P. Wood, that Dr. John Collis Browne was the Discoverer of Chlorodyne.

"The Vice-Chancellor observed that Dr. J. Collis Browne's Chlorodyne was known before the Defendant 'Freeman' had ever thought of using the word; that the Defendant's conduct led to a very strong suspicion that there was a gradual course of proceeding on his part to mislead people into the belief that, when they bought his medicine, they were purchasing Dr. J. Collis Browne's Chlorodyne; and that, if the Plaintiffs could show that any one had actually been deceived, an Injunction would be granted."—*Times*, January 12.

Affidavits from eminent Physicians and Surgeons of the Metropolitan Hospitals proved, beyond doubt, that Dr. J. Collis Browne was the discoverer of Chlorodyne; that they prescribe it largely, and invariably mean the original Chlorodyne of Dr. J. Collis Browne.

An Affidavit by Mr. Warington, Chemical Operator to the Apothecaries' Company of London, also established the fact, that Dr. Browne was the inventor of Chlorodyne; that the Company receive large orders for the supply of Chlorodyne for the Public Service, Hospitals, Merchants, and the Profession; and that, when Chlorodyne is ordered, they invariably supply Dr. J. C. Browne's.

Affidavits from Messrs. John Bell, Pharmaceutical Chemists, 338, Oxford-street, and several leading Wholesale Druggists of London, to the same effect, and that, when Chlorodyne is ordered, they invariably supply Dr. J. Collis Browne's.

Sole Manufacturer—J. T. DAVENPORT, 33, Great Russell-street, Bloomsbury, London.

In Bottles, 1 oz, 3s.; 2 oz., 5s.; 4 oz., 8s.; 10 oz., 15s.

Neither Physician nor Surgeon in plaintiff's suit even mentioned Freeman's compound; so much for the *truth* of its being the *preferred* medicine, as stated by the defendant. It is equally untrue that the Vice-Chancellor intimated in the slightest degree that the defendant had the right to the sole use of the prefix Original, as quoted in his advertisement in the "Pharmaceutical Journal," March 1, 1864.

The observations of the Vice-Chancellor, as reported in the "Times," speak for themselves.

Each Affidavit from Physicians, Surgeons, and Chemists affirms that Dr. Browne's Chlorodyne was known to them in 1855; whereas the Defendant "Freeman's" Compound was not heard of until 1859, after the Original Chlorodyne had obtained world-wide fame.

THE ORIGINAL CHLORODYNE.

INVENTED AND MANUFACTURED, IN 1844, BY RICHARD FREEMAN.

By the decision of Vice-Chancellor Sir W. Page Wood, R. Freeman is entitled to the SOLE *right to use the word* ORIGINAL *as a prefix to the word* CHLORODYNE.

The large and still-increasing demand which the Inventor has for this therapeutic is evidence of the high estimation in which its properties are held by the Profession generally; and on a recent occasion a number of eminent London Physicians and Surgeons of long standing in the Profession, and who hold public appointments, made affidavits to the fact that Freeman's Original Chlorodyne is a more certain and reliable, a more valuable and a preferable, preparation to that of any other maker's. It is offered to the Profession as the best preparation of the kind, and at a price which places it within the reach of the poorest sufferer.

MANUFACTURED BY THE INVENTOR,

RICHARD FREEMAN, PHARMACEUTIST, KENNINGTON-ROAD, LONDON, S.;

And Sold by all Wholesale Druggists in green Bottles, 1 oz., 1s. 6d.; 4 oz., 5s.; and 8 oz., 8s. 6d.

Any member of the Profession who has been deterred buying or prescribing Freeman's Original Chlorodyne through the statements of Brown and Davenport in advertisements or otherwise, will greatly oblige R. Freeman by communicating with him.

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ORIGINAL LECTURES.

CLINICAL LECTURE ON SOME CASES OF LOCAL PARALYSIS.

DELIVERED AT

ST. BARTHOLOMEW'S HOSPITAL,

ON FEBRUARY 6, 1864,

By Mr. PAGET.

THE subject of the lecture was a man, aged 23, who was in the Hospital, with total paralysis of the left upper extremity. From the House-Surgeon's note, it appears that five weeks ago he was driving a cart, while in good health, and was pitched out of it upon his head. He was stunned, and remained insensible in the London Hospital for fifteen or sixteen hours. At the same time he cut his face and bruised his left elbow. On recovering himself he found he could not use his left arm. He does not know what parts of his body were injured, but he knows that he never had any bruising over his neck or upper arm; but there are still-bruise-marks along the forearm. With the exception of transient headache, he suffered no inconvenience from cerebral disturbance.

He left the Hospital at the end of nine days with his limb useless to him. He has attended there as an out-patient without any improvement from rest of the limb or friction with liniments. Soon the arm began to waste, and occasionally he has had very intense pain from the shoulder to the fingers. He looks well, and feels in perfect health. His left arm hangs heavily in his other hand; he has absolutely no power over it, and can only lift his shoulder. On his thumb and forefinger are two sluggish ulcers, the result of his holding his hands closely to a fire without feeling it too hot. The upper arm is very flabby and wasted; the forearm the same, though in a less marked degree; it feels slightly warmer than its fellow. He has no sense of temperature, and does not know whether his finger is dipped into hot or cold water. The limb is rather duskier than the opposite arm, but there is no sensible difference in the pulse on either side. Sensation is better in the upper and inner part of the upper arm than in any other portion of the limb, perhaps from the intercosto-humeral nerves being unaffected; but there is also some sensibility in the outer part of the upper arm. The left pupil is smaller than the right, but both act equally well, and there is no defect of sight in either eye.

The condition of this man's arm must be ascribed, I believe, (Mr. Paget said) to some injury of the brachial nerves—probably, though it is not evident how it happened, to an injury of the brachial plexus at the base of the neck or in the axilla. Such concussion as he suffered is not at all likely to have caused complete paralysis of one arm without any other symptoms of injury to the brain or spinal marrow; and the characters of the paralysis, its completeness, the coldness of the limb, its wasting, and the occasional severe pain, and the sloughing of the skin after moderate heating, are just like the consequences of division or great damage of the nerve trunks. Nearly all these things have been observed in two other cases that I have seen. In one of them (a little girl about 7 years old) a ladder fell on the back of the left shoulder, and then broke her leg. The exact manner of its fall was not known, but the integuments over the scapula and by the side of the neck were severely bruised. She was stunned and unconscious for less than ten minutes, and then perfectly recovered her senses. As soon as she had recovered from the shock she called out "Where's my arm," and from that moment to the time at which I first saw her (about four months after the accident) there had been perfect insensibility of the arm. It had been for a time painful subjectively, and there were some kinds of contact which distressed her, but she could feel no common touch, no heat or cold, and had only morbid sensations either spontaneously or from some irritation. There had been also total loss of motion in the arm till within a month before I saw her, when the pectoral and posterior scapular muscles had regained slight power. Every part of the arm had greatly wasted, and it was habitually cold, with slight swelling and congestion of the hand.

Cases of so complete paralysis and of wasting and neuralgia of a whole limb from an apparently insufficient injury of its nerve-trunks, and with no signs of injury of the brain or spinal cord, are very rare. But cases in some degree resembling them are those of an arm or leg, from violent pulling. Violent dragging at a dislocated humerus has been followed, I believe, by paralysis of the muscles not only of the shoulder but of the whole arm; and more simply, a child lifted by the arm has had permanent paralysis of that limb. And the force required to do this is not great—one child may thus paralyse the limb of another.

Some years ago I was consulted about a little boy, 9 or 10 years old, whose left arm, when he was an infant, was violently pulled by a little brother, and from that period, for a long period, appeared powerless. But he had gradually gained some use of it, and, when I saw him, could move it in any way, and was fond of climbing with it. It was, however, comparatively very weak, and was small, like one extremely emaciated. It was not short, but altogether not more than two-thirds of the size of the other.

Such injuries are rarer in the lower extremity, but here is an instance of one:—

A gentleman, nearly three years before I saw him, was thrown over his horse, and dragged along for a quarter of a mile with his right foot in the stirrup, and with his face downwards, and his left hip-joint exceedingly on the stretch. Since that time he had had partial paralysis of the right limb, lately rather increasing. He dragged the limb after him, but it was little, if at all, wasted, and the muscles on the thigh acted moderately well.

Another group of cases, which are probably of the same kind, are those in which pressure upon nerve-trunks, either severe or long-continued, may have similar consequences.

It has happened that a man going to sleep with his arms hanging over the back of a chair has, on awaking, found both arms paralysed, and so they have long remained—a result that we can ascribe only to pressure on the brachial nerves producing a more abiding consequence of the same kind as that numbness and so-called deadness of the limb caused by sitting on the ischiatic nerve.

I have known a similar result follow tight ligature.

A gentleman, subject to epilepsy, consulted me a few years ago, and gave this history of the case:—He was a strong, muscular man, and in the two years before had had several slight, and some severe epileptic seizures, and the slighter ones were generally preceded by half-a-minute's mania. In one of these, a month before I saw him, he was seized by six labourers, who, in their fright, and against his violent resistance, tied him down, and tied his feet and hands and arms with strong, thin cords. The cords on his feet and body gave him only temporary trouble; but those on his arms and wrists did greater damage. They were twisted and tied as tightly as possible, and kept on for a long time, I think for some hours. The marks of some of their coils, in bands of bruised and brownish skin, were still distinct when I saw him. When he was set free, his hands and wrists were powerless and insensible; he described them as "dropping," like those of one with lead palsy. Soon after the arms began to swell, and in the next four or five days they were in such a state of inflammatory œdema, that it was expected that portions of them would slough, or that there would be extensive suppurations, as with phlegminous erysipelas. For three weeks after the injury he scarcely slept, on account of the severe pain in the injured parts. After the swelling subsided (which it did without suppuration) he began to regain slight power over the muscles, and slight and increasing sensibility of the hands; but at the same time, as well as, perhaps, during the swelling, a considerable wasting of the muscles of the forearms and hands ensued, so that, though they had been very robust, they now quickly became slender and puny. His general health suffered, but not severely. When I saw him, his condition was greatly improved, and he seemed evidently recovering all that he had lost. His arm bore still the marks of the cords both above and below the elbows. All the muscles below the elbows were wasted; but the wasting was chiefly evident at the wrist, and, most of all, in the muscles of the ball of the thumb and of the little finger. Both his hands were ready to "drop" when he raised his forearms; but he could just hold up his left hand, and in this he could just bring out finger to the thumb, etc. In this hand, too, he had regained sensibility, enough to feel when and where any part of it was touched, but not enough to discern objects minutely. The hand had fairly regained its shape and size, but the skin of the finger was smooth and glossy, and the cuticle of all the palmar surface had peeled. The right hand had recovered very little power; he could

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scarcely raise it, could hardly bring any finger to the thumb, and could hold nothing. Except in a few parts here and there, also, the skin of this hand was nearly, or, in some places, completely insensible. Both hands were occasionally the seat of pain; they were both also very apt to become cold; movement and pressure did not increase the pain. There was no displacement or injury of bone or joints, and no deep-seated disease could be felt. The general health was good, and the pulses were natural.

Another case of a somewhat similar kind came under my notice some time ago. It was that of a lady who, ten weeks before I saw her, when she was playing with some children, had fallen on her face, while she had her wrists tied very tightly together behind her with a silk handkerchief. In her fall she pulled her right hand out from the handkerchief tied round the wrist; and, in the instinctive effort to release her hand and save herself in falling, she pulled with great force, at the same time that the pull was resisted by the silk handkerchief tied round the wrists just above the joints. No sign of displacement or fracture was found by the Surgeon who saw her directly after the accident. The pain was not severe nor was the hand quite disabled, there was but slight ecchymosis, and no indication of her having fallen on the hand or struck it. But the hand remained after the injury very weak and very stiff, so that she could hardly move her fingers, and in all the distribution of the median nerve it was so numb that she doubted whether she could feel at all with it. Complete rest for the hand and arm were observed; warm applications, etc., were used. But when at the end of five weeks attempts were made to move it, and use friction and liniments, swelling took place about the back of the hand and the fingers, and they became hot, and red, and glistening. The numbness no longer existed, but she had more pain, and no more ability of movement. The same state of things continued to the time at which I saw her.

In both these cases the loss of power and the defect and disorder of sensation were so much greater than any other consequences of the injury, that one cannot doubt a predominant injury of the nerves in the forearm. But its effects were complicated by the damage of the muscles and fibrous textures, and the consequent hardening and adhesion of their structures.

From all the cases together, it is evident that long-continued paralysis of both motion and sensation, attended with rapid wasting, and more or less of neuralgia, may ensue as a consequence of such injury of nerve-fibres as, probably, falls far short of rupture or destruction of their substance, and that these things, in an extreme degree (as in the young man now in the Hospital), be due to an injury which, neither in its manner of occurrence nor in any other attendant character, would seem to have fallen with special severity on the nerve-trunks. It would seem as if the nerve-trunks might be rendered long incapable of their functions by such injury as, when occurring to the brain or spinal cord, we call concussion.

I am not acquainted with any case of the kind in which actual examination showed the state of the nerves. The exact pathology of the case is therefore unknown to me.

But of their treatment. It must be somewhat different in the cases of simple paralysis and in those that are complicated with inflammatory hardening of textures, neuralgia, and other various symptoms.

For the former—for that of the man in the Hospital, for example,—the main design must be to maintain the nutrition of the limb, notwithstanding its inaction. And for this purpose there must be provided, in addition to whatever may be required for the maintenance of vigorous general health,—

1. Constant warmth of the limb; the whole body must be warmly clothed; the paralysed limb and its fellow especially so. No good or quick repair will take place in a cold limb.

2. Regular friction and shampooing, especially circular shampooing.

3. Localised galvanism, that every several paralysed muscle may be made to contract.

4. Constant voluntary efforts; constant endeavours to attain every lost movement; and when any such endeavour is effectual, frequent exercise of the recovered power.

5. Swedish gymnastics, *i.e.*, set exercises for each muscle in which power is not wholly lost.

6. Guards against distortion from unbalanced actions of muscles, especially contracted fingers or elbows.

With these things patiently, that is, year after year continued, much good may be achieved. In the case already mentioned as exactly like that of the young man in the Hospital, great good has been gained by a year's treatment; she can now move the elbow in flexion and extension, and draw the upper arm inwards, and slightly bend and extend the fingers. There are very distinct sensation in the whole arm and hand, and freedom from all pain; the natural temperature has been restored, and she has ordinary sensations of heat and cold. Galvanism seems to have done special good; the arm was observed to become weaker when it was omitted for a week.

But for the more complicated state, though the treatment must be essentially the same, it must be gentle, with less of galvanism, and less force of movement, and less of voluntary exercise, for these can rarely be borne as they can be in the cases of simple paralysis.

In both the cases which have been referred to of complicated injury to the structures above the wrist, much improvement has taken place. Two years after the accident, the first of these cases was reported to me as being much better; and of the second, the last note that I have (more than two years after the injury) is, that the hand was much better; the thumb and fore-finger could be easily brought together, and all the fingers had become much more moveable.

Two symptoms referred to in some of the preceding cases deserve particular notice; namely, what I have called the glossy state of the fingers, and the inequality of the pupils.

Glossy fingers appear to be a sign of peculiarly impaired nutrition and circulation due to injury of nerves. They are not observed in all cases of injured nerves, and I cannot tell what are the peculiar conditions of the cases in which they are found; but they are a very notable sign, and are always associated, I think, with distressing and hardly manageable pain and disability. In well-marked cases, the fingers which are affected (for this appearance may be confined to one or two of them) are usually tapering, smooth, hairless, almost void of wrinkles, glossy, pink or ruddy, or blotched as if with permanent chilblains. They are commonly also very painful, especially on motion, and pain often extends from them up the arm. In most of the cases this condition of the fingers is attended with very distinct neuralgia both in them and in the whole arm, and its relation to disturbance of the nervous condition of the part is, moreover, indicated by its occasional occurrence in cases where neuralgia continues after an attack of shingles affecting the arm. In two such cases I have seen this same condition of the fingers well marked, and only very slowly subsiding, and seeming unaffected by the ordinary treatment of neuralgia.

The inequality of the pupils is well marked in the man now in Darker Ward. The pupil on the injured side is always smaller than the other, but they both act equally well, and there is no defective sight. The same condition has existed ever since the injury in the young lady whose case I related next after his. Her right pupil, corresponding with the paralysed right arm, is always smaller than the left, and there is a very slight appearance, which is said to be increased when she is not in perfect health, as if the right eye were a very little smaller or less open than the left.

My attention was called to the existence of this inequality of the pupils by Dr. Hughlings Jackson, who suggested also what seems not improbable, that it may be due to the relations of the brachial plexus to the cilio-spinal portion of the spinal cord.

EPIDEMIC OF VARIOLA AT PADUA IN 1863.—During 1863 there were 365 persons attacked—193 males and 172 females. Of these, 110 suffered from variola, 210 from varioloid, and 45 from varicella. There were 32 deaths, and 32 still remained under treatment. Of the 365 individuals, 344 had been vaccinated and 21 were unvaccinated; and of the 32 deaths, 5 took place among the latter.

PRIZE QUESTIONS OF THE MADRID ACADEMY OF MEDICINE.—1. The Progress of Anatomy during the first half of the 19th century, and the influence which this has exerted upon that of Medicine; 2. A critical account of the means employed for the Treatment of Rheumatism, and their differential indications; 3. The Actual Condition of Surgery, and the causes which retard its progress; 4. The Regimen suitable for Soldiers and Sailors, the Sick and Prisoners; 5. The limits of usefulness of Medical Statistics on the Progress of Practical Medicine; 6. Fatty Matters, and their action on Salts and Chemical Agents in Pharmacology. Essays, written in Spanish, Latin, or French, to be sent to the Academy before September 1, 1864, in competition for the four first subjects, and September, 1865, for the two last.

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LECTURES ON THE BRITISH PHARMACOPŒIA: ITS CONSTRUCTION, ITS COMPARISON WITH THE LONDON PHARMACOPŒIA, AND THE VALUE OF ITS NEW REMEDIES IN THE TREATMENT OF DISEASE.

DELIVERED AT

The Royal College of Physicians,

By A. B. GARROD, M.D., F.R.S.,

Fellow of the Royal College of Physicians; Physician to King's College Hospital.

LECTURE V.,(a) FEBRUARY 9.

(Continued from page 304.)

There are many substances contained in the London which have been omitted in the British Pharmacopœia. Had time permitted, I would have noticed several of these, but I must confine my remarks to two only—namely, the Acetate of Morphia and Lettuce; and in speaking of these omissions I shall take a slight survey of the preparations of opium and the salts of its alkaloids, which I hope will prove of some interest and practical value.

In the first place, I may state that all the preparations containing Opium are now named so as to indicate the presence of that drug, even those which in former Pharmacopœias concealed the fact; thus,—Pilula Saponis Composita becomes Pilula Opii.; Pulvis Ipecacuanha Compositus, Pulvis Ipecacuanha cum Opio.; Pulvis Kino Compositus, Pulvis Kino cum Opio.; Tinct. Camphoræ Composita, Tinctura Camphoræ cum Opio.; and Unguentum Gallæ Compositum, Unguentum Gallæ cum Opio. Doubtless there will be many strong opinions expressed as to the propriety of these alterations in name, some probably of a not very favourable kind; but I may state that the subject engaged much attention from the Pharmacopœia Committee, and, after mature consideration, it was thought that any inconvenience which might occasionally arise from certain patients being aware that Opium was being administered to them, would be more than counterbalanced, in the present age, by the absence of any attempts at concealment, and by all the more important medicinal preparations bearing the name of their most active ingredients.

Before going more into detail, I will first take a rapid glance at the components of the drug, upon which its value depends. Morphia is, *par excellence*, the important principle of Opium; almost all the good effect of the remedy may be obtained from its employment. It certainly possesses its anodyne and soporofic powers; still, a very slight examination of the composition of Opium will show that it cannot be the sole active ingredient. Good Turkey Opium contains about 12 per cent. of Morphia, estimated as the hydrochlorate of the alkaloid; it follows, therefore, that if the whole power were dependent on this principle, we should find it much more potent than it really is; the hydrochlorate should, in fact, be about eight or nine times the strength of the crude Opium, whereas it is scarcely four times as strong. This is a point to which I have paid some attention, and, in order to determine the relative powers of the two remedies, have selected patients suffering from pain of a chronic character or habitual restlessness,—patients who were intelligent, and whose veracity could be depended upon. To these I have administered, at one time Opium itself, at another Hydrochlorate of Morphia, without the patient being at any time aware of the alteration from one to the other. From numerous trials made in this way I have become satisfied that Hydrochlorate of Morphia is about four times stronger than Opium, both as an anodyne and as a soporific.

We must hence conclude that Opium contains active principles or ingredients other than Morphia.

Let us examine the action of some of the other constituents.

A second alkaloid—*Codeia*—exists in Opium in very notable quantities, and is prescribed, both in this country and more especially in France, as a substitute for Opium and Morphia. It is asserted by some to possess the soothing properties of the latter drugs, without giving rise to the uncomfortable symptoms so often arising from their administration. I will give the results of my experience of the action of this alkaloid.

Perhaps many of my hearers may remember that not long after the first employment of the Hydrochlorate of Morphia as a remedy, and when it was known to be accompanied with the Hydrochlorate of Codeia, that the irritation of the skin occasionally witnessed after the use of Opium preparations was ascribed to the presence of Codeia; that such an opinion is erroneous can be easily demonstrated, for when Hydrochlorate of Morphia is completely freed from Codeia, as it is in commerce at present, it still produces irritation of the skin in certain individuals; and again, when a salt of Codeia is given alone to the same patients, no such symptom is manifested: this I have proved by clinical observations. We have next to inquire whether Codeia produces the good effects of Opium or Morphia. I have endeavoured to test this in several cases. In one instance, that of a patient having a tumour in the orbit, giving rise to neuralgia in the branches of the fifth nerve, of daily recurrence, I had a good opportunity of putting this question to the test. I may state that half a grain of Hydrochlorate of Morphia always allayed the pain, and, in fact, relieved it completely for a time. This having been proved by repeated trials, I proceeded to give the same amount of the Hydrochlorate of Codeia; but its administration was not followed by any appreciable effect upon the pain. In other trials it was increased until five grains were administered, but still there was an absence of relief. Similar trials upon other patients have led to the same result; so that I feel quite satisfied that Codeia does not possess the anodyne powers of opium or morphia. To test the soporific properties of Codeia, I have given it in doses varying from one to three grains in cases of restlessness or wakefulness in which morphia has previously been shown to prove efficient, but in every case have failed to observe that any powers of inducing sleep were manifested. From my own clinical experience, therefore, I am forced to conclude that, although Codeia does not give rise to any of the disagreeable symptoms of morphia or the ordinary preparations of opium, yet, at the same time, it is devoid of their valuable properties; and, in fact, that it is a drug possessing slight, if any, known curative powers; whether it has any marked influence upon the spinal system, is a point perhaps worthy of consideration.

Another substance, Narcotine, a nitrogenised principle, contained somewhat largely in opium, deserves a few words. When first discovered, it was supposed to be the active ingredient of opium; to it was afterwards ascribed the stimulating properties of the remedy, but it has since been shown that both these assertions are altogether erroneous, and that, if it possesses any remedial powers, it acts rather as a tonic and antiperiodic. The late Dr. Roots, at St. Thomas's Hospital, demonstrated its inertness as an anodyne and soporific, and I may add that I have repeatedly given from ten to thirty grains of the Tartrate of Narcotine without the production of any symptoms.

The peculiar acid of opium, Meconic Acid, is likewise devoid of any detectable remedial or poisonous properties.

To what, then, can be ascribed the excess of power which opium possesses over its contained morphia, seeing that neither the codeia, the narcotine, nor the meconic acid exert any appreciable influence? We must remember that opium is very complex in its composition, that it possesses many other alkaloids and neutral principles, whose action on the system is not understood; and besides these, there always exists in opium a considerable quantity of resinoid matter, and to this latter substance much of the difference between opium and morphia is doubtless to be ascribed.

These Resins, for they are numerous, are more or less soluble in water, especially if the solution be acid, as is the case with that of crude opium; they are also soluble to a much greater extent in spirit, and hence the various pharmaceutic preparations of opium are more or less impregnated with them. I have had several opportunities of giving these resins, and the symptoms exhibited have been giddinesss, nausea, and strongly-contracted pupils, without any very marked sleepiness; in fact, many of the effects which at times render the administration of opium very objectionable. I should feel very inclined to attribute much of the difference in the effects of opium and morphia to the presence of the resinous matter in the former. I speak, however, with some diffidence on this point, knowing that all therapeutic observations require to be frequently repeated before the results can be confidently relied upon.

Having premised these few remarks on the constitution of opium, and on what is really known of the action of its several constituents, we are now better prepared to discuss

(a) Portions, especially of the latter part, of this Lecture were not delivered from want of time

the preparation contained in the British Pharmacopœia. You will observe, and, perhaps, be surprised to find, that the only preparation of morphia introduced is the hydrochlorate, and that the acetate, a salt so long employed and so prized by some Physicians, has been omitted. Why has this been done? We should certainly have some good reason for omitting this old-established remedy. Can we prove that it is unnecessary to retain it in the Pharmacopœia? I believe we can. As I do not know of any other clinical observations on the relative powers of the different salts of morphia except those which I have had opportunities of making, I must trespass on your time for the purpose of giving you the results which I have arrived at. There are many Medical Practitioners who certainly consider that each salt of morphia has peculiar powers; from what I have gathered in conversation and otherwise, I find that some look upon the acetate of morphia as possessing the property of determining powerfully to the surface; upon the sulphate as being much more of an irritant than the acetate or hydrochlorate; upon the meconiate (the salt existing in opium itself) as being milder in operation than the rest; and so on for the various other combinations of this alkaloid. On more closely questioning, however, the grounds upon which such assertions have been made, I failed in every instance to discover their validity; those who advocated the advantages of the acetate, had made no real or sufficient trials of the hydrochlorate, and the same remarks equally applied to the advocates of the other salts of morphia. I have carefully and clinically examined this subject, and will state my evidences and my conclusions.

I have been particular in selecting the subjects of these observations, and, among others, have chosen the man before referred to, suffering from neuralgia of the fifth nerve due to the pressure of an orbital tumour, and without exception I have failed to discover the slightest difference in the action of the acetate, hydrochlorate, sulphate, meconate, tartrate, or phosphate of the alkaloid; but in all these observations I have taken the precaution of giving exactly the same amount of the real alkaloid, not of the salt, for in the various saline combinations a different percentage of morphia is contained. In no one instance could the patient tell which salt was administered, or find any difference in the operation of the medicines. If we reflect for a moment, should we not naturally expect such a result? Suppose, for instance, we give half a grain of the acetate, can we reasonably look for any appreciable effect from the trace of acetic acid therein contained; and the same remark applies to the minute fraction of a grain of hydrochloric, sulphuric, meconic, tartaric, and phosphoric acids, contained in the ordinary doses of their morphia salts; given alone, these small doses of the acids would be absolutely inappreciable, even, I should imagine, to the eye of the homœopathist; how, therefore, can we expect that when in a state of combination their peculiar actions can be detected by the Physician?

If these statements be correct, why should we have in the Pharmacopœia more than one salt of morphia, and, granted that one is sufficient, our object should be to select a salt which possesses properties which peculiarly recommend it.

The Hydrochlorate has these qualifications. It is a well-known salt; has been long employed; is readily manufactured; forms very beautiful crystals, of a definite composition; and is not liable to change on exposure to the air; whereas the acetate is very difficult to crystallise, and is a salt liable to decompose, to lose some of its acetic acid, and to become much less soluble. These are the facts of the case, and probably the consideration of such led to the rejection of the acetate of morphia from the British Pharmacopœia.

In reference to the Tincture of Opium I should observe that its strength is somewhat less than before, but only in the ratio of 437·5 to 480, or of the avoirdupois to the troy ounce. At present one grain of dried opium is contained in about fourteen and a-half minims of the tincture, formerly in thirteen and a-half minims.

An error is very prevalent even now, concerning the strength of the tincture of opium, arising from the circumstance that it has been measured by the amount of solid residue left upon evaporation. But it must be remembered that this residue is not opium, but a weak spirit extract; and if we can prove that all the virtues of opium are extracted by the spirit employed, the strength of the tincture must depend on the amont of the drug used in preparing it. I have repeatedly shown that the residue is inert as an anodyne and soporific, and hence the tincture must necessarily be of such strength.

Of these extracts of opium I shall have occasion to speak shortly, as likewise of the wine.

I must now for a few minutes call your attention to a plant which is contained in the London and Edinburgh Pharmacopœias, but which has not been included in the list of the Materia Medica of the British Pharmacopœia. I allude to Lettuce and its dried juice, Lactucarium.

The Lettuce, more especially the wild plant Lactuca Virosa, contains, as you are doubtless aware, a milky juice, which is exuded when the stem is punctured, and this exudation, when it becomes dry, forms a brownish substance, having a peculiar narcotic odour, not very unlike opium, and a very bitter taste; these tears or masses pass by the name of Lactucarium, a preparation in the Edinburgh and Dublin Pharmacopœias; an extract obtained from fresh juice of the plant, under the name of Extractum Lactucæ, is in the London Pharmacopœia.

There is a very general idea that the eating of the lettuce by wakeful patients predisposes to sleep; also that the preparations of lettuce have powers of allaying irritation, such as troublesome cough and so forth; and the Lactucarium was thought to possess all these properties in an exalted degree, and has been frequently substituted for opium for patients in whom this latter medicine produced disagreeable symptoms.

Have these preparations any remedial powers which entitle them to a place in the Materia Medica? This is a question which I will endeavour to answer, or at least I propose to lay before you certain facts or results which I have recently obtained in the clinical investigation of the action of these medicines. In arriving at these results, I have selected patients either suffering from want of sleep or labouring under spasm, more especially spasmodic cough, or individuals afflicted with painful disorders. The usual dose of Lactucarium, or of the Extract of Lettuce, is, I believe, from five to ten grains. I have carefully observed the action of such doses, but failed to find any influence either in producing sleep, allaying spasm, or alleviating pain. I afterwards gradually increased the amount of the preparations until at last as much as sixty grains of Lactucarium or of the Extract of Lettuce were administered at a time; and these doses have been repeated three and four times during the day. In no one instance did the Lactucarium or Extract of Lettuce produce any direct tendency to sleep, nor in cases where pain was present was relief obtained. These observations were repeated frequently at different times, and on several patients, male and female. At first, on mentioning these results, I was told that the preparations I made use of must be faulty. To assure myself on this point, I made further trials with drugs which I felt sure were the best that could be obtained; but the results of these further observations were exactly the same as those obtained at first; and hence I cannot help doubting the value of Lettuce in the treatment of disease. It is supposed by some that Lactucarium may be usefully employed in cases where the stimulant effect of opium is objectionable. That it is devoid of the injurious effects of opium I am quite willing to concede, but that it possesses the valuable properties of that medicine my own clinical observations lead me to question.

I have occupied these few minutes in discussing the value of a non-officinal drug, feeling assured that the publication of carefully-conducted clinical observations which have led to negative results is as valuable to the Profession as those which have proved the presence of valuable properties in any remedial agent.

(To be continued.)

Treatment of Herpes Circinnatus by Tar.—M. Bouchut, Physician to the Paris Children's Hospital, has employed tar with great advantage both in its vegetable and mineral (coal-tar) forms. One of his formulæ is as follows:—Starch, 1 part; glycerine, 15 parts; mix, and add tar, 16 parts. The patches are to be painted with this morning and evening. Another formula is composed of equal parts of glycerine and coal-tar. The tar may also be used without other admixture. The extension of the disease is at once arrested, and the herpetic patches undergo modification by, upon the average, the tenth to the fifteenth day, the skin, however, not resuming its normal appearance until the twenty-fifth or thirtieth day. The trials made of tar in *herpes tonsurans* were not attended with success.—*Bull. de Thérap.*, vol. lxiv., p. 540.

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A CLINICAL LECTURE
DELIVERED AT
ST. THOMAS'S HOSPITAL.

By FREDERICK LE GROS CLARK, F.R.C.S.,
Surgeon to the Hospital.

(Continued from page 305.)

I have excised the knee-joint in only seven cases, with the following result:—The first case was that of a young woman, who had been the subject of disease for a considerable time, and had been subjected to treatment by rest, moxa, etc.; the knee was not much flexed; her health was failing. The entire surface of the joint, including the patella, was found diseased, and excised. This patient made a speedy and good recovery. She has since married, and has children, and is able to walk with scarcely any perceptible lameness, the joint being firm and immovable.

The second case was that of a boy, aged 13, from the country. The disease was of long standing, and the knee flexed at an obtuse angle. The whole articular surface was removed, and the boy recovered, with a good, useful limb. After an interval of two years this lad came back to me with the knee bent almost to a right angle, in which position it was almost fixed. This deformity had been gradually produced, though, for obvious reasons, more rapidly latterly. The limb was placed on an extending splint, and after six weeks or two months' treatment it was nearly straight. A leather splint was adapted to the knee as a support, which he was directed to wear for some time. There was no pain nor swelling, nor any indication of renewal of diseased action; the anchylosis was not osseous, and had given way under use.

Having failed to take the exact measurement of the limb, as compared with the sound one, when the lad was in the Hospital, I have been favoured with the following memorandum on the subject by Mr. Harland, of Mayfield:—

"The sound leg, from the anterior superior spinous process to the internal malleolus, measures 35¼ inches. The limb on which excision has been performed, from the same point, measures 30⅛ inches. Both of these measurements are straight from point to point; but on measuring the same leg accurately down the bones, from the anterior superior spinous process to a line drawn between the two malleoli on the instep, it measures exactly 31⅛ inches; thus allowing exactly an inch for flexion. The muscles of the sound leg are well developed from use; and the thigh, at the thickest part, measures 11 inches. The lame leg measures, at the same point, 8¾ inches. The boy's health is good, and the joint is firm and but slightly flexed."

The third case was that of a little girl, about 7 years old, in whom the knee was flexed at an acute angle, and she was in a very feeble condition, and of decidedly strumous diathesis. There was much trouble in straightening this joint; there being constant tendency to displacement of the tibia backwards when the attempt was made. The reparative effort was feeble and ineffectual; for the child died before it could be completed. Probably, in this case, life might have been saved if amputation had been performed, though I think it very doubtful. She did not die from the effects of the operation, for she survived two or three months; but fresh disease was set up, and she was exhausted.

The fourth patient(a) was a young woman, who had been suffering for about four months. The limb had been neither confined nor supported, and was flexed at an acute angle, Any attempt to extend it produced extreme suffering. There was no external wound; but her health was giving way under constant and severe pain, which nothing relieved. The disease, in this instance, was not so extensive, but involved the cartilage of both femur and tibia, the articular surfaces of which were excised. She recovered more rapidly than the other cases, from the fact that the tissues on the interior of the joint were less extensively involved. She now walks about, with a stiff and strong limb, but with scarcely any perceptible lameness.

The fifth was a long and tedious case; but ultimately terminated satisfactorily. The patient, a young man, was much exhausted by long-standing disease, and long-continued suppuration at and near the knee-joint. I hesitated whether to amputate or excise; but finally decided to give him the chance of the latter operation. Not only was the entire surface of the joint disorganised, but large abscesses extended up the thigh, burrowing between and under the muscles. Many months elapsed, and many abscesses were opened, before this patient could be got up. He then wore a stiff leather protection around the limb, including the knee, for some time, until it could support the superincumbent weight. There were still some spots of ulceration about the knee when I last saw him; but the limb was otherwise sound.

The sixth and seventh cases are those to which I have just directed your attention, and which may be taken as a type of that condition which is met with, in a more or less advanced stage, in most cases which are suitable for operation.

A remark was once made to me by a Surgeon, whose opinions are entitled to the highest respect, that although he regarded the operation of resection of joints as an important acquisition to conservative Surgery, as thereby amputation was often superseded, yet he feared that not a few joints were subjected to excision which would otherwise have got well by patient waiting and rest. Whether we may be disposed or not to admit the accuracy of this remark, there is no doubt that it was prompted by a just estimate of the difficulties which involve the cases as a class; for it cannot on the one hand be considered a triumph of conservative Surgery to sacrifice a joint which might have been saved, albeit the operation is successful *per se*; nor, on the other hand, is it justifiable to risk life by attempting to save a limb, without any reasonable prospect of permanent relief from a minor operation. There is no doubt that the earlier excision is performed where there is disorganisation in a joint, the better chance there is of the operation proving successful; at the same time it is important that the possible restoration of the joint, or suspension of disease, should not be anticipated by too early an operation; for spontaneous recovery with a stiff joint is preferable to recovery with the superadded risk of a serious operation.

With such difficulties surrounding the subject, conjoined with the obscurity which involves these diseases as regards the actual condition of the textures implicated, it is evident that each case must stand more or less on its own merits, and that familiar acquaintance with joint disease can alone justify a Surgeon in determining the time and character of the operation. Yet there are some general rules which may be observed in determining these questions.

The antecedent history and duration of the disease will be taken into consideration. It may be that the interior of a joint—and I refer more especially to the knee-joint—may have been the original seat of morbid action, or the joint may have been invaded by the extension of disease from without, such as caries or necrosis of the cancellous texture consequent on injury or ostitis from cold. I do not, however, attach much importance to these distinctions; if there is disorganisation of a joint, it does not import much whether the morbid changes are primary or secondary, but I think we may fairly look for a more favourable issue where the primary disease was accidental and occurring in a constitution uncontaminated by scrofula or other disease, the presence of which would impair the reparative effort. I think this point is illustrated in the cases on which I have operated. The duration of the disease is important, as it bears on the extension of mischief, in the form of abscess or otherwise, to neighbouring textures, and in the depressing effect it has had on the vital power of the patient. For, no doubt, some patients would rally after amputation, in whom we could not reasonably anticipate a favourable result after excision. As regards age, all the cases which have come under my care have been in comparatively young persons, which, I suppose, is not peculiar. I am, therefore, not prepared to say how far this element in the consideration of a case should influence the Surgeon in his election between amputation and resection. The actual extent of the disease has an important bearing on the decision. It is not so much a question of how far the joint itself is disorganised, as whether the disease is limited to the articular extremities of the bones involved. The course and termination of superficial abscesses, if such exist, should, therefore, be ascertained; and if, thereby, the presence of advanced disease in the bones, at some distance from the joint, is discovered, it would probably be a justification for amputation rather than excision. In doubtful cases an exploration of the parts would lead to a decision as to the proper method of completing the operation. Under all circumstances, after excision, the sawn extremities of the bones should be carefully examined, to ascertain that they are healthy, free from caries, and holding no sequestrum.

(a) Case related in Clinical Lecture in this Journal. See May 4, 1861.

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I have never had any serious hæmorrhage in resection of the knee, and generally the bleeding is trifling compared with what might have been anticipated. The shock, too, is not usually severe; indeed, sometimes very moderate, and followed by moderate and healthy reaction. Pyæmia is said to be destructive in many fatal cases: of this I have no experience.

The operation itself is simple. I prefer a semilunar incision, extending from condyle to condyle, and across the ligament of the patella. The horns of this incision should extend far enough back to secure a free opening of the joint. The bow-saw of Mr. Butcher is by far the best instrument for removing the diseased surface of the bones; it is admirably adapted for this, as for many other purposes. I prefer making the section of the tibia from behind forwards, and generally, if practicable, remove a slice of the femur corresponding to the convexity of its surface. I have found no inconvenience result from this practice, and the limb is thereby curtailed of less of its length. The patella I have always left, after removing its surface with the saw. To the careful removal, by dissection, of all diseased tissue within reach, I attach great importance.

The limb should, if possible, be placed in its permanent position at once, a suitable splint, with cleanliness and perfect rest, being essential. The flap, being accurately adapted with metallic sutures, needs no other support; and any dressing, beyond a spirit-lotion on a thin rag, if grateful to the patient, is superfluous. Osseous union is probably, in many cases, deferred for a considerable period. In the second case to which I have referred, the union was evidently only fibrous, though the limb seemed sound, and well able to support the superincumbent weight before it became flexed. Where there is any doubt, artificial support should be afforded for some time after the patient is permitted the use of the limb. This case also illustrates the arrested development of the limb in a growing boy; but we still want more extended and accurate statistics on this point before a decided opinion can be expressed as to how far this risk should influence our practice in the case of the knee-joint; for arrested growth, resulting from excision in a very young child, might leave the subject of it even a more helpless cripple in after life than amputation. There is no doubt that the opinion expressed by Dr. Humphry is correct, viz., that, in most instances, if the line of union between the epiphysis and shaft is not interfered with, the growth of the limb will not be seriously impeded. But this rule is not without exception, as proved in the second case referred to by me.

ORIGINAL COMMUNICATIONS.

ON RUPTURE.

By JOHN WOOD, F.R.C.S.,
Demonstrator of Anatomy, King's College, London, and Assistant-Surgeon to the Hospital.

No. V.

The Cure by Operation.

The consideration of the causes and progress of inguinal hernia treated of in the preceding papers will render it evident that, to produce such a closure of the hernial opening as shall prevent either sac, bowel, or omentum from escaping, it will be necessary so to close the tendinous sides of the inguinal canal to such an extent as to restore, if possible, the valve-like action which it exerts in restraining the egress of the viscera. It is evident that this cannot be done by dilating the openings by a hard plug of wood, as attempted in Wurtzer's and Rothemund's methods, nor by invaginating a portion of the skin of the scrotum, as in Gerdy's, nor by merely procuring adhesion of the pillars of the superficial ring, nor obliterating the cavity of the sac by seton, or injection, or by the various other methods which have been tried and failed ever since Surgery became an art. To make the parts strong, resisting, and permanently secure, the aponeurotic passage must be closed entirely up to the deep ring. To do this with safety, so as to guarantee the patient against the severe consequences which often ensue from a direct opening into the peritoneal cavity, such as followed the operations of Schmucker, Langenbeck, Abernethy, and Sharp, it is necessary to give the operation a subcutaneous character.

From the experience of the Surgeons just mentioned, resulting in the failure of almost all the cases where the operations were slight, and in a great fatality where the operations were severe, many Surgeons have been led to doubt whether it be possible, consistent with the safety of the patient, to deal with the hernial structures so effectively as to produce a complete and permanent cure.

Direct and positive personal experience of nearly 100 cases, with the result of more than two-thirds of cures, and only one death (from pyæmia), and treated mainly in a public Hospital where the greater part of the cases have been from time to time publicly exhibited during the last six years, enables me to speak positively as to both the facility and utility of the operations which I propose to describe in the present and next papers.

In the first twenty cases, I used for the purpose of drawing together the sides of the canal, ligatures of stout waxed thread tied over a compress of wood. This, though presenting certain advantages in its flexibility and ready management, I afterwards discarded for stout copper wire silvered over. This substance I have undoubtedly found to give rise to less suppuration and more indurative action, to be less likely to strangulate the parts over much, and particularly to give the power of applying a proper and beneficial amount of pressure upon the deeper parts of the canal during the time that the wires remain in situ.

I now practise two operations for the radical cure of hernia. In both, metallic substances only are used. One operation is for large cases occurring in the adult in which the hernial openings are so large that its sides cannot be approximated without so much strain as to cut out the ligatures before they have effected all the purpose required. In such cases it is advisable to invaginate so much of the fundus of the hernial sac and its coverings as to fill up the openings completely, and to tie upon it the sides of the hernial canal, so as to procure a complete adhesion and blending together of all these structures. The skin itself is not invaginated, because, its surfaces not being capable of adhering together, the hollow glove forming the invagination serves no other purpose than to keep separate the pillars of the superficial ring and to act as a dead weight or drag upon the parts which may have become adherent above, so as gradually to draw them down and reproduce the rupture. This is what generally occurs after Gerdy's and Wurtzer's operations have been performed.

The other operation I employ for smaller cases, and those which are congenital or occur in children and young adults. It consists simply in skewering or trussing together the sides of the canal, along its whole length, by rectangular pins, which are then connected together at each end by loops, and thus are made to compress the canal and sac subcutaneously until the sides have become adherent. This operation is in itself so simple, the after-pain and inconvenience to the patient so slight, and any symptoms so rare, that, after upwards of forty trials of it, with only two failures, I am inclined to place the greatest confidence in it, when properly and carefully done, in those cases which are suitable for its performance.

The Operation by Wire.

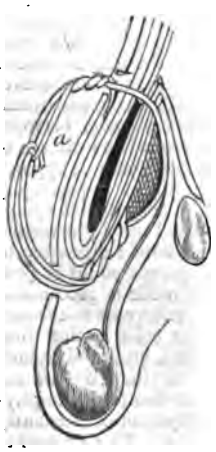
The scrotum and pubis being shaved, the hernia carefully reduced, and the patient placed under chloroform to such an extent as to overcome voluntary motion in some degree, as well as sensation, an inch-long incision with a small tenotomy knife is made through the skin of the scrotum, about two inches below the pubic spine, and directed obliquely downwards and outwards. The skin is then separated at the sides of the incision from the deeper fascial tissues to the extent of an inch on each side. This is done by using the point of the knife flatwise. The fascia thus detached is then invaginated into the abdominal ring and canal as far up as possible, upon the forefinger of the operator, the cord being pushed to the outer side. The lower border of the internal oblique muscle is then felt for, and hooked forwards upon the finger. This brings into prominence at the inner part of the deep wall of the canal the edge of the conjoined tendon. A stout, equally-curved needle, mounted on a strong handle and with a blunt point, is then oiled and carried along the inner side of the finger and made to transfix the conjoined tendon and internal pillar of the superficial ring from the deeper surface. When the point of the needle is seen to raise the skin of the groin, the latter is drawn over by an assistant towards the linea alba before the needle is pushed through it. One end of a well-oiled piece of silvered wire, about two feet long, is then hooked on to the eye of the needle and drawn back with it into the scrotum with a slight jerk. The needle being detached from the wire, the finger is again passed into the

canal and placed behind Poupart's ligament near its middle, this structure being well raised up from the deeper parts, and the cord pushed over to the inner side of the canal. The needle is then passed along the outer side of the finger, and made to transfix the middle of Poupart's ligament from behind. When seen to raise the skin, this latter is drawn outwards by the assistant until the point of the needle can be passed through the hole in the groin before made. The opposite end of the wire is then hooked on to the needle and drawn through into the scrotum, leaving a loop of wire protruding at the upper puncture, the needle being then again disengaged. Next, the sac of the rupture within the scrotal incision is pinched up between the finger and thumb (see Fig. 1),

Fig. 1.

which are made to separate it from the vas deferens and spermatic cord in the same manner as in taking up varicose veins of the scrotum. The needle is then passed across the sac close in front of the spermatic cord. The inner end of the wire is then hooked on to the needle and drawn through across the sac after the needle. The ends of the wire are then twisted down into the scrotal puncture and cut off to about four inches in length. Traction is next made upon the upper loop, by which the lower twisted ends of the wire are drawn into the canal, invaginating the twisted sac up to the deep ring. Three or four firm twists of the wire loop are sufficient to retain the sac in this position, and to draw tight upon it the sides of the inguinal canal. The loop and ends of the wire are, lastly, connected together over a pad of rolled lint, placed at *(a)* Fig. 2, between the wire and skin, and held steady by a spica bandage and compress.

Fig. 2.



During the operation the knees of the patient must be kept well together, and flexed upon the trunk so as to relax the structures in the groin. He must be put to bed in the same position, with the knees and shoulders raised upon pillows.

The first night or two he will usually require a sedative draught, but the necessity for this varies in different patients. If the patient's bowels have been opened by castor oil before the operation, no anxiety need be felt on their account during the first week, when the diet should be milk, eggs, and beef-tea, or a chop after a few days if the patient wishes for it. Pain usually passes off entirely after the first or second day. About the third serum is discharged through the wounds. A little suppuration may then make its appearance, and about the same time the canal becomes distended by a solid effusion of lymph, forming a hard tumour up to the deep ring. In large cases that part of the sac which remains below the wire in the scrotum may suppurate and prolong the cure. In general, however, the wire may be removed about the tenth day. As a rule, the larger the rupture the longer the wire should be kept in. If suppuration be at all free, the unyielding wire forms a very good conductor for its free escape. In some very large cases I have kept in the wire for a fortnight or three weeks.

Very large cases of direct hernia require a somewhat more complicated arrangement of the wire. Thus, I have made the wires cross each other inside the canal, and by applying the needle a fourth time at the scrotal incision have obtained another hold upon the inner and outer pillars of the ring close to their insertion upon the pubis. By this means a large hernial opening is closed by a couple instead of a single stitch, and guarded more effectively against a reprotrusion of the rupture close above the pubis and behind the upper suture. This is especially required in direct cases, whether originally so or converted from olique hernia. These cases do very well generally, though the treatment is sometimes more prolonged than usual. In every case either a complete cure or a more effective support by a truss has been the result.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

CASE OF PHANTOM TUMOUR—APHONIA—CLINICAL REMARKS.

(Under the care of Dr. JENNER.)

Mary Anne G., aged 23, a servant, unmarried, was admitted into University College Hospital October 13, 1861, under the care of Dr. Jenner. She had had measles and rheumatic fever, for which latter she was in this Hospital seven years ago. Before she was in the family-way the catamenia were very irregular. In the beginning of July last she was confined of her first child at the fifth month, the miscarriage being brought on by a fall. Soon after delivery she had shiverings, and, as leeches were applied to the abdomen, probably an inflammatory attack. From that time her abdomen had increased in size. The swelling was at first more on the left side, now more on the right side. She had had pain there ever since. A week after her confinement she had "a fit," and since she had had four more. She said that each lasted two hours. She was probably convulsed, as she said that she required "persons to hold her" during the attack. She has occasionally vomited her food, and also blood at the same time. The fits occurred after the vomiting. She lost her voice at the first fit, and was now as bad with it as at first. She had flooding three weeks after labour, and since thrice at irregular intervals. Catamenia had been absent since her confinement. Her bowels were generally confined.

After some fits she went to sleep, but not after others. She said she knew what went on around, but could not move. She made noise in fits, and bit her tongue and the sides of her cheeks during them. She tried to bite other people, and to get out of bed.

[Dr. Jenner here remarked that the great point of diagnosis between hysteria and epileptic fits was, that in the latter there was loss of consciousness; but it is very difficult to prove loss of consciousness, however, here. She admits that, at all events, in the majority of fits there was no unconsciousness. The biting of the tongue is in favour of epilepsy; but the trying to get out of bed is against the idea that there was unconsciousness in the attack. The not going to sleep after some of the fits is also against the diagnosis of epilepsy. It is always difficult to get out a history, but much more so is it in the case of hysterical people; they follow our questions so in any direction that we may lead them.]

Present Condition.—She vomits food almost every day, and soon after it is taken, and it is, therefore, but very little changed. She is much thinner than she used to be, and she has brought up her food since a fortnight after her confinement. She has also brought up blood for two years, not in any great quantity. It always comes up with vomiting and great effort; but she says that when she has fits of coughing this brings on vomiting.

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[At first Dr. Jenner thought the blood was due to simple ulcer of the stomach, but on inquiry believed that it must have come from some other part.]

[She was of the age for simple ulcer of the stomach, and was just such a person as might have it; therefore there was reason for the inquiry.]

The abdominal swelling, she says, never goes down entirely, though it has been both smaller and larger than at the present time.

She lost her voice for the first time half an hour after her confinement, and never recovered it completely, but could be heard about the room. A fortnight ago she lost it again as at present.

Her loss of voice is considerable, but there is no hoarseness, no laryngeal breathing, no impediment to the entrance of air into the chest. There is (Dr. Jenner says) no disease of the larynx itself; that will cause loss of voice without any of these.

General Condition and Physical Signs.—Rather thin. Clear complexion. Little colour. Mucous membranes rather anæmic. Pupils very large. Aspect generally is that of by no means strongly-marked tuberculosis. Lungs and heart perfectly healthy; thorax well formed. Her abdomen is very much distended, and for this and loss of voice she came into Hospital. The abdomen is resistant, and varies in degree of resonance at different parts. It is smooth, but not shiny, and the umbilicus is not obliterated. The enlargement is greater on the right than on the left, and there the resistance is greater. The abdominal parietes move freely during respiration. There are silvery lines at the lower part of abdomen, the evidence of previous distension. She says that manipulation of the abdomen gives her pain. There is no fluctuation. Voice a mere whisper; it is not hoarse or harsh. There is no tracheal or laryngeal breathing; no recession of any part of the chest walls during inspiration.

November 17.—Under the influence of chloroform the whole of the tumour disappears, and walls of abdomen get flaccid.

The aphonia and tumour were, Dr. Jenner said, both hysterical.

HOSPITAL FOR SICK CHILDREN.

EMPHYSEMA, WITH DOUBLE PNEUMOTHORAX AND PECULIAR TEXTURAL CHANGE OF DIAPHRAGM—TRICUSPID REGURGITATION—SOLITARY KIDNEY.

(Under the care of Dr. HILLIER.)

C. W. R., a boy aged 7 years, was brought to the Hospital for Sick Children on February 2, with the following history:—He had always been delicate; he cut his teeth and walked late. He was much deformed from a lateral curvature of the spine, which had been first observed when he was two years old, and had gradually increased since. He had whooping-cough when four years old, not at all severely; measles followed almost immediately, but was not attended with a bad cough. He had not been subject to chronic cough or shortness of breath. He had from early infancy been subject to two peculiar symptoms: one was that he frequently woke suddenly from sleep in a state of great alarm, which lasted several minutes, and appeared to deprive him for the time of his reason. The other symptom was a difficulty in taking his food; when he had taken a few spoonfuls he would often say that the food would not go down; after waiting a few minutes he would say that it had passed, and he then went on, but was several times stopped in the same way before finishing the meal. This symptom was sometimes absent for several days together. His breath had been short for less than two months, and he had suffered for two or three weeks from palpitations of the heart. He was able to go to school till six days before his death. He had some sickness which lasted a day or two; no loss of appetite.

On Admission he was pale, thin, and suffering from dyspnœa. There is extensive lateral curvature extending from the second dorsal to the first lumbar vertebra, the convexity being to the left. In front there is great flattening under both clavicles; the upper part of sternum is also flat, whilst the lower two-thirds of that bone is tilted forward. During inspiration little expansion under the clavicles, but the muscles of the neck act vigorously in elevating the clavicles. There is a moderate amount of abnormal movement in respiration. The jugulars pulsate freely, and fill readily from below. The right infra-clavicular region is extra resonant; left infra-clavicular also clearer than usual. Respiratory sounds almost inaudible over the right front of chest; on the left side respiratory murmur weak, and expiratory sound prolonged; the percussion note posteriorly also extraresonant on the right side, and respiratory murmur very weak; on the left side the percussion note is clear, and the expiratory murmur is prolonged. Heart's apex beats in its normal situation; over the fourth left cartilage is heard a loud musical murmur, synchronous with the systole of the heart.

The next day he seemed better. He has had several paroxysms of dyspnœa. Takes food pretty well.

February 4.—This morning dyspnœa suddenly increased to a very aggravated degree. He cannot lie down; is very restless; his lips and finger nails are livid; air enters both lungs very imperfectly. He died at four o'clock.

Post-mortem Examination.—Whilst cutting the cartilages on the right side to remove the sternum, air escapes with an audible puff from the pleural cavity. The lung on this side is found lying far away from the anterior chest wall, occupying less than half the cavity close to the spine. On cutting the cartilages of ribs on the left side no air is noted to escape; but a small round opening is seen on the anterior surface of upper lobe of the left lung, about the size of a hempseed, surrounded by a collection of pigment. The lungs being removed carefully, and inflated under water, air escapes from the opening seen in the left lung; no air escaped from the right lung until, by forcible inflation, one or two subpleural air vesicles gave way. In both lungs there are several circumscribed patches of emphysema, each of which is surrounded by an accumulation of pigment; the separate air-vesicles of these portions could be seen with the naked eye, but were none of them larger than a hempseed. The lungs were not generally emphysematous nor otherwise diseased. Right lung weighs $5\frac{1}{2}$ oz.; left lung, $6\frac{1}{2}$ oz. There is no excess of fluid in either pleura. The parietal pleura of the left lung is a little injected. Heart weighed five ounces ten drachms. The tricuspid orifice was notably dilated, measuring $3\frac{1}{2}$ inches; the mitral measured nearly 3 inches. In other respects the heart is healthy. The diaphragm is excessively thick, in some parts measuring more than 3 lines; and on section it is very tough, almost like cartilage; in colour it is paler than usual, and much paler than the other muscles of the body. Under the microscope some of the fibres are found to be normal, most of them unusually large, measuring on the average $\frac{1}{400}$th of an inch in diameter, whilst some are $\frac{1}{300}$th of an inch. In many fibres the transverse striæ are indistinct, and in many others are seen a number of oval nuclei, with a very distinct nucleolus or two nucleoli. Some fibres contained many such nuclei, others two or three only. The œsophagus, stomach, liver, and spleen normal. In the concavity of the spine in the right renal region was found a solitary kidney, not quite of the normal shape; three arteries were supplied to it from the aorta, and there were two ureters proceeding from it. The supra-renal bodies were in their usual positions. The abdominal aorta was atheromatous near the origin of the cœliac axis.

Remarks by Dr. Hillier.—This case presents a number of unusual conditions; besides the solitary kidney, there was emphysema of the lungs, with rupture of a dilated air-vesicle, pneumothorax without fluid in the pleuræ, and a remarkable textural change in the diaphragm. The pleura on that side of the chest in which air was found was not obviously ruptured, whilst the pleura of the other lung was distinctly ruptured, so that air must have existed in the left as well as in the right pleura, and this was, no doubt, the immediate cause of death. The question naturally presents itself, What was the order of sequence and the connection between these morbid changes? I am inclined to regard the disease of the diaphragm as the primary lesion. The microscopic appearances would lead to the opinion that there was hypertrophy with some degeneration of that muscle. The peculiar symptoms noted during the act of swallowing and the night terrors may have been due to an irregular spasmodic contraction of the diaphragm. Is it possible that emphysema could be produced in the same way? Although such a mode of production has not before been observed, it is difficult otherwise to account for its existence and for the ruptured air cells, seeing that there had been no severe cough at any time, and no dyspnœa had existed until within a few weeks of death. We cannot suppose the change in the diaphragm to be due to the emphysema, because much more extensive emphysema is constantly found without any effect on the diaphragm. The change of texture in the diaphragm was too general and extensive to

admit of the supposition that it had been produced within a few weeks of death. The deposit of pigment around the dilated air cells was notable, and seemed to indicate some abnormal state of nutrition in these parts of the lung. An abnormal condition of the walls of the air cells is known generally to precede the dilatation of air cells in emphysema. I am not aware that such accumulation of pigment has been observed in other cases. Whatever theory is propounded to explain the symptoms and morbid appearances, the case is, in many respects, a most puzzling one, and, so far as I can ascertain, quite unique.

BIRMINGHAM GENERAL HOSPITAL.

CASES OF PROPTOSIS, WITH GOITRE AND PALPITATION.

(Communicated by Dr. RUSSELL, Physician to the Hospital.)

THE following case of proptosis affords a useful comment on the very interesting paper on this subject, by Dr. Jones, in a late number of the *Medical Times and Gazette*. Although the causes of exhaustion which had operated so powerfully upon the nervous system of Dr. Jones's patient were not discovered in the present case, and although the disorder of innervation was more local, yet, so far as regarded the function of circulation and of respiration, it existed to as great an extent, and was entirely of the character so well described by him. The remarkably excited condition of the heart and the rapidity of respiration were precisely of the kind most likely to be induced by causes exercising a depressing influence upon the nervous system, though in my patient these symptoms were carried to an extent which far transcended that which is attained in ordinary cases, and indicated that the depressing influence operated with peculiar force upon the cardiac nerves. The lessened diameter of the pupil is also worthy of note in connection with the same subject.

I have added a report of two cases of simple palpitation of the heart as affording a parallel to the case first detailed, by showing that causes of a similar character to those which produce the aggravated form of disease which is the subject of Dr. Jones's remarks, and also in operation in a more common class of cases, resembling, in many respects, the disorder in question, though differing in the comparative mildness of the symptoms and the more localised character of the affection. In each case causes tending directly to exhaust the energy of the nervous centres were manifestly in operation: in one, excessive smoking at an early age, with intemperance and extreme sexual indulgence; in the other, great mental anxiety, which had already produced very baneful effects in the nervous system of the patient. Although in these latter cases the disorder was confined to the heart, they nevertheless afford support to Dr. Jones's hypothesis by exhibiting a cause of like nature producing a similar, though more limited, result.

Case 1.—*Proptosis, Goitre, extreme Palpitation.*

R. P., aged 24, single, servant, was admitted into the Birmingham General Hospital. She stated that enlargement of her thyroid body had been proceeding gradually for a period of fifteen years, but with much greater rapidity during the past seven or eight months. Her health, she stated, was very good; she was equal to her ordinary duties in service, but she admitted that she never took much meat, preferring puddings, and further that she never went much into the fresh air.

Her present condition of extreme nervous sensibility has been coming on for two years, but she is given to understand that she was always "very nervous" when a girl. Since her nervous symptoms have set in, her breath has become short when she walked about, and of late she has been little able to carry a weight, or especially to shake a bed, on this account.

During the same period, too, she has suffered from much beating at the heart, producing throbbing in her neck and ears, but this symptom has not occurred after walking so much as when she is quiet in bed.

Increasing prominence of the eyeballs is also referred to the same period, the preceding two years, but she can say little respecting this symptom, as she herself was unaware of its presence, until her attention was called to it by her friends. Her appetite has not failed, but she has become thinner and weaker; she has noticed slight œdema about the ankles, and she has also slight bleeding at her nose. She has also suffered from headache, but without vertigo.

Her catamenia appeared first at fourteen or fifteen years of age; they recurred regularly until the commencement of her present symptoms, when they were suspended for some time; they subsequently re-appeared, and resumed a normal regularity.

The condition of the patient at her admission was that of extreme nervous excitability. She lay on the bed with her eyes closed, and the lids quivering, or with her hands placed over her eyes. Her neck, and the front of the chest were shaken with each stroke of the heart; the pulsation of the carotids was very visible. Pulse was 136, answering in character to the abrupt impulse of the heart. Respiration was 40, short and hurried, and interrupted by a cough. She spoke in short sentences, each comprised in a single expiration. The veins of the neck were full and prominent. The eyeballs were covered by the lids when the eye was closed, but when it was open considerably more than the entire iris was exposed. The pupils were small. The thyroid body was considerably enlarged, and appeared to be most richly supplied with arteries.

The heart struck the chest with a sharp and violent blow, and over the cardiac region a slight diastolic impulse was sensible, as if from a rebound of the heart; its rhythm was regular. At first examination the sounds of the heart were clear and pure, but on the same occasion, a few minutes afterwards, a sharp systolic bellows-sound became audible over the base of the heart, which was not heard at subsequent examinations. A loud systolic blowing sound was distinct over the neck, and especially over the thyroid body; it was also heard over the entire length of the cervical vertebræ. The sound, though undoubtedly arterial, was more continuous than is usually the case with bellows-sounds, and in this respect approximated to the character of a venous murmur. It was not heard in the subclavian artery.

Over the carotids, and wherever in the tumour an artery was superficial, a strong thrill was felt by the hand, but only in the arteries connected with the tumour and in the carotids, which, be it observed, were deflected by the tumour from their direct course, and compelled to curve backwards. The thrill was not to be distinguished in the subclavians, nor in the superficial arteries of the neck at a distance from the thyroid.

It was afterwards observed that the thrill had left the right carotid, to which it did not return, and that in the left carotid its intensity was much influenced by the position assumed by the patient's head. Moreover, on occasion of one examination, it could not be felt until the action of the heart became tranquil, when it immediately reappeared.

The patient was rather spare, though well nourished, and had the aspect of health. She had light brown hair and eyes. She speedily passed from under observation; I had, therefore, no opportunity of placing her under treatment.

Case 2.—*Palpitation of the Heart—Rhythm not Disturbed—Excessive Smoking from Early Life—Intemperance—Venereal Excess.*

T. F., aged 20, bell turner, was admitted complaining of palpitation. His work was laborious, and his hours of work have sometimes been long. He has lived well, but his habits have been very dissipated. He began to smoke at 13 years of age; at the age of 16 he took to drinking, and seems to have made it a practice to be intoxicated two or three nights in each week, producing intoxication, however, quite as much by the quantity of tobacco which he smoked as by the amount of ale which he drank. He has also been in the constant practice of indulging in sexual intercourse twice or thrice in the week, on each occasion repeating the act two or three times in the course of the night; to this he has added the habit of masturbation, a vice which he still continues. For the last two years he has also had emissions during sleep. He never had any venereal affection, nor any symptom of rheumatism.

He has suffered at times from fluttering at the heart for two years, when he was excited or was overworked, and he has also had some symptoms of indigestion. His present more severe attack of the complaint has been of thirteen weeks' duration; he ascribes its commencement to an effort in raising a heavy weight; he was soon obliged to leave work on account of the palpitation, and of a sense of weakness. He has at times been faint and dizzy, and has suffered from headache, and from muscular pains in his trunk and limbs. His breathing has not been at all affected.

The action of his heart was exceedingly irritable, and very readily excited, especially when he was first addressed; the rhythm was perfectly normal; the pulsations varied rapidly

between 102 and 120; on another occasion between 108 and 112, rising to 120 after a walk along the ward; the impulse of the heart was abrupt, and very diffused; the sounds varied in quality at different examinations; on one occasion they were unusually dull, especially in the region of the apex; on another, the first sound was preternaturally sharp. The respiratory movements were perfect; in frequency 22 per minute. The pupils were below the medium size, and were indisposed to dilate when shielded from the influence of light. The patient presented few symptoms of indigestion; but his attacks of palpitation were especially liable to occur about half an hour after he had taken food, and also when he first lay down at night; they were accompanied with vertigo. He slept well. His spirits were good. He was nervous and much disposed to attend to his complaints; he had a dull, melancholy expression of face. He was well nourished, and did not present evidence of debility. His testes were normal.

The patient has improved under the administration of strychnine. He is now in the Convalescent Institution connected with the Hospital. His urine was nearly healthy. It was free from sugar, but contained oxalate of lime crystals.

Case 3.—Palpitation—Great Disturbance of the Rhythm of the Heart—Prolonged Anxiety—Secluded Life.

Mary ——, aged about 50, of a strumous constitution, and of a very moveable, exciteable temperament, has been for several years exposed to frequent great anxiety, the effects of which upon her health have been much augmented by her leading a very solitary life. Some years ago I attended her through an attack of extreme nervous disturbance, attended with acute mania, consequent upon sudden increase of anxiety. She had also suffered from other nervous derangements besides, due to a similar cause. Menstruation had ceased for some years before the illness to be now described. Her malady consisted of troublesome palpitation, at first coming on only after meals, then being present also in the evening, and afterwards at various periods of the day, though still increased by the presence of food in the stomach. The disordered action of the heart was now excited by the most trifling excitement, by any domestic business, even by the arrival of the postman with letters. The patient also found that matters dwelt unusually in her mind; that at night she could not free herself from the thoughts of the day. She had become hysterical, was apt to shed tears causelessly, and often to talk with unwonted excitement.

Her general health was good. Her functions were all performed naturally. She had neither pain nor vertigo. Her breathing was but slightly affected; indeed, she preferred to take her daily walk.

The heart rhythm was greatly disturbed. Not once during the two months of my attendance did I find the beats succeed each other with a normal progression for above a few seconds at a time. The pulse at the wrist was very feeble. The sounds of the heart and its impulse were perfectly healthy.

Various remedies entirely failed in affording relief. It was doubtless characteristic of the condition of the nervous system with which her disorder was associated, that both sedatives and tonics affected her very rapidly. Thus, fifteen minims of the common tincture of hyoscyanus produced very unmistakable symptoms of narcotism, and a few two-grain doses of quinine caused distinct cinchonism. The patient improved rapidly after the first sign of amendment manifested itself, which was not till the end of the second month.

The cause of the disorder in the following case is not apparent; but the case is inserted as illustrating the uncertainty which may sometimes attend the diagnosis of these disorders of the heart's action, for in the instance now to be mentioned strong reason was afforded by the physical examination of the chest to suspect the presence of some change in the walls of the heart, possibly in the aortic valves also.

Case 4.—Palpitation with Disturbed Rhythm—Cause unknown—Impulse of Hypertrophy—Questionable Bellows Sound.

E. T., aged 24, brickmaker, was admitted, suffering from severe palpitation. He had been in attendance as an outpatient for three or four months; during that period the rhythm of his heart was observed to be greatly disturbed; in other respects the results of physical examination corresponded with those subsequently obtained. The patient's health had been perfect. He had never had rheumatism, nor any œdema. He passed a round worm a year ago. His habits have been perfectly satisfactory. Careful inquiry into the subject of sexual indulgence does not elicit any circumstance of note. He admits occasional intercourse, and has now slight gonorrhœa; but strongly denies any excess, and positively affirms that he has never masturbated. He has been temperate, and has not had any cause for anxiety. He is, however, of a very nervous temperament, and disposed to watch his ailments. His mother, too, is very nervous, and he has an epileptic sister.

His present complaint has been present about six months. He had at first slight palpitation, with some pain on exertion; but soon afterwards the symptoms underwent sudden aggravation, in consequence of his having been startled; on that occasion the beating was so violent that he had difficulty in walking home. He has left work for thirteen weeks, as he was quite unable to perform bodily labour. His breath has not suffered. He has had occasional dizziness, but all his other functions have been performed naturally. Very careful examination failed entirely in connecting the disorder with derangement of any particular organ; the sole circumstance which evidently increased the palpitation was muscular effort. His urine was quite healthy. Much care was taken to ascertain the presence of worms, if any existed, but with negative results. He was well nourished, and seemed in good health.

During the patient's residence in the Hospital the rhythm of the heart's action was regular; but the action was excited, and the frequency of pulsation was very variable—from 60 to 72, from 60 to 110, from 116 to 134, at different visits. The changes sometimes followed slight exercise, sometimes occurred spontaneously. The impulse of the heart was very diffused; it was decidedly increased in power, and had the heaving character of hypertrophy. The sound of the heart was nearly normal, but on three or four occasions a faint systolic bellows-sound was heard over the base of the heart and along the course of the aorta. When heard, the bruit was very faint; but in by far the larger number of examinations it was impossible to detect any trace of it. Respiration was normal. The pupils were rather disposed to dilatation.

Remedies failed to effect any great improvement. They included strychnine and iron, with Indian hemp at night; and he spent some time at the Convalescent Institution.

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Medical Times and Gazette.

SATURDAY, MARCH 26.

IS MEDICINE A HUMANE PROFESSION?

Our readers will recollect that last week we gave an account of the death of a poor woman at Birkenhead from hæmorrhage. We showed that her unfortunate husband had trudged about during the night, imploring Medical aid, but in vain. Charity requires us to assume that the Medical men applied to had some valid excuse—illness, fatigue, age, previous occupation;—all but one, who replied to the poor wretch that vainly implored help on the ground of his being a stranger, that, "if he were a stranger, he would not come without a guinea in his hand." We affirm that such conduct is tradesmanlike, unprofessional, and barbarous. Wrong as it was, however, it admits of some palliation. It can hardly be called *deliberate*. It was wrung, perhaps, from some poor fellow who had gone to bed sick and soured in body and soul at the hardships of life, and the ingratitude of patients. But the blackest part of the business is, that conduct which makes us blush for human nature is deliberately and officially approved by the British Medical Association.

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The journal which is the Association's mouthpiece actually spoke of this shocking scandal as a sign that the Profession at Birkenhead is in a healthy state! It ridicules the idea that Doctors would not attend if paid; and by direct inference applauds them for staying in their warm beds and letting a woman die rather than run a risk of not being paid! It claims this abominable scandal as a kind of moral reformation, and lauds itself as the apostle of inhumanity. "The principles," it says, "so often laid down in this JOURNAL touching gratuitous Medical services are at last beginning to be actually brought into play in the Profession"! It further lays down this kind of doctrine: that, because a tradesman who deals in brandy would refuse to rise in the middle of the night, and part with a bottle without payment—a thing certainly not true of all brandy merchants—therefore we are justified in refusing to save a life, unless we have a "guinea in hand" (!)

There is just one loophole with regard to this cold-blooded and degrading teaching of the British Medical Association. We may be wrong in taking it literally. It may be irony, only so clumsily worded as to look like earnest. We would gladly confess ourselves as stupid as Queen Anne's ministry who pilloried Defoe for an irony they could not comprehend, could we hope thereby to save the credit of the British Medical Association. But since the thing appears to be meant in earnest, and since there may lurk somewhere some practitioners who, exasperated by the ingratitude of patients, may think themselves justified in acting upon this teaching, or since there may possibly be some few so destitute of all education and gentlemanly feeling as to accept it without loathing, let us argue the matter gravely, and see what kind of conduct is demanded of us as Professional men. We would really hope that the time may not come in our day that a man, because a "stranger" in a town, shall be treated as if he had fallen amongst cannibals; or that we shall grow, under the teaching of the British Medical Association, into a kind of British Medical brigand, ready to shout "Your money down, or your wife's life," to any poor wretch who may implore us, for God's sake, to come and help a poor, innocent woman in her hour of greatest need.

We will not insult our readers by quoting any precept of Christianity, or any of those rules and motives which generally go under the name "religious." Let us wait and see whether the other side can attempt to sanctify the selfishness which they preach.

But there may be a hazy notion afloat that the *idea* of a profession is Christian in its origin; that it involves something superhumanly virtuous and self-denying; and that, good as it may be in theory, it presupposes that kind of excellence which nobody can reach, and which passes under the name of Christian perfection.

Quite the contrary. The notion of the *profession*, as distinguished from *trade*, grew out of the civilisation and refinement of the ancient heathens. It is not a quasi-religious dogma, such as "Love your enemies," etc., but one of the necessary consequences of the existence of an educated and refined class, which, on the one hand, shrinks instinctively from the mean and mercenary, and, on the other, sees and defines acutely the limits of every kind of duty. We claim only what was laid down by Pagans. "What are the callings that become a gentleman?" says Cicero. 'Certainly not those which incur public odium, as do those of tax-farmers and usurers, nor yet the occupation of workmen who are paid for labour and not for skill, nor yet retail trade, with the fawning and insincerity it too often produces. But those professions that are founded upon scientific principles, and conducive to public utility, such as MEDICINE, architecture, and the teaching of philosophy, these are honourable. Amongst the duties of mankind, generosity is one; but it is infinitely more worthy a virtuous man to assist the needy by his talents than by his purse. Mere money giving is inglorious by comparison. *As for those who employ their skill, industry, and labour in acts of beneficence and generosity, every man they serve is a new accession of assistance to enable them to serve others. The practice of doing good renders them more ready and dextrous in diffusing the acts of their beneficence.* The benefits that we confer, not by our purse, but by our talents, redound to the profit of the whole state, as well as to that of the particular persons obliged. Further, no man ought to be too rigorous in demanding, and in all his business ought to consult the convenience of his neighbour, giving up many things he might in strictness insist upon.'

These were the "Professional" notions, these the ideas of "gratuitous service," on the part of a heathen, and anything less is abhorrent—not to Christianity, but even to Pagan civilisation and morality.

But it will be asked, Do you assert that every Medical man ought to give his services to all comers indiscriminately? No more than we say a Medical man is bound to be a fool. A little knowledge of the world and a little humanity would keep most men from throwing away their services on those who do not need them on the one hand, and from allowing a woman to perish for want of help on the other.

Again, we may be asked, do you mean to assert that Medical men are legally bound to get up in the night and go to any poor wretch that may be bleeding to death? Certainly not. There can be no legal obligation whatever in any such case. We might as well ask if men are legally bound to wash their teeth, or put on clean linen, or speak good grammar. The constraint, as Dr. Macculloch well expressed it, is moral and social. When we refuse unpaid services which may save life on an emergency, we violate the first rule of morality; and when we excuse ourselves, by averring that the butcher would not give an unpaid-for joint of meat, we degrade ourselves socially, by implying that life, the subject of our Profession, is of no higher mark than goods which are the object of barter, and that we have no higher or nobler way of dealing with it than the butcher has with his meat.

But we must warn those who talk of legal obligations that they venture on dangerous ground. Two can play at that game. Where is the "obligation" which hinders Poor-law guardians from making the hardest bargain?—from advertising the Poor-law Office year after year, and putting it up at a Dutch auction to the lowest bidder? What is the aim of all the self-denying and laborious efforts of Mr. Griffin? If we are tradesmen, who let women die because we won't sell our skill without ready money, why should we not be treated as such? With what face can we besiege Parliament for increased Poor-law stipends, more generous allowances, protection from unworthy competition, and retiring pensions? Is it not that we appeal to their moral sense, and show them that we are a *Profession*, and a *humane* one, and that we do our work ungrudgingly, whether we receive much for it or little? Besides, is it likely that society will tolerate us as a privileged body if we band ourselves into a kind of trades' union, and *strike* for wages? Depend on it that on the day we are reckoned as mercenary churls, we shall find "the educated, humane, and conscientious" pharmaceutist ready to take our place.

If we could condescend to argue from the ground of advantage, we could show that few things pay like a reputation for humanity. Of all the titles which are given us in society, there is one in common use which speaks volumes for us. It shows that most people think us humane, unselfish, and not prone to put our own interest in the foreground. You often hear a man say, "I must consult my *Medical friend*." But, gracious heavens! would any man in his senses make a *friend* of one who would refuse to save a fellow-creature's life unless paid beforehand? Besides, we may tell our younger readers, if they do not know it already, that half the business and more than half the emolument they may look for will be gained by their humanity rather than their skill. There may be a few men, of colossal genius, who must be consulted in emergencies, and who can afford to be brutes. But for most

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of us it is not the heroic operation, nor the brilliant diagnosis, that will make our fortunes. It is the common infirmities, the wretchednesses which arise out of everyday life, and quite as often from mental trouble as from bodily. It is the incurable, lingering, hopeless illnesses, where the wan sufferer looks into his *Medical friend's* face—not for a cure, for that cannot be had; but for sympathy, for a cheering word, for signs of that humanity which prompts a man to try to assuage pain that he knows he cannot remove.

We can but hope that the *British Medical Journal* will have the manliness to retract sentiments so abominable, into which it was, perhaps, led by zeal in the not unnecessary task of rebuking that indiscriminate advice-giving which only robs ourselves, and injures the recipients. As for the Association, the members must recollect that they stand self-convicted before the whole civilised world, until they shall have disavowed the voice of their accredited organ. There is one rhetorical trick which is common in that journal, which is doubtless effective enough with a certain class of readers. Being the first accomplishment of spiteful children, and the favourite weapon of vixenish women, it is remarkably easy in itself, and it is impossible of refutation. It is the trick of giving nicknames. The word *Tartufe* is applied freely enough to those who presume to differ from its policy. But we suspect that no writer of old comedy, nor of modern sensation novels, could possibly feign an organised hypocrisy so monstrous, so abhorrent to humanity—a set of conspirators so fit to be put out of the pale of society, and so odious to God and man, as the Medical Profession would be, if, with science and humanity on its lips, and with such addresses ringing in its ears as those of Walshe and Symonds, and their fellow-orators, at the annual meetings of the British Medical Association, it could tolerate the doctrine that humanity is a money speculation, and that we would let women lose their lives rather than that we should lose our fees.

THE WEEK.

MILLETT *v.* EDMONDS.

The case of Millett *v.* Edmonds, of which an abstract appears in our Legal Intelligence, affords an instance of the dangerous tendency of certain doctrines with regard to the prevalence of secret poisoning, on which we have several times had occasion to remark. We do not hold that secret poisoning is a crime of common occurrence amongst the population of this country, and because we regard with horror the possibility of an opposite belief taking hold of the public mind, we deprecate the unfounded assertions of Medical alarmists as to its frequency. We might urge another point, that such statements tend to increase the class of crimes in question by leading ill-disposed persons to the belief that they may be committed with impunity. We congratulate the defendant, Dr. Richard Oke Millett, on the complete refutation of the accusations brought against him which this trial has established. This gentleman had the misfortune to lose several relatives suddenly, and being on bad terms with his brother-in-law, the defendant, the latter himself a Surgeon, assumed that Dr. Millett was a wholesale poisoner. Dr. Millett's brother, who was the subject of chronic hydrocephalus, happening to die of apoplexy, a charge was brought against Dr. Millett by Mr. Edmonds of having taken his life. Dr. Millett was subjected to all the obloquy of a public inquiry; and even after Dr. Taylor's report had completely exposed the baseless character of the charge, Mr. Edmonds wrote an anonymous letter to the *Western Daily Mercury*, which was intended to throw doubt upon Dr. Taylor's report and to support the original accusation. Under these circumstances, we thoroughly acquiesce in the justice of the verdict. At the trial, the chemical evidence of Dr. Taylor was supported by Dr. Albert Bernays, of St. Thomas's, and the Medical portion of his evidence by Drs. Barlow and Wilks, of Guy's Hospital. The Judge, Mr. Baron Bramwell, in his summing up, said that "Dr. Millett might leave this court satisfied that everybody who could pronounce an acquittal upon him had done so." We are certain that outside the court public and Professional opinion will fully acquit him also.

PARLIAMENTARY.

On Thursday, March 17, in the House of Commons,

Mr. Bazley asked the Secretary for India why Medical officers of Her Majesty's British and Indian armies were deprived of the substantive pay of their rank in India; why Medical officers of the Indian army, of ten and fifteen years' service, ranking with captains, received when on sick furlough merely the pay of a subaltern; and when the 900 Medical officers of the late Company's army, whose services were transferred to the Crown in 1857, would be informed of what their future prospects are to be as regards rank, pay, and pension.

Sir C. Wood replied that Medical officers in India were paid upon a totally different scale from Medical officers in this country. The whole subject had been under the consideration of himself and Council, and not long ago he stated that they were prepared with a general plan which would put things on a more satisfactory footing. Some further steps, however, required to be taken before that plan could be carried out.

Colonel Greville asked the Chief Secretary for Ireland if he had received the resolutions passed by the grand juries of the different counties affected by the changes proposed in the district lunatic asylums; and, if so, whether it was the intention of the Government to persevere in the contemplated changes.

Sir R. Peel replied that no resolutions passed by the grand juries had yet been received by him. When he had received them he would communicate with the hon. and gallant gentleman.

The debate on the Government Annuities Bill was resumed.

Sir M. Farquhar moved that the Bill be committed to a select committee. He complained of this measure coming by surprise upon the societies whose interests were affected by it, and of the slur cast upon insurance offices and other societies in the speech of the Chancellor of the Exchequer on the second reading of the Bill, and contended that they were entitled to be heard in their defence. He discussed a variety of statements contained in the speech, and, suggesting that the scheme might possibly not succeed, observed that it would be unjust to throw the loss upon the taxation of the country. It would be better, in his opinion, to amend the existing law so as to remedy abuses. At all events, the subject should be further investigated.

The amendment was seconded by Mr. Horsfall.

After a long debate, the Chancellor of the Exchequer said, if it were meant that the select committee was merely to consider the clauses of the Bill, he was prepared, on the part of the Government, to consent to the amendment.

Ultimately, however, the debate was adjourned.

On Friday, March 19, in the House of Lords, the House went into Committee on the Malt for Cattle Bill.

An amendment to clause 1, proposed by Lord Berners, was negatived after a short discussion, and, the various clauses having been agreed to, a new clause was added, and the bill ordered to be reported to the House.

Their Lordships adjourned until April 5.

In the House of Commons the adjourned debate on the Government Annuities Bill was fixed for April 11.

Mr. Bruce moved that the Select Committee to which the Cattle Importation Bill and Cattle Diseases Prevention Bill are referred should consist of seventeen members:—Lord Naas, Mr. Caird, Mr. Leader, Mr. Miller, Mr. Leslie, Mr. Hodgkinson, Mr. Hunt, Mr. Thompson, Colonel Bartelot, Mr. Holland, Mr. Bentinck, Mr. Cox, Sir W. Miles, Mr. Alderman Salomons, Mr. A. Egerton, Sir T. Burke, and Mr. Bruce.

Mr. Ferrand complained that no members representing manufacturing districts were nominated upon the committee, and, with a view to supply the omission, moved that the committee consist of nineteen members.

Mr. Bruce assented to the motion, and undertook to confer with the hon. member as to the additional names to be placed upon the committee.

The motion was then agreed to.

The House adjourned until April 4.

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THE LOCK HOSPITAL FESTIVAL.

THE account which has lately appeared in the daily papers of the 118th anniversary festival of the Lock Hospital has a far higher claim on public and Professional attention than most reports of charity dinners. It may be safely asserted that no topic of European or home policy discussed by the Prime Minister at a civic feast has in reality a closer or more important relation to the progress and stability of the English nation than that on which H.R.H. the Duke of Cambridge, the Duke of Somerset, Earl de Grey and Ripon, Adjutant-General Scarlett, and Sir John Pakington spoke in Willis's Rooms, on Wednesday, the 16th of March. The meeting elicited an open avowal from the heads of the public services of the magnitude of an evil which has until lately been ignored by Government and Parliament, and a pledge from them to institute and support some comprehensive measure for its check. We abstract the speech of the First Lord of the Admiralty, the Duke of Somerset. In returning thanks for the navy, he said:—

"Great improvements had taken place during the last fifteen years in drainage, in ventilation, and in the regulation of temperature; but there still remained one great source of disease which had not been successfully attacked. He held it to be a great error that Christianity was opposed to the alleviation of suffering; and speaking with the information which, in his official capacity, he was obliged to possess, he knew that there was nothing officers dreaded so much as having their crews paid off in great towns like Plymouth or Portsmouth. We boasted of an advancing civilisation, but a system under which 300 or 400 men out of every thousand were laid up with sickness in our home ports, while abroad the proportion would be only 70 or 80, must be based upon a false, a prudish, and prejudiced view of the circumstances. Practical men had to deal with practical evils, and with a little energy these might be greatly alleviated. One of our own Medical officers had been shocked to see the state to which the Sandwich Islanders were reduced by disease carried there in British vessels; while at Tahiti, where the French had enforced sanitary regulations, the island was in a far healthier state. Surely we were not to go about spreading Christianity, and at the same time disease, among unfortunate and half-civilised nations. Looking at the matter in a financial point of view, a young lad who went into the navy at 16 cost £65 to train. At 18 or 19, in all the vigour of youth, he contracted disease, his services were lost to the country for weeks, and frequently he was discharged unfit for service, entailing a proportionate loss upon the country. Marines in the same way, who came back from abroad drilled into excellent soldiers, often fell into a like unfortunate condition; and the country really had no notion of the extent to which its interests were thus damaged. The noble Duke, whose speech was throughout warmly applauded, said the whole subject was hidden, perhaps necessarily, from public view; but those who knew the facts were aware how imperative it was to discover a remedy and to apply it."

Sir J. Scarlett and H.R.H. the Commander-in-Chief made similar statements in reference to the army; and the Secretary of State for War pledged the Government to a serious consideration of the matter. Sir John Pakington also expressed himself strongly in favour of legislative interference. Thus supported, we believe that the measure which it is the intention of Government to introduce will meet with the general assent of the nation. Prevention of disease and suffering, in whatever forms they present, is a paramount duty, and cannot be in opposition either to the dictates of religion or morality.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE VIII.—FEBRUARY 18.

THE variations in the form and proportions of the human body, under the different circumstances which have given rise to the various races of man upon the earth, is an interesting and fertile subject for study, but one which has hitherto been cultivated to a very small extent with anything like the precision which its importance demands. All human beings naturally assume the erect posture, and all agree in certain great and fundamental characters in respect to the proportions of the body; thus, the legs are always longer than the arms, the tips of the fingers do not reach the knees in the upright position, the proximal segments of the limbs are the largest, the foot is longer than the hand, the hallux never greatly shorter than the second toe, and can never be greatly abducted or opposed. There are, however, both in individuals and races, considerable minor variations of proportion, the chief of which will now come under consideration.

From a series of measurements of skeletons of Europeans and negroes, published by Dr. Humphry, it appears that the average height of the negro is less than that of the European, the arms are proportionally longer, particularly the forearm and hand; and in the lower extremity, while the femur retains nearly the same relative length as in the European, the tibia and foot are considerably increased. In these deviations from the European standard, the Australian and other low races agree with the negro; and it will be observed they recall some of the peculiarities of the proportions of the fœtus, and will be met with, only in an infinitely more marked degree, in some of the anthropoid mammalia. There is no real evidence to show that the hallux is differently constructed, or more moveable, among the lower than in the higher races of men, though in the latter the practice of wearing hard shoes rarely allows it to become developed. The same may be said of the alleged flatness of foot and increased length of heel of the negro races. The last, though constantly insisted on, is not borne out by anatomical examination, and the idea has probably originated in the altered contour of the back of the leg, dependent on a defective development of the muscles and tendons of the calf.

The modifications of the colour of the skin in different races are well known. We speak of white or black people, but in reality they are all shades of brown, darker or lighter,—a true black skin, according to Professor Huxley's observations, scarcely exists. In the character, as well as the colour, of the hair mankind vary much. The transverse section of the hairs of certain races is flattened, in others it is oval, and, again, in others nearly circular. It is asserted that the first form is characteristic of the Negro, the second of the Aryan, the third of the Mongolian races. In some hair of the first form, the long axis of the diameter gradually changes its position in the length of the hair, causing a crisp curl or spiral twist; this and other peculiarities of the hair are found in widely-separated groups. In connection with the cutaneous system may be mentioned the great accumulations of fat in particular parts of some races, as on the buttocks of the Bosjesmen, more especially the females; and also the great development of the nymphæ in some negro tribes.

The number of the cervical vertebræ in the human skeleton appears to be constant. A variation in the number of the dorsal vertebræ is not unfrequent, but it is usually more apparent than real, being caused by the development of a moveable rib on the first lumbar, thus increasing the former series at the expense of the latter. A truly additional lumbar vertebræ has occasionally been met with. An increase of the number of the sacral vertebræ from five to six is not very uncommon. This may be occasioned by either one of three ways: the interposition of an additional bone into the series, or the annexation by alteration of its characters, and anchylosis of the last lumbar or first coccygeal vertebra. The modification of the last lumbar vertebra so as to bear more or less resemblance to part of the sacrum appears to be of rather frequent occurrence among the lower races, as it may be observed in the skeleton of the Bosjes woman and female Australian in the College Museum, and in a male Australian in the Middlesex Hospital Museum.

The pelvis undergoes modifications of a very interesting nature in different races of men—modifications, however, which chiefly affect the male sex. It may be stated generally that the pelvis of the negro is in all its dimensions proportionally less than is that of the European, and in the Aus-

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tralian this diminution is carried further. While the form and dimensions of the lower outlet of the pelvis is pretty nearly the same in the females of all races, this outlet is greatly diminished in breadth in the male Australian, so that among these people the pelvis of the two sexes present a most remarkable contrast. In the African negro the difference is not so marked. There appears also in the lower races to be a certain tendency towards the narrowing of the transverse as compared with the antero-posterior diameter of the brim of the pelvis. The female Bosjesman's skeleton in the College Museum presents the great peculiarity of an antero-posterior actually greater than the transverse diameter.

The form of the skull undergoes great modifications in different races. When the cranium is elongated and narrow, so that the transverse diameter is less than seven-tenths of the antero-posterior diameter, it is called "oblong," and the race or individual to which it belonged is "dolicho-cephalic." When the transverse diameter is from seven-tenths to eight-tenths of the length, the cranium is "oval." When the transverse diameter is more than eight-tenths, it is "round," or "brachy-cephalic." As a general rule, though, as is well known, the exceptions are numerous; the oblong skull is met with best developed partly among the Scandinavian races and partly among the West African negroes. The oval skull is characteristic of the so-called Aryan races, including the inhabitants of Central Europe, Persia, and the higher races of Hindoostan. The round skull is found among the typical Mongolians, occupying the central parts of Asia, and the aborigines of America. In the long-headed races the cranium is frequently raised in the middle in a ridge, constituting the so-called boat-shaped, or "scaphoidal" skull. Among the Greenlanders it is pyramidal; and there is yet another form which may be described as the "depressed" skull, characterised by its considerable length and breadth, great vertical depression, and large development of the infra-orbital ridges. Of this form there are some very good examples in the Museum from natives of Port Adelaide, South Australia. The internal capacity of the human skull varies greatly, ranging in normal healthy adults from 50 to 110 cubic inches. The variation between the proportion of the greatest internal cerebral length to the length of the basi-cranial axis (from the hinder part of the basi-occipital bone to the junction of the presphenoid with the ethmoid) is also great, the proportion in the higher races of the former to the latter measurement being as 270 to 100, while among the lower races it is but as 230 to 100, indicating a smaller development of the cerebral chamber as compared to the base of the skull and face.

FROM ABROAD—PARACENTESIS THORACIS IN PLEURISY—PROSECUTION FOR BETRAYAL OF PROFESSIONAL CONFIDENCE—THE WATER-MATTRESS—THERAPEUTICAL ACTION OF OXYGEN.

An interesting discussion has taken place at the "Societé Médicale des Hôpitaux" in relation to the practice of paracentesis thoracis in acute pleurisy. M. Archambault related the case of a man, aged 34, of habitual good health, and who, while under treatment for an acute pleurisy with effusion, which remained somewhat stationary, but seemed of no great urgency, suddenly died. At the autopsy, from a quart to three pints of fluid were found in the right pleura, compressing the lung against the spinal column, but the left lung was found normal, and all the other organs of the body were quite healthy. M. Archambault is inclined to think that paracentesis might have saved this man, and ought to have been performed. He had been guided in the matter by the report of a very important committee which, in 1854, had declared that the operation was only indicated when asphyxia seemed imminent, or great displacement of viscera, especially of the heart, took place, neither of which circumstances existed in the present case. He thinks that the rule for operating should be somewhat enlarged; but how it could be applied in this case is not evident, as there was no urgency in the symptoms, and the amount of fluid was not very excessive or on the increase. M. Chauffard could not agree that because no lesion capable of explaining death was discovered, that paracentesis would have saved this patient. Other instances are on record in which sudden death has occurred in pleurisy in which effusion, dyspnœa, etc., have been very moderate. If we compare the number of deaths, relapses, and purulent transformations becoming, sooner or later, fatal which supervene on paracentesis with the few cases of death arising from its non-performance, we should probably resort to it less often even than we do now. It is not to be denied that a large effusion may give rise to sudden death; but should we operate in the moderate cases in which the supra-spinal fossa still continues sonorous? Without denying its occasional advantages, M. Chauffard feels convinced that the operation is too frequently performed. During ten years' practice in a Hospital where pleurisy was frequent, and in a climate favourable to the affection, he had met with many cases in which the effusion was enormous, and yet there were no sudden deaths, but rapid recoveries, although paracentesis was never resorted to. M. Guérard pointed out that, while on the one hand sudden death occasionally occurred without any assignable cause, on the other, large effusions, with even visceral displacements, may be cured without puncture. M. Herard admitted himself an advocate of paracentesis, as sudden death is far more common in pleurisy with than without effusion. In some cases the effusion increases so rapidly that danger can only be avoided by an operation. This is far from being surrounded with the perils attributed to it; and in the numerous cases in which he had practised it, M. Herard had met with no accident, but frequent and prompt success. M. Bourdon stated that M. Vigla, formerly a partisan of the operation, had given it up of late, except in very urgent cases, as he had several times observed a purulent transformation ensue. M. Moutard-Martin believed that this transformation would have ensued even if the operation had not been performed. Paracentesis may not, perhaps, abridge the course of pleurisy with strong plastic excretion, but when the serous effusion is predominant and fever is intense it causes the symptoms to yield in a few days. M. Behier also spoke in favour of the operation, and thinks that for the explanation of these sudden deaths the heart should be more carefully examined than is usual. M. Woillez dwelt upon the uncertainty of the indications for the operation usually employed, as shown by the fact that frequently percussion exhibits a stationary condition of the effusion, although this has really gradually increased or diminished, while the ill effects of the displacement of the heart have been much exaggerated. The only exact means of ascertaining the amount of effusion is exact measurement of the chest, the mode of making which, under the title *cyrtometrie*, M. Woillez describes at some length. Whenever from the fifteenth to the twentieth day thoracic amplification becomes marked, the operation is indicated, secondary pleurisies being left to the twenty-fifth or thirtieth day; while whenever there is any diminution of the capacity of the thorax observed, whatever the other indications may be, the operation should be abstained from. In more than 100 cases of pleurisy, M. Woillez has seen occasion to operate in but seven; and three of these were cases of urgency. By mensuration, all danger of that excessive expansion of the chest, which itself becomes a cause of rapid asphyxia and death, may be anticipated. M. Laillier declared that M. Woillez' instrument was one of difficult and tedious application, and liable, when badly applied, to furnish no better indications than percussion and auscultation.

A case has recently occurred in Paris which shows that the betrayal of professional confidence, which with us can only be met with the reprobation which its perpetration would call down upon the head of the offender, constitutes in France a very serious breach of law. A doctor of medicine was brought on the 11th March before the *Tribunal Correctionnel*, charged with having revealed a secret disease of one of his

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patients, and by the judgment of the Court he was condemned to a year's imprisonment and a fine of 500 francs, with the expenses. Moreover, at the expiration of his sentence, he is to remain for five years under the *surveillance* of the police; and as by the divulgation of the disease of the patient he has caused prejudice to the interests of the plaintiff, he is further condemned to pay the sum of 1000 francs damages, or undergo an additional year's imprisonment.

M. Demarquay has been for some time since engaged in investigating the merits of different beds in the prevention of eschars and bed-sores, and came to the conclusion that of all hitherto devised that of Arnott (or Asmolt and Arnolt, as the name is spelt in the article we quote from) bears the palm of superiority. But this is an expensive article, and has several inconveniences, and, after much time employed upon it, M. Demarquay has invented a *water mattress*, which he regards as an effectual and cheap substitute. This simple apparatus, carefully constructed by Galante, the celebrated Paris caoutchouc instrument manufacturer, resembles a small ordinary mattress, which is filled with tepid water, and placed in a bed. At the end of three months the water is found to have retained its temperature, and to have undergone no alteration. M. Trousseau speaks highly of the advantages attendant upon this contrivance.

Having given an account of their experiments with oxygen on man and animals, MM. Demarquay and Leconte next proceed to consider its therapeutical applications. The sanguine expectations raised with respect to what was termed pneumatic medicine at the end of the last century have not been realised, in part in consequence of the contraindications to the use of oxygen and other gases not having been borne sufficiently in mind. These contraindications are,—the febrile condition, except under certain diathesic conditions, as croup; deep-seated inflammatory action and visceral lesions; diseases of the heart and large vessels; neuralgia unconnected with anæmia; and a disposition to hæmorrhage. On the other hand, oxygen is especially indicated for anæmia or chloro-anæmia connected with Surgical affections, for raising the strength, and for combating certain diatheses, the depressing action of which is well known, as diphtheritis, syphilis, diabetes, etc. In these conditions, under the influence of oxygen, in the course of a few days, if the age and general condition still allow of it, the strength is recruited, and the appetite returns with such intensity that the patient demands food even in the night. The lips regain their colour, and a greater vitality manifests itself, and during these appearances of reparation, much of the nervous disturbance ceases. At this period, however, the condition of the internal organs requires to be well ascertained, for wounds now assume a greater functional activity. In a child the subject of croup, a large blister covered with diphtheritic deposit cleaned under the influence of oxygen, but at the end of a week this had to be left off, as the blister began to assume the signs of ordinary active inflammation. The action of the oxygen is prompt, especially in young subjects. It has never been administered for more than from thirty to forty days in succession, and ordinarily not more than from fifteen to twenty, when it has at all events been suspended for a time. Of course, it is not always curative, as when administered in cancer or incurable chronic disease, but at least it never does any harm.

THE PROPOSED LEGISLATION FOR CHEMISTS AND DRUGGISTS.—Although it has not been officially reported, it is pretty generally known that the Branch Medical Council for England, having deliberated on the Proposed Amended Medical Act, have come to the conclusion "that it is not expedient at the present time to engage in fresh legislation." As far as the proposed clauses in relation to chemists and druggists extend, we think that the Branch Council have taken the right view of the case. We are by no means, however, prepared to state that the clauses of the Medical Act in reference to registration and titles require no revision.

REVIEWS.

Atlas d'Ophthalmoscopie, representant l'Etat Normal et les Modifications Pathologiques du Fond de l'Œil Visibles à l'Ophthalmoscope. Par le Docteur RICHARD LIEBREICH. Baillière, Paris and London.

THE discovery of the ophthalmoscope has indeed been of incalculable value in the advancement of Ophthalmic Surgery, as all must admit who have watched the great progress made by this department of the Profession within the last twelve years. It has revealed to us diseases of the inner tunics of the eye, which were before shrouded in impenetrable obscurity, and has rendered them as clear and apparent as if they were situated in the cornea or conjunctiva. The use of this instrument is, in fact, as essential and important in the treatment of eye diseases, as auscultation in affections of the chest. It is, therefore, of great consequence that the Profession at large should be acquainted with it, and should be conversant with the ophthalmoscopic appearances of, at least, the more common affections of the internal eye. But the ophthalmoscope is also of great value and assistance to the physiologist and pathologist. The eye is a microcosm in which many of the most interesting physiological and pathological phenomena may be watched with greater accuracy and certainty than in any other organ of the body. Step by step we may trace the origin, the progress, the termination of a disease. For instance, in cases of effusion into the retina or choroid, we may watch every change, however slight, in the different stages of the affection: the hyperæmia, the effusion, the various metamorphoses which the pathological products undergo, until they are, perhaps, finally, completely absorbed, leaving behind them no trace of their existence, except some slight changes in the epithelium, or some minute cicatrix. Again, the ophthalmoscope not seldom affords us the first hint of the existence of an affection of some other organ. The first suspicion of Bright's disease is frequently excited by certain appearances in the retina: atrophy, or inflammation of the optic nerve, often first calls our attention to the presence of some cerebral affection; embolism of the central artery of the retina may lead us to examine the heart, and detect some, hitherto unsuspected, lesion of this organ. This being so, it is to be greatly regretted that this valuable instrument is still so little used in England, except by men who make diseases of the eye almost a special study. But whilst regretting this, we must also remember that many difficulties lie in the way of its general employment; for ophthalmoscopy is a subject of which it is impossible to acquire even an elementary knowledge without devoting much time and patience to its study, and without the careful and repeated examination of a great number of cases. But few men in active practice can devote much time to the study of one branch of the Profession. It has, therefore, often been a matter of surprise to us that lectures on the use of the ophthalmoscope (with practical demonstrations) have not been more generally organised in our English Medical schools. A student would thus learn more, under a competent teacher, in the course of a few months, than he could acquire in years, if dependent upon his own unaided resources.

Much may, however, be also learnt from the careful study of really good ophthalmoscopic plates, and for this reason Dr. Liebreich's Atlas will prove of great value and assistance, not only to the Profession at large, but also to the ophthalmic Surgeon, for his plates are, without exception, the best which have been published. They not only furnish us with a truthful and life-like representation of the ophthalmoscopic appearances presented by the various affections of the internal eye, but they are executed throughout in the most finished and artistic manner. They are not mere sketches, hurriedly drawn and badly coloured, but are in reality a series of admirable portraits, the minutest details of which are rendered with wonderful accuracy and care. By employing a very considerable magnifying power, he has been enabled to perceive and depict minutiæ which would almost have escaped observation with the ophthalmoscopes generally in use.

He has made an excellent and judicious selection of cases for illustration, for they either represent well-marked types of the different diseases, or some rare and interesting peculiarity. Some may, indeed, wish that more of these exceptional cases had been illustrated, but it must be remembered that this would have greatly increased the expense of the work, without affording any corresponding advantage.

The Atlas consists of twelve large plates, containing in all

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fifty-seven illustrations. The explanatory letter-press is in German and French. Although short and concise, it will be found to contain much interesting and valuable information, and to be pregnant with important ideas, which open up a vast field of thought and inquiry—a field promising a rich and abundant harvest to the earnest and zealous labourer. This is particularly the case in those affections of the eye which depend upon diseases of other organs—*e.g.*, the brain, the heart, the kidney.

Our space will not, unfortunately, permit us to describe the illustrations in detail—indeed, no mere description could do justice to them; we must, therefore, confine ourselves to calling the attention of our readers to some of the most important plates.

It will be well for the student to make himself thoroughly conversant with the varieties in the shape, colour, and size of the optic nerve entrance, and in the colour and pigmentation of the fundus which are met with in the healthy eye. These are well illustrated in Plate II. Nothing so frequently misleads the beginner as these physiological peculiarities, which he is but too apt to consider due to same pathological cause.

Plates III. and IV. furnish numerous examples of the more important appearances occurring in the various forms and stages of staphyloma posticum (sclerotico-choroiditis posterior) and the different kinds of inflammation of the choroid.

Plate V. gives two interesting and instructive illustrations of a case of choroido-retinitis. The first was taken within a few weeks of the outbreak of the disease, and shows clearly the effusion into the deeper layers of the retina, with all its concomitant symptoms, the choroid being at that time apparently but little affected. The second figure represents the condition of the eye about a year later, when the appearance of the fundus is entirely altered. The retinal effusion has completely disappeared, but the changes in the choroid are now most marked and apparent. This case also illustrates well the different influences exerted upon the sight by retinal and choroidal affections. We often find that great and very marked changes in the choroid—as, for instance, in cases of disseminated choroiditis—are accompanied by but little impairment of vision; whereas apparently slight changes in the retina, particularly in the region of the macula lutea, produce often very considerable amblyopia.

In Plate VI. two cases of retinitis pigmentosa are depicted. The characteristic spider-like, black masses which are strewn about the fundus in various directions, but chiefly following the course of the retinal vessels, are admirably portrayed. In both, the optic nerve is atrophied, this being a frequent complication in elderly persons. Dr. Liebreich has made some valuable and interesting researches into this affection. It generally commences in infancy, but often remains undiscovered—unsuspected for many years. The external appearance of the eye is perfectly healthy. There is no pain or redness, and the patient at first only complains that his sight deteriorates towards evening. In the daytime, and in a bright artificial light, he may still, however, be able to see well. The field of vision is, at the same time, found to be more or less contracted. These symptoms of night-blindness and contraction of the visual field gradually increase, until the latter may be so excessive that the patient can see nothing but what lies in the optic axis, being quite unable to guide himself, as all around him is shrouded in obscurity. In the optic axis, however, his sight may be still so perfect that he can read the very finest print. After the age of 30-40 the disease generally ends in total blindness. Dr. Liebreich has found that nearly one-half of the persons suffering from retinitis pigmentosa were the offspring of marriages of consanguinity, and also that it not unfrequently coexists with idiocy and deaf-mutism.

But perhaps the most interesting group of cases in the whole work is that of the diseases of the retina, which are admirably illustrated in Plates VIII., IX., and X. We would call special attention to these affections, as an acquaintance with them is of importance, not only to the ophthalmologist, but also to the Physician. Here the domains of the two merge into each other: here it is as necessary that the oculist should likewise be a thoroughly educated Physician, as that the latter should be conversant with diseases of the eye and the use of the ophthalmoscope. Many of these affections depend upon diseases of other organs, being not unfrequently harbingers of the graver lesion, and first exciting our suspicion of its existence. In Plate VIII. we find, for instance, various cases of hæmorrhage into the retina occurring together with suppression of the catamenia, and together with arterio-sclerosis and hypertrophy of the left ventricle. Also a case of embolism of the central artery of the retina in a patient affected with insufficiency of the aortic valves and consecutive hypertrophy and dilatation of the left ventricle.

Plate IX. gives two illustrations (Figs. 1 and 2) of the degeneration of the retina in Bright's disease. We consider these as the gems of the work, not only on account of their truthfulness and accuracy, but also on account of their admirable colouring and finish. We particularly advise the student carefully to compare these illustrations with those of syphilitic retinitis (Plate X., Figs. 1, 2), and inflammation of the optic nerve (Plate VIII., Fig. 6, and Plate XI., Figs. 6—9), and to note the characteristic symptoms of each affection, for the peculiarities are so marked and typical, that the differential diagnosis is not difficult. Plate X. also contains an illustration (Fig. 3) of a most peculiar form of retinitis occurring in leucocythemia. Dr. Liebreich was the first, as far as we are aware, who discovered it, and has seen six cases, in all of which the ophthalmoscopic symptoms were closely allied, and perfectly characteristic. The papilla of the optic nerve is very pale, and the retina in its vicinity somewhat opaque and clouded, this opacity having a striped appearance. In the region of the yellow spot are seen a number of pale, irregular, minute particles. The retinal and choroidal vessels are pale, and the retinal veins, though dilated and tortuous, appear of a faint rose colour. The hæmorrhagic extravasations into the retina assume the same tint. There are also peculiar white, glistening spots, which correspond closely in form and colour to those met with in Bright's disease, but they lie more to the periphery of the fundus. They depend, as do those in Bright's disease, upon sclerosis of the nerve fibres of the retina.

Plate XI., Figs. 1—5. Deep glaucomatous excavations of the optic nerve entrance. These examples of glaucomatous cupped optic nerves are most marked and typical, and should be compared with the two illustrations (Figs. 10, 11) of slight excavation met with in atrophy of the optic nerve.

Plate XII. contains illustrations of numerous congenital anomalies—*e.g.*, colobama of the choroid, the optic nerve, etc.

In conclusion, we must congratulate Dr. Liebreich upon the production of so admirable a work, which not only adds greatly to his reputation as an ophthalmologist, but proves him also to be a most excellent and skilled artist.

The Principles and Methods of Medical Observation and Research, for the Use of Advanced Students and Junior Practitioners. By Thomas Laycock, M.D., F.R.S.E., F.R.C.P., etc., Professor of the Practice of Medicine and of Clinical Medicine, and Lecturer on Medical Psychology and Mental Diseases in the University of Edinburgh. Second Edition. 8vo. Pp. 403. Edinburgh.

The great and rapid advance which the science and practice of Medicine has made in the last twenty-five or thirty years has been mainly owing to the ardent and accurate study of pathology in its truest and widest significance. The pure morbid anatomist was too apt to stop short at the lesions discovered when disease had done its worst, to regard the footprints of disease as the disease itself; the true pathologist goes further back, and endeavours to trace out and interpret the nature, course, and causes of the lesions found, and combines morbid anatomy and histology with clinical observation, "so as to establish the relations of the changes which lead to the lesions, and so as to connect the general progress of disease with its symptoms and signs. Calling in the aid of inductive reasoning, he seeks to connect causes and morbid effects, and teaches the practical Physician to direct his weapons for prevention or cure against the former, instead of, or as well as, the latter; as consequences, among others, hygiene has arisen and become a "productive" study, constitutional diatheses and cachexiæ are more and more recognised, and studied as causing and influencing disease, and rational Medicine is daily strengthening its claim to be ranked among the sciences.

Dr. Laycock has been one of the earliest and most able and zealous teachers, by precept and practice, of these improvements. He is one of the first apostles of Public Health, ere "sanitary science" had become fashionable. He has studied and reported on some of the gravest epidemics of our day—cholera, purpura, typhus, and influenza. He has, therefore, special authority and information; and this work, which exhibits both, is one of the most valuable of his productions. In our review of the first edition (*Medical Times and Gazette*, vol. xiii., 1856), we expressed our high opinion of its scientific character and philosophical views, and spoke of it "as calculated to advance the science of Medicine in these

kingdoms, and to elevate its professors in public estimation." It naturally follows that we gladly hail the appearance of this second and much enlarged edition. The author's object is to educate and train the student in the use of the inductive logic, "which is [to him] the greatest essential to success, and which can only be attained, like all other arts, by self-culture, under proper training and guidance." He "has taken up some of the more important principles of observation and induction, and in the familiar language of a lecture, and devoid of the technical phrases and methods of systematic writers (which may be learnt best in Mill's system of logic, and other works), so laid them before the student, that, if zealous in self-culture, he may discipline his own mind to a successful encounter with the exigencies of his Profession." In the space that can be devoted in this Journal to a notice of the book we can best give an idea of its scope and value by enumerating the subjects treated of in the several lectures.

Lecture I. is on the "General Principles of Observation and Inquiry;" the "Nature and Acquisition of Experience in Medicine;" the "Combination of Theory with Experience and Observation;" and gives "Illustrations of the Fallacious Use of Theories."

Lecture II. on the "General Method and Objects of Clinical Study."

Lecture III. on the "Methods of Clinical Examination;" and on "Clinical Observation of General or Constitutional Morbid States."

Lecture IV. on "Prognosis and on the Order of Succession of Morbid Phenomena."

Lecture V. on the "Due Estimate of Treatment, and on the Management of the Case."

Lecture VI. on the "Numerical Method of Research in Medicine," with illustrations of its uses.

Lecture VII. on the "Analogical, Philosophical, or Purely Inductive Method of Research," with practical examples.

All these subjects are handled in a manner worthy of Dr. Laycock's reputation as a deep and accurate thinker, of large and extensive knowledge and learning, with broad and liberal views. The importance of sound and careful training and guidance in these matters cannot be too highly exaggerated; such teaching will preserve men from the dangers of the Scylla and Charybdis of too hasty and credulous a belief in the powers of treatment on the one hand, and of disappointment at and scepticism of its efficacy on the other. We consider the teachings on the "Clinical observation of constitutional morbid states," and "the natural order of diseased condition," as of special value, for, to use expressions applied by the author to the laws of vital periodicity, "they are stated or fully treated of in few, if any, of our Physiological and practical works," and "a knowledge of them is at the foundation of all inductions as to the influence of drugs and treatment."

Lecture VIII. is on "The Naming and Classification of Diseases." "Since," as Dr. Laycock remarks, "it is certain that medicine will advance very rapidly, and new forms of disease be discovered," or diseases hitherto confounded together will be separated and differentiated, it is of the utmost importance that men should be instructed in the principles to be followed, and the errors to be avoided in naming new or newly-distinguished diseases, and the principles and rules here laid down appear to be sound and accurate.

Part II. of the work is entirely new, and consists of "Nosologies and Indexes of Fevers, Constitutional Diseases, Diseases of the Skin, Diseases of the Nervous System, and of Mental Diseases and Defects," "the result of long-continued observation and inquiry." Into a critical examination of these we have neither space nor inclination to enter here. It is impossible, in the present state of our knowledge, to produce anything like a perfect nosology, and we are inclined to regard with a jealous eye anything that looks like offering a new nosology for general use at this time, when efforts have been, and are still being made, and not without considerable success, to gain for Dr. Farr's "Nosology and Nomenclature" an European acceptance. But if we understand Dr. Laycock rightly, he allows that the Registrar-General's nosology is one of the most complete in existence, and that, whatever are its acknowledged defects, it must be used for all public purposes. It is true, however, that nosologies may be formed for and "serve very different purposes;" and new ones, we think, should serve at present as private exercitations of intellect and tests of the increase in extent and accuracy of our knowledge of diseases. Dr. Laycock has found his "Nosologies and Indexes" highly useful to himself, and is justified, therefore, in hoping others may find them so also. We will only remark on them that perhaps they betray a tendency to over-refinement of distinction between different forms of disease; and this has brought upon their author an attack in his own University, where a celebrated Surgeon has publicly charged him with having placed in the hands of his pupils a list of 800, or according to a second and amended statement, of 600 fevers! The exaggeration is so gross that its absurdity deprives the charge of all force. It can only be looked upon as a joke played upon the too-credulous Surgeon by some mischief-loving student; or perhaps it owes its birth to an exaltation of intellect pathognomic of some intermittent febrile condition, which Dr. Laycock may add to his list as the febris arithmetica or numeria. Or is it possible that the Surgeon believed the Physician had invented and let loose upon a suffering world this mass of fevers? There is in his speech a pathetic allusion to "the three fevers" of former days which suggests this idea, but we can hardly suspect any Surgeon of the present day of entertaining such a notion, much less the learned and distinguished gentleman in question. Again, perhaps he thought a speech from a Surgeon at the College of Surgeons would be more *Syme*-trical if containing an attack, no matter what, against a Physician? We, with great diffidence, offer these various explanations, for to us it seems that some explanation is needed—for the speaker's sake. We have only space to add that, while Dr. Laycock modestly offers his book "for the use of advanced students and junior practitioners," we think there are not very many of any age or standing in the Profession who might not derive both pleasure and profit from its perusal.

Brevi Cermi sulla Classificazione e Cura delle Pazzie, con Alcuni Dati Clinico-Statistici, nel R. Manicomio di Torino. Per B. F. Amedeo, Dottore in Medicina e Chirurgia; Assistente al R. Manicomio. Torino. 1863.

This pamphlet contains a report of the operations of the Lunatic Asylum of Turin, for the year 1862. The establishment is capable of accommodating about 500 insane persons; but it has attached to it an adjunct Hospital, at Colligno, a short distance from Turin, on the line to Susa, which receives about 320 others.

These asylums are both under the care of inspecting Physicians, with acting Physicians and assistant Physicians, a consulting Surgeon, etc. The attendants on the females are Sisters of Charity. Altogether the proportion of attendants upon the tranquil patients is about one to eleven or twelve; among the excited, one to seven or eight.

The report contains elaborate tables of the admissions during the year, from different districts of the country, with the proportion calculated upon the population of each district, and the same arranged as to age, sex, occupation, etc. The forms of insanity are classed under the heads of mania, lipemania, monomania, dementia, idiotcy, epilepsy, etc.

The total admissions in the year amounted to 394; the discharges to 208; and the deaths to 203. As, however, we have no statement of the number remaining under treatment at the commencement of the year, it is impossible to calculate the rates of recovery and death. We are, however, told that the cases cured were in the proportion of one-eighth of the men, and one-twenty-fourth of the women. The causes of death are classed under apoplexy, gastro-enteritis, pleuro-pneumony, cerebro-spinitis, etc.

The report concludes with a statement of the treatment pursued; and we observe that, in addition to the Medical treatment, stress is laid upon the necessity of providing recreation for the patients, and especially of occupation; indeed, we are informed that it was mainly in order to afford the means of occupation in the open air, in the fields and gardens, that the adjunct Hospital at Colligno was established.

French Inquiry Respecting Hospitals.—M. Le Fort, so well known here in consequence of the favourable report he made concerning the English Hospitals, and which gave rise to a famous discussion at the Academy of Medicine, has just been despatched by M. Husson, Director of Public Assistance, to investigate the condition of the Hospitals in other parts of Europe, especially in Germany and Russia. Seeing that M. Le Fort's former report conveyed some imputations against French Hospital management, his present appointment is highly creditable to the authorities.

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PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON A TRICHINA EPIDEMIC AT LEIPZIG.

By Dr. E. WAGNER.

Dr. Wagner observes that this might naturally be expected from the amount of food derived from the pig consumed in the raw state at Leipzig, and from the great number of times in which encapsulated trichinæ have been found in the muscles of persons dying of various diseases. Having met with an instance of this in 1859, he has since then made a point of looking for trichinæ, and has found them in greater or less numbers in between thirty and forty bodies. They were encapsulated and generally calcified, but in every instance but two the trichinæ exhibited signs of life on the application of gentle heat.

Between November 7, 1863, and January Dr. Wagner has had eleven cases of trichiniasis in the living person under his own notice, and he thinks that the symptomatology of the affection is sufficiently distinct now to be able to dispense with exploratory punctures or "harpooning." In almost all these cases the affection remained latent for six or seven days after eating the poisonous food, the earliest symptom being in the mild cases œdema of the face, and in the more severe cases a general febrile condition, accompanied with catarrh of the stomach and slight diarrhœa. Œdema in other parts of the body was only observed in three cases. The muscular pains appeared first in the lower extremities, being increased on pressure or movement. Motion of the limbs after long rest was attended by especially severe pain; but in no cases were these pains so great as to prevent all movement. On palpation the muscles seemed in parts quite normal, and elsewhere somewhat swollen and tense. In three cases only was there pain in eating and speaking and hoarseness of voice. In four of the cases which assumed a very grave character there was considerable fever, the pulse rising from 120 to 140, but in the other slighter cases fever was not present. In two cases in which careful search was made no trichinæ could be detected in the stools. Convalescence was tedious, occupying two or three weeks in slight cases, and six or eight in severe cases, the pains of the extremities long continuing, and the emaciation being great.

Two deaths occurred in the persons of a mother and her daughter. The first of these suffered from severe muscular pains until the twenty-sixth day after the poisoning, when she suddenly died while sitting up in bed; and the daughter died on the twenty-third day, with all the symptoms of severe typhus. At the post-mortem examination, the blood of the various organs was found to be free of trichinæ, nor did hours spent in the search discover any among the contents of the intestine. The muscles contained numerous trichinæ in the encapsulated and partly calcified condition, all being alike. Not only the muscular fibres in immediate contact with the trichinæ, but also others at more or less distant exhibited signs of degeneration.—*Archiv. der Heilkvnde*, 1864, No. 2.

[In the last number of Virchow's *Archiv.* (vol. xxix. No. 1) several cases of trichinæ are referred to by Dr. Samter, of Posen, and two are related by Dr. Tüngel, of Hamburgh, in addition to others recorded by him. The latter Practitioner believes that the most certain diagnostic signs are those exhibited as the groups of muscles become successively attacked. When these are situated under a fascia, the œdema is felt deepseated before exhibiting itself under the skin, while when the muscles of the face are affected it at once appears there. This affection of the muscle is especially characteristic when it can be observed from the beginning attacking a spot hitherto unaffected.]

EXCERPTA MINORA.

The Soporific Powers of Lactuca.—Dr. Fronmüller, as the result of a trial of various preparations of *lactuca* in 149 cases in which anodynes were indicated, comes to the following conclusions:—1. Of all the preparations of *lactuca*, the *lactucarium* possesses the greatest soporific power—the English and German lactucarium being more powerful than the French preparation. The *syrupus lactucarii*, which in France has a great reputation as an anodyne, is a less powerful preparation, while Merk and Ludwig's preparation *lactucin* occupies a still lower rank. 2. Lactuca is the least powerful of all the hypnotic drugs. 3. Lactucarium to be of use must be given in doses of from ten to thirty grains.—*Deutsche Klinik*, 1862, No. 44.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

Can any of your readers interpret this somewhat enigmatical advertisement, which I extract from the *Liverpool Mercury* of the 4th inst.:—

"To Ladies.—Dr. ————, London, W.C., corresponds and attends in midwifery. Pregnancy obstructions and all other peculiar cases successfully treated. Apartments if required. Consultations eleven to eight daily."

One can comprehend the assertion that this Dr. ——— "attends in midwifery," but how does he "correspond" in the same, and what does he correspond about, and when does he correspond? It would be rather a protracted midwifery case that would permit a correspondence by letter between Liverpool and London during its progress, and I fear that a series of even the most elaborate telegrams would be, in the estimation of most parturient women, a poor substitute for the services of a Medical attendant. But, perhaps, the "context" may throw some light on this otherwise obscure expression. It appears that *pregnancy* is "successfully treated" by the advertiser. An ordinary Practitioner thinks his treatment of a disease successful when he brings it to a speedy termination. Does the successful treatment of pregnancy bear the same significance here? It would be deeply interesting to know what plan of treatment is followed in these and "other peculiar cases," and which those are for which there are "apartments if required."

It may be that Dr. ——— advertises this in the innocence of his heart, and in blissful ignorance that any woman can be so circumstanced as to desire that a pregnancy should terminate otherwise than naturally or before the full term of gestation has arrived; but, to a woman at her wit's end for an expedient to ward off an exposure which shall take away her good name and blight her prospects, such an advertisement would infallibly suggest one way out of her difficulty—a way which has occasionally brought the patient under the notice of a coroner's jury, and the Practitioner to the bar of a criminal court.

Two cases of death in the Toxteth-park Workhouse came before the coroner on February 27, both illustrating the evils of the system of pauper nursing. The first was that of a poor fellow, a broken-down drunkard, partially paralysed, and nearly imbecile, whose feet were blistered by the injudicious application of a hot water-bottle to them. The blistering ended in gangrene, and the man died. This accident might have happened in any Hospital; but the evidence elicited that the attendance on the sick and lunatics, seventy-one in number, was confided to one man and two assistants, who were themselves sick paupers, and that there were no night nurses at all. The master shoemaker, to whom the supervision of the nursing had been confided at the time of the accident, considered that the assistance he had was ample, and that he could have had twenty more if he had wanted them; a statement curiously at variance with the fact that the governor will not allow the number of nurses represented by the Surgeon himself to be necessary in the fever wards of the same workhouse. The jury, in their verdict, expressed their opinion that there was "gross mismanagement" at the workhouse, and that "the nursing for sick persons was not at all creditable," an opinion in which most who hear of the Toxteth-park Workhouse will coincide.

The second was that of a pauper lunatic, 71 years of age. He was taken one Sunday into the washhouse, and while there nearly strangled a lad who had got the soap and would not give it up. He had retaliated by jumping on the old man's back as he left the washhouse, bringing him to the ground, face foremost, and bruising him severely. He seems to have had every attention paid him after the mischief was done; but the day fortnight following his injury he was found dead.

On making a post-mortem examination, the pericardium was found to contain a quantity of blood, firmly coagulated, and covered by a film of fibrin, on the surface of the coagulum which lay next the heart. Part of the muscular structure was deeply ecchymosed, and in the centre of this bruise was a small hole, not bigger than a pin's head, from which the blood appeared to have exuded. It seems most probable that the ecchymosis was occasioned at the time that the old man was knocked down, and that the hæmorrhage took place but a short

time before death, which was most probably due to the effusion of this blood. There was some effusion of serum on the surface of the brain, and chronic thickening of the membrane. I wonder how long it will be before the improvement in the system of nursing penetrates to the level of pauper Hospitals, or how many victims more it will require before this monstrous evil is redressed?

At the meeting of the Medical Society, on February 18, a remarkable specimen of fracture of the scapula was shown by Mr. Lowndes. The patient from whose body it had been removed was a woman aged 78, admitted into the Northern Hospital, under Mr. Lowndes' care, on December 4, 1863. She had fallen into a cellar, striking upon her shoulder. All over the surface of the scapula crepitus was distinctly perceptible. She did very well up to December 19, when, unfortunately, in lighting something at the fire, she set fire to her clothes, and was so severely burnt that she died next day. The bone was found to have been broken into several distinct fragments, the edges of which were united by firm fibrinous adhesions, visible on both surfaces of the bone. At the same meeting a bladder was shown by Mr. Nash, presenting two very remarkable tumours attached to its mucous surface. The patient from whom it was removed was an ironfounder, aged 40, admitted into the Royal Infirmary, February 4. Three weeks before he had noticed that his water at times dribbled from him, and he suffered slight pain in the back. These symptoms continued, though in varying degrees of severity, until three days before his admission, when he felt "bodily ill," and lost his appetite; but continued at work up to the day of his admission. He stated then that the day before he had passed a few clots of blood with his water. His urine passed from him involuntarily, drop by drop. He complained of pain in his loins. He had a dry tongue, quick pulse, and staggering gait. Very little dulness over the region of the bladder. A No. 9 catheter passed into the bladder failed to draw off any fluid; but on using a large prostatic catheter, two or three ounces of fœtid, bloody urine were withdrawn.

The next morning the use of the same instrument brought away nothing but a little blood and some shreds. The patient then passed into a state very like that of continued fever. There was no urinous odour in the breath, no convulsion, and no coma; but a parched tongue, fluttering pulse, muttering delirium, and at the end of a week he died.

Post-mortem.—The body was well developed and very muscular. Both ureters dilated, hypertrophied, and tortuous. The walls of the bladder were thickened, and it contained five or six ounces of urine. At the orifice of the right ureter was a soft tumour, villous on its surface; a probe passed into the ureter traversed the centre of this mass. The left kidney was much enlarged, and its capsule thickened. On removing the capsule, the surface was seen to be dark in colour, but spotted with numerous elevations about the size of peas, some of these coalescing with others. The cortical substance was softened, yellow in colour, and dotted throughout with masses of substance like softened tubercle or thick pus. The medullary substance was intersected by layers of the same material. The cavity of the pelvis of the kidney was dilated. The right presented very much the same appearances. The peritoneum and the viscera were all healthy. No trace of tubercle in any organ.

The real nature of the growths and deposits was doubtless that of soft cancer.

At the following meeting a case of hydrophobia, presenting some remarkable points, was related by Dr. Ewing Whittle. He was sent for early in the morning one day in August last to see a man, aged 35, who was said to be suffering from retention of urine. While on the way, the messenger asked Dr. Whittle if he had ever seen a case of hydrophobia; and on giving his reason for so apparently far-fetched a question, replied that the patient had some difficulty in swallowing. Dr. Whittle found him with a quiet pulse, clean tongue, and no fever; but noticed that about every five minutes a convulsive shudder took place, some of these seizures being more severe than others. He seemed perfectly sound as to his intellect, and said that he felt at each paroxysm as if electrified. Putting a looking-glass before the patient brought on a convulsion, and an attempt to drink a much more severe one. At first he could not remember that he had ever been bitten; but during the day it came to his remembrance that about two months previously he was working at a gentleman's house, and had occasion to go to the water-closet, and that before he had readjusted his clothes a little lap-dog, which had been lying on a heap of shavings in the corner, flew at him. The animal did not actually bite him, but with one of his fangs inflicted a slight scratch on the end of the penis. The injury was so trifling that he took no notice of it. The scratch healed at once, and the whole matter had passed from his memory. One of his fellow-workmen took upon himself to drown the dog, so that no information could be procured as to its condition.

The remembrance of this circumstance appeared to have a most injurious effect upon the patient. He felt himself doomed, went to bed, took leave of his children, and attempted to read a psalm to them, but was checked by the difficulty of speech which came on him. The paroxysms became more violent; he lay in bed rolling his head from side to side, bespattering the bed with a glairy mucus which constantly flowed from his mouth. His pulse rose, his face became flushed, and he was tormented with the fear that he might bite some one; but he never made the slightest attempt to do so. In consequence of his extreme restlessness, his hands were secured. He continued to suffer till about 36 hours after he was first seen by Dr. Whittle, when he died. It seems that the irritation of the bladder had been felt for two days before Dr. Whittle was sent for, the dread of drinking only on the previous evening

There have been thus four fatal cases of hydrophobia in this town during little more than six months.

GENERAL CORRESPONDENCE.

THE LITHOTOMY DEATH-RATE OF LONDON AND NORWICH.

LETTER FROM MR. HENRY THOMPSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—Very few words suffice to meet Dr. Richardson's remarks of last week, and these only to correct an absolute misstatement of figures. My refutation of his assertion in the *Medical Times and Gazette* of January 9, 1864, that the death-rate after lithotomy in London is "one case in 1·88," remains, as it must be, unanswered.

I read most carefully what Dr. Richardson wrote; but I went further, and carefully analysed, also, the processes employed. I repeat deliberately that he arrived at the death-rate given above *only by excluding all the patients in the London series below* 20 *years of age* (instead of below 10 years, as he states). This is a question of figures; here is the proof:

The data upon which Dr. Richardson took his stand were 186 cases of males. Among them there are 49 cases only over 20 years of age, with 26 deaths. Let any reader make the simple calculation necessary, and he will obtain as result a mortality of "one case in 1·88"! It is not possible to arrive at this figure by any other process. Dr. Richardson could not have named that precise decimal unless he dealt with exactly those cases, and with none others. All the circumlocution in the world cannot alter that fact. I say, then, that he represented the rate from these few adults as if it were the average result of London Hospital practice, and contrasted it with the rate obtained from the entire Norwich series, of which one-half were below 20 years of age. This, and nothing else, is the point at issue between him and me, or, rather, between him and the Surgeons of London.

I am, &c.,

March 21. HENRY THOMPSON.

HOSPITAL MORTALITY.

LETTER FROM DR. T. HOLMES.

[To the Editor of the Medical Times and Gazette.]

SIR,—I should not have written more on this subject, were it not that Dr. Richardson appears to think that I have charged him with something implying want of courtesy on my part, or want of honesty on his. I therefore beg to be allowed to disclaim any such intention. I have said that Dr. Richardson's statistics misrepresent the facts, and I believe that I have proved as much; but I made no charge of wilful misrepresentation. On this matter further argument would be useless. Dr. Richardson's and Mr. Thompson's statistics of death after lithotomy in London can now be compared, and I am confident that only one opinion can be formed from such comparison, by any competent and impartial inquirer. I can with equal con-

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fidence trust to the judgment of any such inquirer to say, after personal examination, whether the Norwich Hospital has any advantage in space or ventilation over any London Hospital; and I can trust to any Surgeon (or indeed any person of common sense, and acquainted with lithotomy), to say whether any such advantage, allowing it to exist, could possibly account for a difference of three to one in the deaths after lithotomy?

The other matters which were in dispute between Dr. Richardson and me (viz., the death-rate of Surgical patients, and the number of cases of pyæmia) can easily be settled by a reference to the authorities of the Norwich Hospital. Dr. Richardson put them forward as being matters of considerable importance. If they really are so, it is the more incumbent on him to see that they are accurately stated, and if he finds the contrary, to rectify the error.

I feel that this discussion (which I hope is now closed) has not been barren of results. If it had had no other result than that of eliciting the admirable letter from Mr. Yeo, of the Winchester Hospital, contained in your last number but one, that alone could not fail to fix the minds of your readers on the true cause of the apparently greater healthiness of our county Hospitals. I am, &c. T. Holmes.

22, Queen-street, Mayfair, London, W., March 21.

UTERINE DILATOR.

Dr. Priestley's Reply to Mr. Ellis.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have read Mr. Ellis's letter in your impression of the 19th inst., and, in reference to it, I have only to remark that I have not seen Mr. Ellis's instrument; nor, indeed, had I previously heard Mr. Ellis's name mentioned in connexion with any form of uterine dilator. Had I been informed that Mr. Ellis had employed an instrument in any degree resembling the one delineated in your pages, I should have deemed it right to notice it in my communication.

I am, &c., Wm. O. Priestley, M.D.

17, Hertford-street, Mayfair, W.

CASES OF SUSPECTED POISONING FROM DISEASED MEAT.

Letter from Professor Gamgee.

[To the Editor of the Medical Times and Gazette.]

Sir,—If Medical men would favour us with the history of the very numerous cases of sickness which occur, of the class reported by Mr. Kesteven, we should in the course of time accumulate some evidence of value. I have been often told by Physicians and others that inexplicable cases of poisoning by animal food have occurred in their practice, which for want of a satisfactory explanation they had not recorded, and must for ever remain enshrouded in mystery. Dr. Ballard's suggestions may encourage Practitioners to enrich Medical literature with statements of fact, such as Mr. Kesteven's, and good must certainly accrue from this; but I am convinced that the only method of investigation suited to throw light on the effects of diseased meat is the synthetical. We cannot indulge in observations on the human subject, and experiments on the lower animals on the largest scale are imperatively called for. I am aware that very contradictory results will be arrived at, however careful experimenters may be, but in the course of time sources of fallacy would be recognised and avoided.

Referring to Mr. Kesteven's case, I wish to notice some important points. He says, "the meat was not unduly fat." It is not right to infer from meat being fat that it is calculated to induce vomiting and purging. In my frequent visits over the country, especially in Yorkshire, Lincolnshire, Essex, etc. I have frequently noticed how wholesome the enormously fat bacon is, which is often the only animal food to be had in the small farm houses at a distance from large towns. I have suffered with other members of my family from eating pork in Edinburgh not half so fat as that which I have lived on in England, and I attribute this to the disgusting manner in which pigs are fed near this city. Thousands of pigs consumed in our large towns are simply carnivorous animals, and swallow, with the entrails of the diseased animals they are fed on, the germs of parasites, which we contract from them. I have adduced evidence of the decidedly morbid condition of certain pigs, which to all appearance are in the most perfect health. Thus, sows fed principally on animal food do not bring forth viable young; and if the piglings ever survive, or very young pigs be bought to be fed, they soon die on the flesh-feeding system. The most robust pigs are often destroyed by eating the carcases of diseased animals. A few days ago eight or nine died near Edinburgh from this cause; and similar instances—kept quiet, of course, by the pig-feeders—are by no means rare.

What I contend for is, the careful examination of animals in life, and the abolition of all establishments where meat is manufactured so as to render it, in all probability, unwholesome and certainly not very desirable food for man. The plan of inspecting cattle after death, and of examining meat chemically, and even microscopically, though by no means to be condemned, cannot possibly lead us to a knowledge of many conditions which render the solids and fluids of the animals we eat poisonous. Mr. Kesteven examined the joint of pork microscopically, and Professor Taylor analysed fruitlessly for poison. I was consulted with regard to outbreaks of disease in cattle, and sheep, and pigs last summer, in which the flesh of the slaughtered animals looked beautiful. The microscope and chemical analysis would be of no use in detecting the animal poison which pervaded the meat and blood of my patients, but all animals died that licked that blood or ate the flesh in a fresh state. I can say more than this—animals have, to my knowledge, been slaughtered in Edinburgh, Dublin, Newcastle, Leeds, etc., when to all appearance they were in perfect health, having been despatched from farms on which splenic apoplexy was raging, and, though many of the carcases might have been cut up and eaten with impunity, no one can doubt who has seen pigs stagger and sink in a state of coma, with ecchymoses over their whole bodies, that many a human being has fared likewise.

I do not wish to draw any other than the most legitimate inferences from the facts as they appear before me in the course of my inquiries into the origin and nature of the disease of animals; but, with the vast amount of ignorance prevailing as to the causes of the most common human disorders, I am, I believe, entitled to hold that etiological blunders are not rarities, and scepticism is often pushed too far. Recently, a letter appeared in the *Medical Times and Gazette* commenting on the cause of death in man from inoculation with the virus of a diseased animal. That that case was one of true malignant pustule I am firmly convinced, and the pigs which eat of the bull that the poor man slaughtered died. I quoted the words of the Medical attendant, to the effect that the victim of the accident was an intemperate man, but I learn that he was not such a subject as the bloated London draymen, whom we know to suffer severely from the slightest wounds. The man got occasionally drunk when he could get drink, but he had long been too poorly paid as a labourer, having also a large family, to have it in his power to drink much or often. Concerning braxy, allow me to state that in the mountain districts of France, Switzerland, Italy, Spain, etc., human beings dare not touch, much less eat, sheep that die of the same malady as the braxy of Scotland. This fact affords us an admirable example of the difficulties attending the investigation of diseases transmissible from animals to man, and which at one time can be thus transmitted, and at another not. Anthracic diseases are unquestionably more readily communicated to human beings in many parts of the Continent than they are here, but even abroad the most singular discrepancies in the observations of Practitioners cannot fail to strike the student of Medicine.

Returning to Mr. Kesteven's case, it is important to notice that the joint of pork was "underdone and red." Animal poisons are usually, not always, destroyed by good cooking, and it is the duty of every Physician to combat the prevailing notion that underdone meat is more digestible and nourishing than well-cooked food. We must trust much to the fire in purifying our food, and we shall always have to rely on it to a great extent. Allow me, however, to suggest that Medical men should err on the safe side whenever consulted as to the wholesome or unwholesome character of the flesh of diseased animals, and if a committee of scientific men were appointed at present to determine whether the wholesale slaughter of diseased animals at present going on should be permitted, although positive proof of ill effects would be scanty, the presumptive evidence would be so strong as to lead to a very decided conclusion in favour of doing all that is possible to check the progress of diseases which are leading to the contamination of our meat markets. It is clearly the duty of every Medical Officer of Health to act as Dr. Letheby does

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in the City of London; but to check the traffic in diseased meat we require measures such as those now before the House of Commons, and I do trust that the influence of the Medical Profession throughout the country will be brought actively to bear so as to ensure a good start to a new and wholesome system of cattle disease prevention. Such a system will not be amongst the most trivial of the sanitary reforms of the present century.

I am, &c.,

New Veterinary College, Edinburgh, March 7. JOHN GAMGEE.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, FEBRUARY 23.

Mr. PRESCOTT HEWETT, President.

MR. SYDNEY JONES brought forward a boy who had

NUMEROUS EXOSTOSES.

They were very numerous, and were situated chiefly on the lower extremities; but there were some on the ribs and on the bones of the arms. They were symmetrical. Mr. Jones said that, as the boy's parents would not permit any operation to be performed, dilute nitric acid was given internally, and, he thought, with some benefit. None of the exostoses were larger, and some were certainly smaller.

Mr. W. ADAMS referred to cases of multiple exostoses under his care at the Orthopædic. They were, he said, invariably symmetrically placed and symmetrically developed. He had never given nitric acid. In ninety-nine out of one hundred the growth spontaneously ceased. He had seen cases ten years after they had ceased to grow. If an acid were to be given, he should, on theoretical grounds, prefer the phosphoric.

Mr. SYDNEY JONES said that he commenced the treatment by phosphoric acid; but he was found fault with for using it. It was said that if there were an excess of lime in the system, the acid would form with it phosphate of lime, and thus furnish more material for deposition.

Mr. HULKE said that the growth of the exostosis was due to the cartilaginous layer over it rather than to an excess of earthy matters in the system.

Mr. SYDNEY JONES thought that if there were an excess of phosphate of lime in the blood, the tendency to the increase of the exostoses would be greater.

Dr. SANDERSON suggested that it would be well to give distilled water in such cases.

Mr. BROOKE asked if lactic acid had been tried, as it was said that lactic acid removed excess of phosphate of lime.

Mr. SQUIRE exhibited

A MALE CRAB LOUSE.

This was a rare specimen, as Kuchenmeister had only examined females, and Moquin Tandon makes no mention of the male. The male differs considerably from the female. Mr. Squire also exhibited a photograph taken from the microscope, and suggested that more use should be made of photography to delineate microscopical specimens in pathology.

Mr. HY. SMITH exhibited

PARTS REMOVED IN EXCISION OF AN ANCHYLOSED KNEE.

A soldier was shot in the knee-joint at Inkermann. Violent inflammation followed, but he at length recovered with a stiff knee, and was enabled to act as a Commissionaire for six or eight years. At the end of this time inflammation again set in. When Mr. Smith again saw the patient the limb was bent nearly at a right angle, and was nearly useless. Mr. Smith removed a wedge of bone, and thus restored the limb to the straight position. He was able to remove just enough to get the leg straight by the two incisions necessary to cut the wedge. The patient, a tall, healthy man, recovered. His limb was quite anchylosed, and he was now overlooker at a mine in Wales, and could walk twelve miles a-day.

Mr. HY. LEE said that excision of the knee-joint was not so successful in adults as in children. He had recently removed a segment from the anchylosed knee of a child with an excellent result.

Mr. HY. THOMPSON thought the case should scarcely be called one of excision of the knee-joint.

The PRESIDENT remarked that the operation was rather to be thought of as one of excision of bone than as an excision of a joint. The joint was quite gone, all the parts being fused together.

Mr. TEEVAN exhibited

AN OBTURATOR HERNIAL SAC.

It was taken from the body of an adult male which came into the dissecting-room at Westminster Hospital. The sac was about an inch long, quite empty, and had protruded before it a considerable piece of the subperitoneal fat. There was also in this subject extensive tubercular affection of both lungs, together with a scirrhous cancer of the rectum.

The PRESIDENT then related a case in which a patient with symptoms of strangulation, and who had protrusion of the femoral ring, was operated on, as for femoral hernia, but no intestine was found. The symptoms continued, and the patient died. At the autopsy, strangulated obturator hernia was found. The President remarked that Mr. Obré was the first to diagnose strangulated obturator hernia during life, and thus to save the patient's life.

Dr. MURCHISON read a report on Mr. Pitt's case of obstruction of the bowel by a concretion. The concretion contained a good deal of cholesterine, and was no doubt of biliary origin. Dr. Murchison also showed another like specimen, by which the small intestine had been obstructed; but in this case there was a fistula between the duodenum and the gall-bladder.

Dr. DICKENSON showed a piece of bowel from a patient who died of

TYPHOID FEVER.

A boy, a sweep, died of typhoid fever on the sixth day. He had had no spots, but diarrhœa and abdominal tenderness. All the solitary glands in the small intestines were in a state of great prominence, nearly as large as peas; they had large, round heads, and narrow necks. Peyer's patches were swollen, and one or two were ulcerated near the valve.

Dr. MURCHISON did not think such appearances rare in typhoid. In some cases Peyer's patches, in others the solitary glands, were chiefly affected. Such a condition of the solitary glands had led some to compare it with variola.

Dr. MURCHISON exhibited a specimen of

ABSCESSES IN THE KIDNEY FROM A PATIENT WHO HAD HAD TYPHOID FEVER—PYÆMIA (?).

The patient, a girl, aged 19, died on the forty-second day. On the thirtieth day she was well of the special typhoid symptoms, but still did not get on, but became more and more emaciated; but she had no rigors, and none of the ordinary symptoms of pyæmia. After death, ulceration of the intestines was found, presenting good specimens of the atonic ulcer. The spleen had returned to its natural size, and the mesenteric glands were not enlarged. In the kidneys were several small abscesses. There was no other evidence of pyæmia.

TESTES FROM AN HERMAPHRODITE SHEEP.

Dr. WILKS exhibited some testes which had been given him by Mr. Turner, of Bermondsey, and which had been taken from an ewe sheep. The animal had always been regarded as a female sheep, and was cut up as such by the butcher. The testes were found in the groin. Each consisted of two rounded bodies placed one over the other; the lower was evidently an undeveloped testis, but the upper was of a more doubtful nature. It contained several large tubes, and Dr. Wilks thought it might be the remains of a Wolffian body. The vas deferens ended in a blind extremity. Dr. Wilks alluded to the fact of too much stress having hitherto been laid upon the fact of an animal possessing undeveloped testes as determining the sex. A more modern investigation, such as that of Mr. Curling, had shown that a testis retained in the body, and of the character described, was functionally powerless, and thus its possessor might have none of the attributes of the male sex. What was remarkable, however, was the fact that in such instances the animal often put on the character of the female. It was so in the present example. John Hunter had remarked the same in oxen, and in the human subject similar cases had been observed. Dr. Wilks mentioned the instance of a person who possessed every feminine quality except the essential sexual character, and yet in this person undeveloped testes existed. Although she had always been considered a woman by herself and friends, she was now (as regards the undeveloped organs) to be placed in a bottle, and ticketed as a male. There did not seem sufficient reason for so doing. Although the poet Tennyson had declared that "Woman was not undeveloped man, but diverse," this doctrine had not been physiologically proved.

Dr. Wale Hicks exhibited a specimen of

MALFORMATION OF THE GREAT VESSELS.

This specimen was taken from a child who died on the fourth day. The true aorta, arising from the left ventricle, was small, and gave off only the innominate and the left carotid and subclavian arteries, while the artery given off from the right ventricle was very large, and after giving off the pulmonary arteries, was continued over the left bronchus as the descending aorta. The septum ventriculorum was perfect. The same child was the subject of crania bifida, a circular opening in the occipital bone forming a communication between the cranial cavity and a sac formed of dura mater, lined by serous membrane, and containing fifteen fluid ounces of blood-stained serous fluid.

Dr. Gibb exhibited for Dr. Grant, of Ottawa,

A DRAWING OF THE HYPOGASTRIC REGION OF A LAD AGED 20, with eversion of the bladder, absence of the normal umbilical cicatrix, and deficiency of the corpus spongiosum. There was constant dribbling of urine, and consequent irritability of the surrounding skin. Directly above the pubes was a projecting growth, red, villous, and exceedingly vascular, three inches broad, and divided into three lobes, the whole structure arising from eversion of the bladder. The penis was rudimentary. There was a congenital inguinal hernia of the left side, and both testes were normal, and so was the body in other respects.

Mr. Hinton exhibited a specimen from a case of

LARGE AURAL POLYPUS.

The specimen was taken from a man, aged 42, who died from an injury. A fibro-cellular growth occupied the whole meatus of the left petrous bone, and protruded from its orifice. It was attached to the periosteum of the canal at its superior part, but took its origin chiefly from the cavity of the tympanum, which it seemed entirely to fill, being attached to the whole of its walls except the inner surface of the membrana tympani, the upper third only of which was destroyed. The Eustachian tube was not obstructed, but the growth was attached all around its tympanic orifice. The upper portion of the mastoid cells also were filled with a similar fleshy mass. There was no disease of the bone. The right ear was healthy.

Mr. Hinton showed also

THE PETROUS BONES TAKEN FROM A BOY, AGED 16, WHOSE SKULL HAD BEEN FRACTURED BY MACHINERY.

In this case the line of fracture passed from near the left orbit through the petrous bone of the opposite side (the right); it took the line of the Eustachian tube, and the membrana tympani was separated from its attachment to a small extent at its most superior part. There was profuse bleeding from the mouth and from this ear. From the other ear also, although not at all implicated in the fracture, a few drops of blood had escaped; and on examination it appeared that the membrana tympani had been detached in exactly the same spot as on the opposite side, thus indicating a line of force traversing the skull on this side corresponding to the direction taken by the fracture on the other.

HARVEIAN SOCIETY OF LONDON.

At a late meeting of this Society, Dr. Wadham, Vice-President, in the Chair, a paper was read by Dr. Charles Drysdale on

EVIDENCE AGAINST THE INTERNAL USE OF MERCURY IN SYPHILIS AND OTHER DISEASES.

The author first pointed out the difficulty there exists in proving any drug to be a specific. We could (he observed) understand the action of Epsom salts or chloroform, because we know how they acted upon human beings in health; but, with the exception of quinine in ague, we had perhaps no undisputed antidote for any diseased condition. He quoted from Mr. J. S. Mill to show how difficult it is to treat disease experimentally. Skey, Desruelles, Copland, etc., had shown that mercury has the power of causing caries of bones and complete degradation of the body, both in human beings and in dogs. Of all the properties assigned to mercury, the only one which it undoubtedly possessed was that of acting as a purge, and, from its bad effects upon some individuals, it was evidently a bad purge. Mercury was called a cholagogue, but recent experiments on dogs had proved that calomel actually diminished the biliary secretion. The use of calomel and opium was now abandoned by the best Surgeons in all traumatic cases and in peritonitis. In iritis, mercury had been shown to be useless, and probably injurious, by Hugh Carmichael, Dr. Williams, of Boston (who treated sixty-four cases of iritis without it, sixty of which recovered perfectly), by Dr. Hughes Bennett, and by Mr. Zachariah Laurence. Mr. Acton, too, confessed that he thought that syphilitic iritis was frequently produced by courses of mercury. As to pericarditis, forty cases, published by Dr. Taylor, of University College, had proved the evils of salivation, and its inutility. In acute hydrocephalus, again, there was reason to believe that the great mortality of the complaint was partly to be attributed to the mercury and bleeding employed. As to mercury in bronchitis, pneumonia, and pleurisy, there had lately been 150 cases of uncomplicated pneumonia consecutively treated in Edinburgh by Professor Hughes Bennett without mercury or bleeding, all of which had recovered. Dr. Walshe held that mercury did harm, not good, in inflammatory complaints; and Dr. Hughes Bennett considered mercury always to be an evil, and that it should never be administered in any disease. Passing on to the citadel of mercurialists—syphilis—he said he agreed with Syme, Ricord, etc., that ulcers on the genitalia and eruptions had always existed, although Celsus was unaware of their sequence. He quoted Dr. Wm. Fergusson's works of 1812 and 1846, showing how many thousands in the British army had recovered from primaries and secondaries without ever having taken a particle of mercury; and how dreadfully the army had suffered in Portugal from the effects of mercurial inunction. Next, from Mr. Guthrie, late President of the College of Surgeons, to show that all ulcers of the organs of generation recover without mercury. Of 407 cases treated by Dr. Hennen, iritis occurred in 1; exostosis in 1; and no case of nasal bone affection occurred without mercury. In 1818, and subsequently, Dr. John Thompson had in Edinburgh treated a large number of cases of venereal disease among the troops, and the only symptoms observed were sore throat and eruptions, slight, though somewhat tedious, and all recovering perfectly without mercury. He had not had any deep ulcers of the skin, or bone disease, as when mercury was used. Dr. Desruelles had, in the Val de Grace Hospital, treated a large number of soldiers from the year 1819 to 1841 without mercury with the best results. He mentions that up to the year 1841 upwards of 300,000 cases so treated in England, France, Germany, and Sweden had been recorded. Dr. Frieke treated, in the Hamburg Hospital, from 1824 up to 1844, 15,000 cases of all kinds of venereal disease without mercury. In his work, published in 1828, he says of the cases therein mentioned, that iritis had not occurred, nor any case of bone disease, or deep ulcers of the skin, which affections were very common when mercury was used. His treatment consisted of cleanliness, low diet, and external application, with Epsom salts as a purge. Dr. Drysdale mentioned the large experience of the Swedish Government, where 46,687 cases were recorded, and where non-mercurial treatment had proved far the more successful. 5271 cases recorded by the French Council of Health had shown a result of one or two cases of exostosis, no caries. M. Ricord had founded a new school, which gave in indurated sores a six months' course of a daily dose of mercury, followed by three months of iodide of potassium, to act as an antidote to the poison. Dr. Drysdale quoted from Mr. Syme how "a fearful system has recently been founded on the ruins of the mercurial delusion." Mr. Syme says that the natural history of syphilis, where treated by hygiene and external applications, without mercury, is that of a very slight disease; and Professor Hughes Bennett says:—"The idea that mercury is an antidote for the syphilitic poison, and the incalculable mischief it has caused, will constitute a curious episode in the history of Medicine at some future day." Mr. Weeden Cooke and Mr. Spencer Wells both attribute the bad tertiary effects in syphilis to the use of mercury—not to the natural disease. Professor Boekh's (of Christiana) experiments, published in 1863, show that 1008 cases of primary disease and secondaries, treated with calomel and iodide of mercury, required, on an average, sixty-two days for treatment; whilst 611 similar cases, treated with Epsom salts and external applications, required only thirty-eight days. Also, when primary sores were treated with mercury, 24 per cent. had secondaries, and, when treated without mercury, 14 per cent. only. The United States Army direction had recently forbidden the administration of calomel, which was (Dr. Drysdale remarked) the result of their conviction of its inutility; and Dr. Diday was now treating most cases of

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secondary syphilis without mercury, and had recorded the dreadful effects of M. Ricord's plan of treatment in causing mania, apoplexy, dyspepsia, and frequent salivation. MM. Cullerier, Fournier, and others in Paris, with whom he had conversed, have abandoned mercury in treating all primary sores, and await the eruption, which (Dr. Drysdale said) he hoped was but the prelude to giving up the drug altogether, and returning to the rational, or non-specific treatment, which was so superior in its results. The author said, of infantile syphilis—(1), he thought it very frequently the result of mercurio-syphilis in the parents; (2) it was injured, instead of benefited, by mercury, as recently proved by Mr. Allingham and himself.

Mr. Zachariah Laurence said, in referring to his paper "On the Treatment of Inflammation of the Eye by Morphia," in the *Edinburgh Journal*, that, in his opinion, the greater part of these inflammations originated in irritation of the branches of the fifth nerve, to which the congestion of the blood-vessels was but secondary. As familiar illustrations of this, Mr. Laurence alluded to the act of blushing, and the congestive conditions of the cheek following severe neuralgia of the part. The so-called absorbent powers of the combination of mercury and opium he considered a natural consequence of the subsidence of the inflammation, altogether independent of the specific action of either of the drugs. He lastly called attention to the fact, that the advocates of mercury employed three agents in their "experimental" inquiries:—1. Mercury. 2. Opium. 3. Nature. To which of these three should we ascribe their results? Mr. Laurence agreed with the views of Dr. Drysdale in ascribing them to the latter. At any rate, the non-mercurialists had the advantage of simplicity, inasmuch as they only employed one agent—Nature—in their inquiries.

Mr. Sedgwick was quite disposed to agree with Dr. Drysdale, especially in regard to syphilis. He had had considerable experience of the non-mercurial treatment of this disease, having been assistant to the late Mr. Morton, of University College, for upwards of a year, when that gentleman treated a large number of cases with Epsom salts and external applications with the greatest success. Subsequently, when Surgeon to the 70th Regiment, he had treated many cases of syphilis, and found the disease quite amenable to hygiene and external applications. In fact, he considered that we ought to look on the eruption as a means of getting rid of the poison, and not treat it as in any way a grave disease.

Mr. De Meric said the Society ought to be much obliged to Dr. Drysdale for the elaborate collection of evidence produced on his side of the question. The author had, however, shaded his picture too deeply, and the arguments reminded him of those used against alcohol, which resulted in failing to convince, for people still partook of it. It must not be supposed that, because such an array of facts can be brought against the use of mercury, therefore there is nothing to be said on the other side. He objected to the appellation of *mercurialist* as being applied to a Practitioner who was in the habit of giving mercury, when experience had taught him the case required it. Men of experience use the drug because they have found it produce good effects, and, when carefully used, no bad effects. Did they think that any man would go on giving it if he found it injurious? With regard to the experiments quoted, from the time of Fergusson and Guthrie down to that of Frieke and Desruelles, they were valueless, because these writers did not discriminate the cases treated. Practitioners would not now give mercury in the majority of the cases mentioned. And as to bone disease being caused by mercury, he had seen destruction of the nasal bone when no mercury had been taken; and, indeed, in some cases, periostitis had been the first secondary symptom, leading on, in some cases, to a fatal result. Phagedæna, too, is due to dirt, neglect, and intemperance, not to mercury. Hereditary syphilis had been said by some not to require mercury, and to be caused by mercurio-syphilitic disease of the parents; but he had recently shown that children of syphilitic parents may be born perfectly healthy. With regard to an argument in Dr. Drysdale's elaborate work on the subject of the paper, viz., on the treatment of syphilis, etc., without mercury, which he had had the advantage of reading, that there had recently appeared to him in the Paris Venereal Hospital very few bad cases of syphilis compared to what he used to see, which he ascribed partly to the fact that Cullerier and all the present school had left off mercury for primaries, he considered this a most unwarranted inference.

Mr. Lane, after complimenting the author on the mass of evidence on one side of the question, said, if authorities were necessary on his side, he could point to Lee, Langston Parker, etc. If there was one fact better ascertained than another in modern Surgery, it was the necessity of administering small doses of mercury in syphilis. The indurated sore is much benefited by it, and there can be no doubt of its utility in secondary symptoms, which disappear rapidly when mercury is administered. In the tertiary symptoms, however, it should not be used. With respect to bone disease, he could corroborate Dr. De Merio's statements, for he had seen bone disease where no mercury had been taken by the patient. He thought mercury also most valuable in cases of infantile syphilis, especially in inunction.

Mr. Weeden Cooke observed that the error of Practitioners lies in considering mercury to be a specific for syphilis. Were it merely given in an occasional dose to promote the elimination of the poison, he would not find any fault with the practice. He thought we ought to consider syphilis as an animal poison, and that the eruption is the cure of the disease. In most cases the skin and liver act well, and completely eliminate the disorder if let alone; whilst, when mercury is used, the eruptions return indefinitely. As to the term "mercurialist," complained of by Dr. De Merio, being a reproach, he might remind him that he (Mr. Cooke) had suffered under the appellation of non-mercurialist, which at present was considered a reproach, although he held the contrary opinion. He complimented the author on his boldness in bringing this subject so prominently before the Society. He had scarcely been bold enough to do so.

Mr. Allingham said: In the first place, what we now want is to know the natural history of syphilis, *i.e.*, what the disease will result in when not interfered with by so powerful a drug as mercury. For his own part, he had for a long time treated all primary sores without mercury; and, although not so rooted an anti-mercurialist as the author, he must say he believed that all forms of syphilis could be successfully treated by means of hygiene and local applications, and without mercury. As to infantile syphilis, he had been so discontented with the mercurial treatment of that form of the disease, that he had made some researches upon the subject, which resulted in the discovery that 29 per cent. of deaths took place under this kind of treatment. He had therefore abandoned it, and now gave only chlorate of potash; and he had treated twenty-three cases in this way, with very excellent results; out of fifteen cases, all got well except one.

OBITUARY.

MR. RALPH ALLEN FROGLEY.

The subject of this memoir, Ralph Allen Frogley, of Hounslow, the son of a Surgeon residing in that town, was himself educated for the Medical Profession, pursuing his studies at the Windmill-street School and at St. George's and the Westminster Hospitals. He became a member of the College of Surgeons in the year 1812, and in consequence of the failing health of his father, was obliged at once to commence the active practice of his Profession. So great was his energy and determination of character, combined with rare Professional knowledge and skill, gentlemanly manners, and an address which inspired confidence, that he speedily established himself in a lucrative and extensive practice, which he carried on alone until the year 1839. Many eminent men were his pupils, among whom we may mention Mr. Samuel Lane and Dr. Emmet, of Egham, the latter of whom he took into partnership. Subsequently, on the retirement of Dr. Emmet, he was associated for a short time with Mr. Benfield, now one of the Surgeons of the Leicester Infirmary. From 1849 to 1854, Dr. Hall, of Brighton, was his partner, who was succeeded by Mr. Douglass and Mr. Bullock, who now carry on the practice. Mr. Frogley was well known as a skilful operator and successful Accoucheur; in evidence of the former it may be mentioned that, among other operations, he tied the carotid and femoral arteries, cut for the stone, and on one occasion operated for hernia, and amputated the thigh close to the hip-joint, the patient being the subject of enchondroma. The limb removed weighed upwards of a third of the body. The case is recorded in the *Medico-Chirurgical Transactions*, and the patient is still alive. So successful and popular was he that he was often consulted in difficult cases of all kinds by neighbouring Practitioners, and the name of Frogley was well known for many miles around Hounslow. He held at various times numerous public appointments, including that of Medical

Officer to the parishes of Feltham, Bedfont, Norwood, Hanworth, Heston, Cranford, and Harlington, and the School of St. George's and St. Giles's, Bloomsbury, at Heston, and was also Surgeon to the T division of police, and to the extensive powder mills of Messrs. Curtis and Harvey.

Mr. Frogley was universally beloved by all classes of his patients; to the poor he was especially kind and attentive, never allowing social *status* to make the slightest difference in his treatment of a case. In spite of the arduous duties of a large practice, he for many years cultivated a considerable farm, and was known as a first-rate judge of stock. The town of Hounslow is mainly indebted to Mr. Frogley's energies and exertions for the erection of a town-hall.

In 1853 he was elected a Fellow of the College, and on March 15 in the present year he died at Brighton from anasarca and congestion of the lungs, the results of valvular disease of the heart.

LEGAL INTELLIGENCE.

SPRING ASSIZES.—WESTERN CIRCUIT.—BODMIN

NISI PRIUS COURT.—(*Before Mr. Baron* BRAMWELL *and a Special Jury.*)

MILLETT *v.* EDMONDS.

MR. COLERIDGE, Q.C., Mr. H. T. Cole, and Mr. Bullar were counsel for the plaintiff; and Mr. Karslake, Q.C., and Mr. Kingdon for the defendant.

The declaration alleged that the defendant had maliciously and without probable cause made an information before the Recorder, Mr. Tonkin, imputing to the defendant that he had maliciously administered poison to Jacob Curnow Millett, with intent to cause his death, and that he had so caused his death; that an application was made to the Secretary of State for an order for the exhumation of the body; that the charge was pursued before the magistrates; that the case was heard for many days, and resulted in the discharge of the plaintiff.

The case, as may be recollected, created a great sensation at the early part of this year. The plaintiff was Richard Oke Millett, and was a member of the College of Surgeons. The defendant was also a Surgeon residing in London, and had married the sister of the plaintiff. The action was brought to recover damages for a malicious prosecution, which charged that the plaintiff had caused the death by poison of his own brother, Jacob Curnow Millett. The charge was made in the most deliberate manner, and was persisted in. The deceased resided with his brother, the plaintiff, at Penpoll, in this county. There had been an estrangement in the family, in consequence of the marriage of the plaintiff's sister with the defendant. Jacob Curnow Millett was of peculiar habits, had water on the brain, and was a man of very generous habits and strong religious feelings. Last year he had been failing, his eyesight had become impaired, and he complained much of his head, and could take but little exercise. In February, 1863, he altered his will, and bequeathed everything to the plaintiff. On December 30 he partook of a very hearty dinner, and afterwards complained of feeling "sinking." The plaintiff gave him brandy, and he said he thought he felt better, but complained of cold. In the course of that evening it was evident that he had a seizure, and in a few hours he died. The plaintiff then sent for the coroner and the undertaker. An inquest was held, and a verdict was returned that the deceased had died from natural causes, and he was in due time buried, but in a short time the defendant applied to the Secretary of State for an order for the exhumation of the body. This was granted, and on January 22 the plaintiff was arrested by two policemen on a charge that he had poisoned his brother; he was the next day taken before the magistrates at Hayle, where a large mob had collected. He was taken before the magistrates four times, but he was detained in custody all the time, as bail was refused; he was fourteen days in custody, but eventually he was discharged, and he then brought this action.

The plaintiff was examined at very great length, and he swore that there was not the slightest pretence for saying that he had anything to do with his brother's death or his uncle's death. His uncle was found dead in his bed. He found his father dead in his bed. His sister Jane had been found dead in her bed by his sister Caroline, who slept in the same room.

Dr. Taylor was called, and stated that he examined the viscera of the deceased, which were sent to him, and he could not detect any symptom of poison, nor the effect of any. The appearances were quite consistent with death having arisen from natural causes. The circumstances attending the death also led to the belief that death had arisen from natural causes. A copy of his report had been sent to the Secretary of State. He believed the deceased had died from pressure on the brain, from the serum found in the ventricles of the brain. The pain in the stomach of which the deceased had complained was to be accounted for by the hearty meal he had made. It was not a symptom of narcotic poisoning.

Several Medical men (amongst whom were Drs. Barlow and Wilks, of Guy's Hospital) were examined, who agreed in the view taken of the case by Dr. Taylor.

The defence was that, in consequence of the sudden deaths of several members of the family, there were rumours in the neighbourhood which had at last reached the defendant, and that he had thought it incumbent on him to cause an investigation; that he had acted perfectly *bonâ fide* in the matter, and had not been actuated by any ill will or malicious motive towards the plaintiff. In his examination, the defendant stated that, although at the time he considered there were sufficient grounds for the course he had adopted, yet he was now fully convinced of the plaintiff's innocence of the charge.

Mr. Baron Bramwell, in summing up, observed that it was impossible not to say that the plaintiff had been entirely acquitted of the charge which had been made against him. He was acquitted on the evidence of some of the most eminent authorities in the world, and on the statement of the defendant himself.

The jury having retired, returned a verdict for the plaintiff—Damages, £400.

MEDICAL NEWS.

UNIVERSITY INTELLIGENCE.—UNIVERSITY OF LONDON, 1864.—Examination for the Degree of Master in Surgery:—

PASS LIST.

Richard Whitfield Hewlett, M.D., King's College; Walter Rivington, B.A., M.B., London Hospital; Rickard Patrick Burke Taaffe, M.B., St. Bartholomew's Hospital.

HONOURS LIST.

First Class.—R. Whitfield Hewlett, M.D. (Scholarship and Gold Medal), King's College; Walter Rivington, M.B. (Gold Medal), London Hospital.

This was the first Examination for the M.S. Degree in this University.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a General Meeting of the Fellows, held on Monday, March 21, 1864, Thomas Watson, M.D., F.R.S., was unanimously re-elected President of the College for the ensuing year.

At the same Meeting, the following Gentlemen, having undergone the necessary Examination, were duly admitted Members of the College:—

Frederic Bagshawe, M.B. Cantab., 21, Connaught-square; William Henry Witherby, Coombe, Croydon; and James Alexander Grant, M.D., Montreal, Ottawa, Canada West.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, March 17, 1864:—

Joseph Morris, Studley, Warwickshire; Edward Peter Shorland, Westbury, Wiltshire; Daniel Iles, Fairford, Gloucestershire; John Hargreave Wraith, Over Darwen, Lancashire; Charles Richard Price, London Hospital; William Garlick, Park-square, Leeds; Harvey John Philpot, Wilton-terrace, Kensington; William Gandy, South-street, Park-lane; Algernon Newbegin Watts, Westminster Hospital; John Henry Edwards, Llangefin, Anglesea; Walter Whitehead, Windermere; Edward Colden, St. George's Hospital.

The following gentleman, also on the same day, passed his First Examination:—

Frederic George Denton, Hornsea, Hull.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BECKETT, A. R., L.F.P.S. Glasg., has been appointed one of the Resident Medical Officers of the Liverpool Workhouse and Fever Hospital.

BELLAMY, EDWARD, M.R.C.S. Eng., has been appointed Surgical Registrar to King's College Hospital.

CRUCKNELL, H. H., M.B., has been appointed Physician to the Great Northern Hospital, Caledonian-road.

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ELLIS, JAMES, M.R.C.S. Eng., has been appointed Resident Medical Superintendent of St. Luke's Hospital for Lunatics.

HARDESTY, JAMES JEFFREY, L.R.C.P.E., has been appointed Medical Officer and Public Vaccinator for the Parish of Garwald, Haddingtonshire.

HARGOOD, FREDERICK H., M.R.C.S. Eng., has been appointed Medical Superintendent to the Royal Lunatic Hospital, Liverpool.

HEAD, EDWARD, M.B. Lond., has been elected Physician to the Surrey Dispensary, Great Dover-street.

KILGOUR, ALEXANDER, M.D. Aberd., has been appointed Consulting-Physician to the Aberdeen Royal Infirmary.

MITCHELL, THOMAS R., M.D. St. And., has been appointed Admiralty Surgeon and Agent for Swanage.

MORRIS, JOHN G., M.R.C.S. Eng., has been appointed one of the Visiting Surgeons to the Hereford Dispensary.

MONCKTON, ALFRED, M.R.C.S. Eng., has been elected Medical Officer and Public Vaccinator for Nos. 6 and 7, or Brenchly and Horsmonden districts, of the Tonbridge Union, Kent.

NAYLER, GEORGE, F.R.C.S. Eng., has been elected Assistant-Surgeon to the Orthopœdic Hospital.

REITH, ARCHIBALD, M.D. Aberd., has been appointed Physician to the Royal Infirmary of Aberdeen.

SCOTT, NATHANIEL G., M.R.C.S. Eng., has been appointed Resident Medical Officer to the City of London Hospital for Diseases of the Chest, Victoria-park.

SMITH, J., M.R.C.S. Eng., has been elected Resident Medical Officer to the Notting-hill and Shepherd's-bush Dispensary.

DEATHS.

BOND, HENRY, M.R.C.S. Eng., at Ecucha, Australia, on January 2, aged 40.

KING, GILBERT, M.D., Inspector-General of Hospitals and Fleets, R.N., at 38, Gibson-square, Islington, N., on March 18, aged 73.

MACARTNEY, JOHN, L.R.C.S.I., Staff Assistant-Surgeon at Barbadoes, on January 30.

MACKENSIE, THOMAS, C.B., late Inspector-General of Hospitals, Bombay, at 2, Segrave-villa, Cheltenham, on March 17.

SYKES, JOHN, M.R.C.S. Eng., at 252, Mile End-road, E., on March 17, aged 42.

TOBIN, Dr. JOHN KELLY, at Brussels, on February 17.

THE CORNWALL LUNACY CASE.—The trial of Samuel Porter, of Flushing, near Falmouth, for maltreating and wilfully neglecting his brother, Robert Porter, a lunatic under his charge, was concluded on Thursday, March 17, before Mr. Baron Martin, at Bodmin. The case, it will be recollected, created a great sensation a few months ago. It is sufficient to say that all the allegations as to the horrible condition of filth and neglect in which the lunatic existed when discovered by Dr. Byrne were entirely proved by the evidence of the Commissioners and himself. The jury found the defendant guilty of neglect, but added the following extraordinary and disgraceful clause to their verdict:—"That they recommended him to mercy, on the ground that they did not think he was aware of the law." Sentence was postponed till the opinion of the Court of Appeal shall be known on a point of law raised by the defendant's counsel. It was urged by his counsel that the statute under which the indictment was drawn referred only to persons keeping asylums or taking in lunatics for hire; and a case was cited which was allowed by the Judge to have some bearing on the question, in which it was decided that a husband could not be considered to have "care and charge of a lunatic wife within the meaning of the statute, as such a charge was only of a domestic nature." If this be valid law, the very fact of the relationship of the prisoner to the poor wretch—a circumstance which, if anything can do so, enhances tenfold his barbarity—places him out of the reach of retribution. Such a miscarriage of justice is not unlikely, for the man has been discharged on his recognisances to appear in case the Court of Appeal decide against him.

THE SANITARY CONDITION OF LIVERPOOL.—At a special meeting, on Wednesday, February 24, the Town Council of Liverpool adopted a bill enabling the Corporation to borrow £100,000, and to lay on a rate not exceeding a penny in the pound, for improving the sanitary state of the town—especially of the courts and alleys. The necessity for such a measure will be seen by the following extracts from the speech of Mr. Bowring, the Chairman of the Health Committee:—"From the Medical Officer of Health's return for the borough of Liverpool, he found that the deaths in the borough in 1863 were 15,266, a number which, the Medical officer stated, was greater than in any year since 1859, and 549 above the corrected average of the last ten years. Those deaths were not all due to violent epidemics or to any disease of a special character which visited the town, but they were caused by all diseases to a great extent prompted by existing circumstances around them. They had, then, a death-rate of 33 in the thousand in the whole borough, against 27·5 in 1859 and 25·7 in 1860. If they sought further to analyse that death-rate they would find that in 1863 the rate for the parish was 36, and in the out townships 29, per 1000; and he was sure, from the experience of the past few weeks, from the commencement of the year to the present time, that if this year went on in the same way that it had commenced the death-rate of the year would be in considerable advance of 1863, great as it was that year. It was certainly unfair to compare Liverpool with the general average of the kingdom: it was, indeed, scarcely fair to compare it with the general average of the towns of the United Kingdom, at least not the smaller towns. But he would take the average of the larger towns, as stated by statistics in whom the Council might rest confidence, to be about 27. And when he found, on comparison of that estimate with the actual fact, that they had in Liverpool a loss of life of six in 1000, amounting to a loss of 2790 lives every year, he thought they were bound to conclude that some cause of mortality existed in Liverpool not found in other large towns." In considering the causes of this high death-rate Mr. Bowring said he would call the attention of the Council to a paragraph in the borough engineer's report, in which, after stating the number of courts and alleys in the town, and describing them, the engineer said:—"Unfortunately, however, such are the exceptions"—referring to the superior courts. "The majority of the courts in Liverpool is very different indeed. The houses are generally built back to back; one end of the court is closed as a rule either by houses or, which is worse, by the privies and ashpits; or a worse state of things still, the privies and ashpits are placed at the entrance of the court, and the only air supplied to the inhabitants must pass over their foul contents. But even this miserable state of things can be outdone. There are courts which by a perverted ingenuity have been formed in the following manner:—An ordinary street house has had its lobby converted into a common passage leading to the back yard. The passage is of course roofed over, and is in fact a tunnel, from which the back room of the original house, now converted into a separate dwelling, has its entrance. The back yard has been filled with other houses in such a manner as to have only the continuation of the tunnel for access, and from this little area of three feet wide the houses receive their supply of light and air. The passage is generally terminated by the privy and ashpit common to all the wretched dwellings, with its liquid filth oozing through their walls, and its pestiferous gases flowing into the windows of the last two houses." Mr. Bowring cited Medical evidence to prove that fever was never absent from these buildings. The first to feel the effects of the foul atmosphere were the women and children, and he believed the largest portion of the excessive mortality of the borough was amongst the children.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Mr. Sadler's valuable remarks "On Biniodide of Mercury Ointment" next week.

Winchester.—Presumption and self-sufficiency are vices, but there are worse—viz., discourteous and violent language applied to a member of the Profession, even if a junior.

Damocles.—The enclosure to which our correspondent refers has not been received.

Singular Advertisement.—It will be seen by a letter we publish in another column that the French Medical Students who wrote over here in answer to the advertisement which appeared in the *Gazette des Hôpitaux*, received a prompt reply that most advantageous and well-paid appointments awaited them, but that a necessary preliminary was the transmission of thirty francs.

Poor-law Medical Reform Association.—Mr. Griffin, Weymouth, begs us to state "that the Select Committee on Poor Relief have had three sittings, and it is understood that they have determined not to examine any further witnesses, and are now considering their report." Since March 9, the following subscriptions have been received by him in aid of the funds of the Association:—T. G. Doidge, Launceston, 5s.; Joseph Toynbee, Saville-row, £1; J. A. Ledgard, Wetherby, 5s.; G. Pound, Ash, 5s.; W. Pritchard, East Retford, 10s.; J. T. Barrett, Ashton-under-Lyne, 5s.; H. B. Harris (Watton post mark), 2s. 8d.; W. S. E., 1s.; C. Mott, Chertsey, 10s.; G. Bury, Barnet, 10s.; A. Bennie, St. Thomas's, 2s. 6d.; W. Roe, Barton-upon-Irwell, £1; D. Dorming, Barton-upon-Irwell, £1; H. Adye, Barton-upon-Irwell, 10s.; J. L. Fletcher, Barton-upon-Irwell, 10s.; J. Rogers, Strand, 10s.; T. F. Greenwood, Southwell, 2s. 6d.; F. J. Brown, Rochester, £1 1s.

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The "Curious Advertisement."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your Number of March 12, you inserted an advertisement copied from the *Gazette des Hôpitaux* as follows:—

"Students in medicine of the second and third year, and students in pharmacy, provided with certificates of two years' study, are now wanted in England; they will be paid by their respective Hospitals. Address, post free, to Messrs. Pratt and Sons, 1, Russell-street, Camberwell New-road, London."

I received the following letter from Paris yesterday. As we want no students in this Hospital, the whole thing must be the work of some swindler. I therefore think it right to send the communication to you, to caution your readers. No doubt you will hear more from other quarters; of course I have written to Paris to caution students there.

I am, &c.

D. O. BRIEN, Secretary and House-Surgeon.

Royal Portsmouth, Portsea, and Gosport Hospital, March 20, 1864.

"Monsieur le Directeur de l'Hôpital, Portsmouth, Angleterre.

"Monsieur,—D'après une demande d'étudiants en medicine pour l'Angleterre j'ai écrit a l'adresse indiquée dans cette demande a MM. Pratt and Sons, 1, Russell-street, Camberwell New-road, pour demander à ces messieurs de m'indiquer leurs conditions et la position qui me serait faite.

"'On me répond ainsi (vous me permettez, Monsieur, de prêter les détails des conditions qu'on me faisait et d'arriver tout de suite à la derniere phrase de cette lettre qui est la plus importante pour ce que j'ai à vous demander):—'Si ces conditions vous conviennent, me dit ces veuilles pour vous arriver cette place qui nous est demandé (à Portsmouth) et pour que nous puissons compter sur votre engagement, nous envoyer 30 francs en timbres-poste et dans quelque temps vous recevez un billet de seconde classe pour votre voyage gratis.

"'Signe, pour Mess. Pratt and Son, D. VAVIS.'

"J'ai répondu aussitot le 9 Mars, en envoyant les 30 francs qui m'etaient demandés et beaucoup de mes amis et collègues ont fait comme moi. Depuis je n'ai rien reçu ni billet de seconde classe ni lettre m'accusant reception des 30 francs.

"En conséquence, craignant d'être dupe d'une escroquerie sans exemple, je viens vous prier de vouloir me dire si le fait est vrai et si on a besoin d'étudiant à l'Hôpital de Portsmouth, vous me rendrez service.

"En attendant votre réponse qui me tirera de cette incertitude, daignez agréer l'assurance de mon profond respect,

"PH. MOREAU, Etudiant in Medecine.

"Boulevard St. Germain, No. 38."

The Therapeutic Value of Mercury.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—An article entitled "Hospital Notes," in your number of February 27, on the subject of Mercury in Syphilis, etc., has interested me greatly; and perhaps you will do me the favour to insert a few observations on this subject.

It appears to me that no more important topic could at this moment occupy the attention of the Profession; and I hope that as thorough a discussion upon this matter may be excited as has recently taken place on the question of alcohol.

The writer of "Hospital Notes" has afforded us much valuable information as to the present tenets of some of our most distinguished London Physicians, from which I gather that Dr. Gull never uses mercury either in pericarditis, pleurisy, or in iritis; also that Mr. Cock, Senior Surgeon of Guy's Hospital, in company with the late Dr. Addison, is of opinion that the diseases of bone generally ascribed to syphilis are due rather to the mercury used, or rather abused. Again, that Mr. Dixon says:—"If the ophthalmoscope had done nothing else than limit the wholesale administration of mercury in eye diseases, it would have conferred an enormous boon upon mankind." Also that Dr. K. Chambers says:—"There is no physical agent capable of doing so much harm in albuminuria as mercury." With your permission I beg to add some more evidence against the drug.

Mr. Prescott Hewitt (*Lancet*, February 20, 1864) says:—"Our museums abound in syphilitic, or so-called 'syphilitic' skulls. I say 'so-called syphilitic,' for, as most of these specimens are without any history, it would be difficult to say how far the ravages which we see in these skulls were dependent on syphilis, and how far upon mercurial cachexia." He proceeds to say that formerly such cases were frequently met with, but now that mercury is so sparingly used, they are comparatively rarely met with.

In a pamphlet entitled "A Synopsis of the Different Modes of Treatment employed at the University Hospital of Christiana by Professor Boekh, 1863," the writer, Dr. Bidenkap, after mentioning that mercury has been abandoned in the treatment of venereal diseases for the last ten years in that Hospital, says:—"The very rare cases of tertiary syphilis are met with in patients who have taken a mercurial treatment in other places, especially in foreign parts. Formerly, on the contrary, relapses and obstinate tertiary symptoms formed the majority of the cases treated in the Hospital." We may conclude that the exclusion of mercury from therapeutics has been the cause of it.

Dr. Hughes Bennett ("Principles of Medicine," 1860) says:—"The idea that mercury is a specific for syphilis, and the incalculable mischief it has caused, will form a curious episode in the history of medicine at some future day;" and he asserts that he has never seen even rupia "but in individuals who have been subject to mercurial poisoning." Professor Syme tells us that, without mercury, ulcers of the organs of generation occasionally have secondary symptoms of a mild (though sometimes tedious) character; but that tertiary disease, such as deep ulceration, and bone disease never occur except when the patients have been poisoned by mercury. Mr. Weeden Cooke, in his "Nature and Art in the Cure of Syphilis," says that he has never seen bone disease where a course of mercury had been omitted. Mr. Spencer Wells endorses this expression; and I am informed that Mr. Skey has completely abandoned mercury in the treatment of venereal disease for some years.

Fricke, from 1825 to 1843, treated 15,000 cases of venereal disease in the Hamburgh Hospital, and found the disease, without mercury, a mild and tractable one; whilst, when the drug was used, the most frightful mutilations were seen. Fergusson, Guthrie, Hennen, John Thompson, the French and Swedish Councils of Health, etc., have all repeatedly asserted the same thing—*i.e.*, that mercury makes the disease a formidable one, instead of being a matter easily treated by hygiene and local applications. Professor Boeck tells us, in his "Recherches sur la Syphilis," published last year, that, of the cases of ulcers and secondary symptoms treated by him, those treated without mercury recovered in nearly half the time; and, again, that there were nearly double the number (24:14) of secondary symptoms when ulcers were treated with mercury.

With regard to mercury in iritis, it appears to me that (unless something can be said to the contrary) the experiments of Hugh Carmichael, of H. Williams, of Boston (who, of sixty-four cases of every variety of iritis, had sixty perfect recoveries), of Dr. Hughes Bennett, and recently of Mr. Zachariah Laurence, have shown (1) that the theory of mercury breaking down the lymph is untenable, and (2) that it produces iritis in many cases (*vide* Acton, Travers, etc.), but never has been proved to do any good in any of its varieties. Mr. E. Hart and Mr. J. Hogg do not use it in cases of rheumatic iritis.

Dr. Gull, then, disapproves of mercury in pleurisy, pericarditis, and other chest complaints, in company with Dr. Hughes Bennett, Dr. Habershon, the late Dr. J. Taylor, of University College, and Dr. Walshe (who has never seen mercury do good in any inflammatory disease, but often do harm). Dr. Pollock, indeed, at a recent debate in the Harveian Society, said he believed it was the general opinion of the Profession that mercury was of no service in any internal inflammation, such as pleurisy, pericarditis, or peritonitis.

Symptoms of defection from the mercurial ranks abound. Thus, M. Cullerier and Dr. Fournier lately informed me that they never treat any form of primary sore with mercury, but wait for the eruption. Dr. Diday, of Lyons, goes further than this; for he now talks of a mild syphilis and a grave poison, and gives no mercury for the former, either for the ulcer or the eruption. He also confesses to much damage being done by Ricord and the eclectic school of six months' mercury for indurated sores, and gives cases of eruptions which have been treated without the specific, and without relapses, for as many as sixteen years.

We used to be taught that "so-called" infantile syphilis imperatively demanded the specific. Cases, however, published by myself in the *Medical Times and Gazette*, November, 1862; and, again, fifteen cases published by Mr. Allingham (*Medical Times and Gazette*, October, 1863), in which fourteen recovered (whilst, by the mercurial treatment, nearly 30 per cent. die), have proved that this was but another phase of what Professor Syme calls the "mercurial delusion." The evidence, too, of Hennen, who says that of thirteen children born of parents treated without mercury, eleven were born alive, and none of them had exhibited any symptoms, although some were three years old, would tend to prove that, in most cases, the disease in the children is caused by the poisoning of the parents with the specific; and Bell says that it is believed to cause abortions.

I do hope, Sir, that those eminent members of our Profession who still have great faith in the virtues of mercury will do us the favour to try to disprove, if they can, the value of the evidence given by so many illustrious men.

I am, &c.

CHARLES DRYSDALE, M.D., F.R.C.S. Eng., M.R.C.P. Lond.

Southampton-row, March 1.

Army Medical Department.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In continuation of my letter which, with your usual courtesy and interest in the welfare of the Medical Profession, you were good enough to publish in your issue of the 19th inst., I shall now very briefly bring forward some of the other causes of discontent and dissatisfaction now so widely prevalent among army Medical officers, and which cause the Army Medical Department to be the most unpopular branch of the public service at present.

3. *Relative Rank and consequent Military and Social Status.*—No act of the military authorities has given rise to more annoyance and produced a deeper feeling of injustice in the Army Medical Department than the infringement of the provisions of the Royal Warrant of 1858 on this subject. In clauses 16 and 17 of that Warrant, after definitively settling the relative rank of Medical officers, it is stated that "such relative rank shall carry with it all precedence and advantages attaching to the rank with which it corresponds," etc., etc.; but during the last four years these clauses have been so modified and altered as to deprive army Medical officers of several of the advantages therein conferred.

Army Medical officers have no desire to have the right and consequent responsibility of "military command." They do, however, wish for—and I hope the day is not far distant when they will obtain—that amount of military authority essential to maintaining their proper position in the army and the efficient performance of their responsible Medical duties.

What is that position at present? The army Medical officer has not the authority to place a non-commissioned officer under arrest, or to send a private soldier to the guard-room, no matter what crime these soldiers may commit, even in Hospital! Again, the officers' mess has lately been decided to be a "military parade," and consequently the junior ensign takes precedence of the Surgeon-Major, an officer, it may be, of twenty or twenty-five years' service, and supposed to have the relative rank of lieutenant-colonel; and, as if to humiliate Medical officers still more in public estimation, a Warrant was issued a few months ago, in which it is indirectly stated that the military authorities consider any Medical officer unfit to preside at courts of inquiry, boards, etc., even if the subjects of inquiry were intimately connected with their special duties, and for which they might fairly be considered particularly well qualified, such as the sanitary condition of barracks, Hospitals, etc.

Is it surprising then, under these circumstances, that the service should be avoided by every Medical man of independent mind, and fair professional acquirements, and that the vacancies now existing in the Department are double the number of candidates?

The 17th clause of the Warrant of 1858 alluded to amply provided for the relative rank and military status of army Medical officers, and the restoration of that clause in its integrity would reinstate Medical officers in their proper positions in the service. Why Medical Officers were deprived of this position, solemnly guaranteed to them by H.M. Warrant of 1858, is inexplicable, based as the provisions of that Warrant were on the unanimous recommendation of a royal commission, presided over by a Secretary of State for War, the late Lord Herbert, who will ever be remembered by the British army as the "soldier's friend."

4. *Examination of Assistant-Surgeons before Promotion.*—I cannot join in the opposition to existing regulations on this subject, as I believe they have been attended with advantage to the Medical Department and to the army. I would, however, suggest that the examinations take place on a certain day annually, and that all Assistant-Surgeons of a certain standing, say eight years, be examined, and that branch Surgeoncies or other rewards be conferred on a certain number of the best men of the year. This, without injustice to others, or interfering with departmental promotion by seniority, would be sufficient inducement to Assistant-Surgeons to study their Profession for years prior to the examination, and enable

hem to keep pace with the progress daily making in medicine and the ollateral sciences.

5. *Uniform.*—A large majority of army Medical officers are satisfied with the uniform of their respective ranks, whether regimental or staff, with the exception of the black shoulder belt. This is neither ornamental nor useful, but if retained it would be greatly improved in appearance by the addition of narrow gold bands, the number corresponding with the officer's rank—viz., a gold edge for Assistant-Surgeon on appointment, one band in addition after completion of six years' service, two for Surgeons, and three for Surgeons-Major.

6. *Branding Soldiers.*—A very strong feeling, and very justly, is entertained by army Medical officers against having the duty of superintending the infliction of this punishment imposed on them. That it is requisite and cannot be dispensed with every officer in the service is convinced, but it is inexpedient and unjust to Medical officers to compel them to superintend its infliction. As the operation is but very slightly painful, and neither affects the soldier's health nor prevents him performing his duty, there is no reason why Medical officers should have this duty imposed on them.

I would suggest that this punishment should for the future be inflicted in the guard-room (and not in the Hospital, as hitherto), under the supervision of the captain commanding the soldier's company, and that the Medical officer's sole duty in the matter should be to examine the soldier subsequently, and send in the necessary certificate to the commanding officer.

I have now detailed the more urgent grievances of army Medical officers, and have ventured to suggest the remedies which should be applied for their removal, and it is earnestly hoped that, as their existence cannot any longer be ignored, the authorities will frankly and liberally take the necessary steps to place army Medical officers in a position in the service commensurate with their high Professional character and value to the State, and that will induce candidates of a superior class, both Professionally and socially, to compete for existing and future vacancies.

I am, &c. AN ARMY SURGEON.

SUGGESTIONS FOR AN EFFICIENT REFORM OF THE ARMY MEDICAL DEPARTMENT.

1. The great question to be decided is, whether we are to be placed on a footing with civilians or military men? If relatively with the former, we must be better paid, and be exempt from mess and band subscriptions, and attendance at mess, being considered as honorary members only. If with the military, we must enjoy the full relative advantages, without exception, of our relative rank in all matters and on all occasions where military command is not strictly involved, as at the mess table, boards, committees, etc. To have a voice and vote accordingly, and sit as president where our rank demands it. We pay subscriptions to the mess and band funds according to relative rank; and it must, in fairness, be conceded that our voice and authority should go hand-in-hand with the obligations and the rank. At present, the voice of the junior ensign is more powerful, on many occasions, than the most senior or grey-headed Medical officer's, even in such small matters as to what tune the band shall play, or whether it shall continue or cease to play.

2. That relative rank may be duly recognised, it is essential that the names of all staff officers should be inserted in italics amongst the ranks of the military (as in the case of the adjutant and instructor of musketry) in the "Army List," and, in addition, if deemed necessary, classified separately at the bottom of the "Army List," according to their relative rank, and not as at present, where they are classified according to no rule, paymasters coming first (relative rank, captain or major), instructors of musketry second, adjutants third (the two latter appointments are always held by subalterns), quartermasters fourth (a subaltern, most frequently risen from the ranks), lastly, the Surgeon and his assistants (relative rank of Surgeon, major or lieutenant-colonel; Assistant-Surgeon, lieutenant or captain, according to length of service). At mess and other meetings you are often called upon to vote in this rotation, commencing at the Assistant-Surgeon, and so on through the ranks of ensign, lieutenant, captain, major, and lieutenant-colonel. Such confusion renders it difficult for the quartermaster to assign—say the Assistant-Surgeon—his quarters, according to his seniority in the regiment. The rotation in the "Army List" is taken as a guide in most matters and in all documents. This obnoxious arrangement is not according to the rules of the service in like cases, and conveys on the face of it, particularly to those uninitiated in military matters, the idea of social inferiority.

3. Assistant-Surgeons to be promoted to the rank of Surgeons after ten years' full service pay, in order to quicken promotion.

4. Surgeons-Major to be allowed to retire after twenty years' full service pay, for the same reasons. In March, 1863, there were somewhere about 632 Assistant-Surgeons. From the year 1857 to 1863 there were 112 promotions, or, on an average, 16 a year. The junior, at this rate, would be thirty-nine years without promotion.

5. Assistant-Surgeons, when promoted to the relative rank of captain, after six years' service, should be Gazetted, as in the case of Surgeons, who, after twenty years' service, are Gazetted Surgeons-Major. To distinguish such Assistant-Surgeon from his juniors, he should be called a Junior Surgeon, or First-class Assistant-Surgeon.

6. As the examination of recruits is a very unpleasant and very responsible duty, often performed in addition to ordinary regimental duties, it is nothing but right that the Medical officer should be paid for performing that duty, particularly as all others engaged in the recruiting service, from the adjutant or recruiting-officer to the bringer, are paid, and more particularly still, as the Medical officer is the one who is visited most severely with pecuniary punishment when a recruit is rejected after passing through his hands. Pecuniary responsibility generally involves pecuniary reward.

7. To place Medical officers of cavalry and artillery on a footing with those of infantry and the staff with regard to pay, additional pay being given them for the keep of one or more horses, upon the principle that the price of commissions in the cavalry and infantry, while being the same, the pay of the cavalry is much greater.

8. The branding of prisoners not to be performed in Hospital, but on a regimental parade, the Medical officer attending.

9. A Warrant to be issued, and the Queen's Regulations amended accordingly, embracing the above advantages, and not hereafter to be tampered with.

There may be other minor matters which might be rectified hereafter, but the great stumbling-blocks being removed, the rest would soon follow, and no lack of good candidates, that the service need not be ashamed of, would be wanting to fill its ranks. To prevent references and disputes, military command to be strictly defined. I am, &c. TRUTH.

COMMUNICATIONS have been received from—

HARVEIAN SOCIETY OF LONDON; Mr. W. CARR; Dr. JAMES DONNET; Dr. J. N. HEALE; Mr. HENRY THOMPSON; ROYAL COLLEGE OF PHYSICIANS.

BOOKS RECEIVED.

Journal of the Scottish Meteorological Society. January, 1864. Edinburgh: Blackwood and Sons.

*** The Council have determined to issue the proceedings of this Society in a quarterly form. They hope thus to gain information as to climate, public health, diseases affecting live stock or crops, and storms. The current Number contains Weekly Extreme Temperatures; the Isothermals of Great Britain and Ireland; with a paper, by Dr. Scoresby Jackson, on the Importance of Medical Climatology.

Insanity and Crime: A Medico-Legal Commentary on the Case of George V. Townley. By the Editors of the *Journal of Mental Science.* London: John Churchill and Sons. 1864.

Young England: a Magazine for the Instruction and Amusement of the Educated Youth of the British Empire. January, 1864. London: W. Tweedie.

A Dictionary of Chemistry and the Allied Branches of other Sciences. By Henry Watts, B.A., F.C.S. Part XI. Fluorine—Gallotannic Acid. Part XII. Galls—Glucose. London: Longman, Green, Longman, and Co.

Archiv des Vereins für wissenschaftliche Heilkunde. 1864. No. I. Leipzig: Ludwig Denicke.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 19, 1864.

BIRTHS.

Births of Boys, 1117; Girls, 1060; Total, 2177.
Average of 10 corresponding weeks, 1854-63, 1881·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	743	765	1508
Average of the ten years 1854-63	681·5	649·0	1330·5
Average corrected to increased population..	..	..	1464
Deaths of people above 90	..	1	1

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,338	..	..	5	3	7	4	2
North ..	618,210	5	5	3	3	10	17	1
Central ..	378,058	2	2	3	..	5	7	..
East ..	571,158	1	5	12	3	19	13	2
South ..	778,175	2	13	13	2	22	17	6
Total ..	2,803,989	10	25	41	11	63	58.	11

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·809 in.
Mean temperature	43
Highest point of thermometer	57·2
Lowest point of thermometer	29·9
Mean dew-point temperature	35·9
General direction of wind	S.W. & E.
Whole amount of rain in the week	0·06 in.

APPOINTMENTS FOR THE WEEK.

March 26. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

28. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr. E. Symes Thompson, "On Indigestion in Early Phthisis."

29. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, 8 p.m. Dr. Grailly Hewitt, "Clinical Conference in Midwifery."

30. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m., Middlesex, 1 p.m.; London, 2 p.m.

31. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m., Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.

April 1. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Meeting of the Council.

WESTERN MEDICAL AND SURGICAL SOCIETY, 8 p.m. Mr. Vasey, "On the Management of Children's Teeth."

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Dr. **LANKESTER, F.R.S.**, late Lecturer on the Practice of Medicine, St. George's School of Medicine:—"I consider that the purity and genuineness of this Oil are secured in its preparation by the personal attention of so good a Chemist and intelligent a Physician as Dr. de Jongh, who has also written the best Medical Treatise on the Oil with which I am acquainted. Hence I deem the Cod-liver Oil sold under his guarantee to be preferable to any other kind as regards genuineness and medicinal efficacy."

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Extract of Letter from ALFRED ASPLAND, Esq., F.R.C.S. Eng., J. P. Chester and Lancaster, Surgeon 4th Cheshire Batt. V.R., Surgeon to the Ashton Infirmary.—"After an extensive trial of your Chlorodyne in Hospital, Infirmary, and Private Practice, I am able to state that it is a valuable medicine. I have found its action peculiarly serviceable in Bronchial, Spasmodic, and Neuralgic Affections. I have never found it produce headache or feverish disturbance, results which not unfrequently occur from other forms of Chlorodyne. As a sedative to allay excitement arising from the abuse of intoxicating drinks, so commonly witnessed in our Barrack Hospital, I have been perfectly satisfied with it. Its known composition will doubtless prove an additional recommendation to the Profession.—To Mr. A. P. Towle."

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Proprietor—A. P. TOWLE, 99, STOCKPORT-ROAD, MANCHESTER.

To the Surgical and Medical Professions.—W. F. Durroch, Manufacturer of Surgical Instruments to the Royal Navy, Greenwich Hospital, Guy's Hospital, &c., &c., begs to inform the Profession that he continues to manufacture SURGICAL INSTRUMENTS of every description, and that he has attained the highest reputation by the approval and patronage of the most eminent Practitioners and Lecturers for the improvements made in various articles. Gentlemen favouring him with their orders may rely on having their Instruments finished in the best and most modern style. Surgical Instruments made to Drawings and kept in repair. Established 1798.

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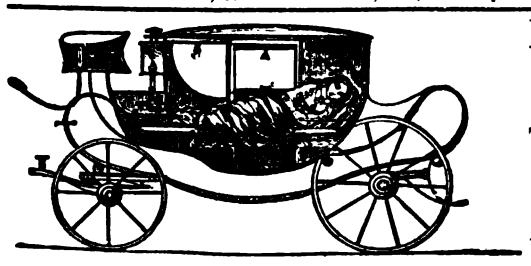

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ORIGINAL LECTURES.

LECTURES ON THE BRITISH PHARMACOPŒIA: ITS CONSTRUCTION, ITS COMPARISON WITH THE LONDON PHARMACOPŒIA, AND THE VALUE OF ITS NEW REMEDIES IN THE TREATMENT OF DISEASE.

DELIVERED AT

The Royal College of Physicians,

By A. B. GARROD, M.D., F.R.S.,

Fellow of the Royal College of Physicians; Physician to King's College Hospital.

LECTURE V.,(a) FEBRUARY 9.

(Continued from page 334.)

Having completed my remarks on the medicinal substances newly introduced into the Materia Medica, or first part of the Pharmacopœia, I will now draw your attention for a short time to the consideration of the second part, which contains their Preparations and Compounds.

Differing from all the Pharmacopœias hitherto published in Great Britain, it will be found that throughout the second part of the work a strictly alphabetical arrangement has been adopted. There is no attempt at grouping the preparations under the head of alkaline, ethereal, metallic, and other compounds; but still this very alphabetical arrangement necessarily implies that all the important Galenical preparations shall come together. This arrangement is extremely convenient, and gives greater uniformity to the work.

In the British Pharmacopœia there will be found processes for the preparation of almost every chemical substance contained in the first part, as likewise of all Galenical or pharmaceutic compounds. In this respect the present work differs much from that of the London College. The object of this College, more especially in the last edition of its Pharmacopœia, was to omit the processes for the preparation of such chemicals as could be readily procured, giving only methods for making substances which it was considered important should be obtained in a state of purity, and which were not always procurable, and hence the edition of 1851 contained far fewer processes than that of 1836. It is the opinion of many that all such processes should be omitted from a Pharmacopœia, that they should be entrusted to the chemist alone, but that tests for ascertaining their purity should be inserted. It was, however, ruled in the Committee that processes for the preparation of all chemical substances should be introduced unless in any instance a good reason could be given for the omission, and hence only very few are omitted, as, for example, that for preparing commercial oil of vitriol, carbonate of soda, and so forth, substances which can only be made on a large scale. The introduction of the processes has its advantages and disadvantages. One of the advantages consists in the propagation of a certain amount of knowledge of chemistry among a large class both of the Medical Profession and druggists, as the Pharmacopœia is often looked upon as a text-book, and the complete understanding of its contents a matter of necessity.

On the other hand, the introduction of these processes adds much to the bulk of the work, besides which it cannot be expected that manufacturers will always adhere to the directions therein contained; each following peculiar methods, especially in the details, which he often keeps more or less secret. The only point required to be secured in the manufacture of chemical substances is their purity or fitness for medicinal administration, and a complete set of tests for each article would ensure this. I believe it will be found that, taken altogether, the processes in the British Pharmacopœia are good; doubtless many improvements could be suggested, but it does not follow, as some are apt to suppose, that because they may in some respect differ from their own, they are therefore necessarily faulty.

I have already seen and heard many objections to individual processes; for example, to those given for aconitia and the citrate of iron and quinine, but I may, perhaps, in answer to such objections, state that the process for aconitia was kindly supplied by a maker of this alkaloid on a very large scale; and that for the citrate of iron and quinine by a firm which stands among the highest for the manufacture of that salt. The object of the Committee has been to give processes by which each chemical drug can be made, not the one to be necessarily adopted in its manufacture. If the result be the same, as far the quality or purity of the drug is concerned, the mode of making it cannot be of consequence.

I shall not attempt (as it would be quite out of place in these lectures) to make any remarks on the chemical processes of the Pharmacopœia, but I will give a rapid sketch of the various pharmaceutic groups, and of the alterations and additions which have been made to them.

In the *Aquæ* or *Waters* of the London Pharmacopœia no great change will be found. Our old Mistura Camphoræ is there as Aqua Camphoræ, and no one, I think, who considers the nature of the preparation will object to the change. I have already had occasion to refer to Aqua Laurocerasi when speaking of the introduction of laurel leaves into the Materia Medica.

I have nothing to remark on the *Cataplasms*, and I may observe that the group of *Vinegars* is altogether abolished, as well as that of the *Cerates*. One vinegar, that of Cantharides, is now placed in a modified form under the Liniments, and some of the cerates are now found among the Ointments.

Several *Confections* have been discarded, as Confectio aurantii, Confectio cassiæ, Confectio opii, Confectio Rutæ; two new confections have been added—namely, of Sulphur and Turpentine. The almond as well as the aromatic confection will be found under the heads of Pulvis Amygdalæ Compositus and Pulvis Cretæ Aromaticus. The turpentine confection is, I am informed by one of the committee, who has used and taken it largely, a valuable and not unpleasant form of administering this somewhat nauseous medicine.

There are some alterations among the *Decoctions* worthy of passing notice. Decoctum Amyli is now termed Mucilago Amyli. Chimaphila and Cydonium have been omitted from the list, and, therefore, their decoctions from the group. Decoctum Cinchonæ, Pallidæ, and Rubræ have been discarded; that of the Yellow Bark only retained. Decoctum Dulcamaræ and D. Senegæ, D. Uvæ Ursi, substituted by Infusions of the three drugs; and, lastly, decoctions of Gall nuts, Pomegranate fruit, Tormentilla, and Elm root omitted, the latter evidently by error. The Compound Decoction of Barley is also left out.

Among the *Plasters* you will notice the absence of Emplastrum Ammoniaci, Emplastrum Cumini, Emplastrum Potassii Iodidi. And in addition to the Plasters of the London Pharmacopœia you will observe Emplastrum Calefaciens. Emplastrum Plumbi is now called Emplastrum Lithargyri.

In the *Enemata* the changes are the omission of Enema Colocynthidis and the addition of Enema Magnesiæ Sulphatis.

We have next to notice the group of *Extracts*, in which extensive and important alterations have been effected. In the manufacture of what are termed the "Green Extracts," care has been taken to remove the albumen contained in the juices, and by this means their liability to decomposition is prevented; if you examine the manner in which these extracts are ordered to be made, you will see that the freshness of colour is not necessarily a proof that a low temperature has been employed; for the green colouring matter or chlorophyle is first coagulated by the application of a heat of 130° to the juice, then removed by filtration, and only again added at the end of the process. Among the omissions in this group are the Extracts of Pale and Red Cinchona Bark, Lettuce, Poppy, and Uva Ursi. Among the additions are Extract of Camomile, Extract of Bark, Extract of Calumbo, Extract of Indian Hemp, Extract of Ergot, Extract of Male Fern, Extract of Rhatany, and Extract of Quassia; and also some liquid extracts in lieu of, or in addition to, solid extracts of certain drugs. It may be well to speak a few words upon some of these changes.

Extract of Elaterium, the name of which has so often been complained of, is now placed in the list of the Materia Medica, and called simply Elaterium.

The name of the Compound Extract of Colocynth has been restored. You probably will remember that in the London Pharmacopœia of 1851 it was termed Compound Colocynth Pill, but even to the present day more commonly prescribed under its old designation of Compound Extract.

(a) Portions, especially of the latter part, of this Lecture were not delivered from want of time.

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Extract of Jalap has been somewhat altered. Formerly the tubers were exhausted by rectified spirit, and afterwards by boiling water. In the British Pharmacopœia, maceration in cold water is employed as a substitute for boiling the tubers; and thus a large amount of starchy matters are left behind. The product is consequently much smaller, and the activity greater; for I may observe that I have made several trials of the spirit extract, the cold-water extract, and, lastly, of the extract prepared by boiling the residue in water, and have found that the first is active as a purgative, but the cold-water and boiling-water extracts are inert; the only advantage, therefore, of the Extract of Jalap over the Resin is in its consistence, which renders it more adapted for the making of pills.

It will be seen that several liquid extracts have been introduced—for example, in place of the ordinary Extract of Yellow Cinchona Bark, a liquid preparation has been substituted, which closely resembles the inspissated infusion of the same drug of the London Colleges. If we look at the quantity of bark made use of, and compare it with the product, we find that there are sixteen ounces of bark to four fluid ounces of the extract. We must not, however, imagine for one moment that one fluid part by measure represents, as far as the alkaloids are concerned, four solid parts of the bark; for it has been proved that the refuse bark left after the operation is still very rich in quinine, and to the manufacturer of that alkaloid of considerable value. This is owing to the extreme difficulty of extracting the quinine from the bark; and the maceration and percolation of the process are quite unable to effect the exhaustion.

The Liquid Extract of Ergot is a preparation worthy of notice. Formerly it was thought that the oily matter which exist in such large amounts in the ergot was the active portion. This, however, has been disproved; and in making the liquid extract the oily matter is first removed by ether, and a watery solution is then made; and afterwards evaporated; a little spirit is finally added; and the total result is a liquid extract, in which the active matter of one solid part of ergot is contained in each fluid part of the preparation.

Many eminent Physicians, especially those engaged in the treatment of affections demanding the use of this remedy, have made trial of the liquid extract of ergot, and I understand that all agree in considering it a very convenient and valuable preparation of the drug.

There is likewise a liquid extract of opium, containing one part of the solid watery extract in twenty fluid parts, and supposed to be of about the same strength as the tincture of opium, but devoid of certain matters contained in opium, which are not soluble in cold water. It will probably be a substitute for the so-called sedative solution.

A most convenient form for administering Pareira will likewise be found in the Pharmacopœia—an agreeable substitute for the decoction. In this liquid extract one part of the root is employed in the production of one fluid part of the preparation; it is termed Extractum Pareiræ Liquidum, and I am informed by some eminent Surgeons that it possesses all the valuable properties of the plant, and can be given with great advantage in many cases in which the bladder is in a chronic state of inflammation. The new extracts of chamomile, columbo, rhatany, and quassia may at times be found serviceable when we desire to give these medicines in a solid and concentrated form.

In the group of *Infusions* there are points to comment upon. Some of these preparations are made for the first time with cold in lieu of boiling water; for example, infusion of columbo; the advantage here consists in the infusion not containing the starchy matters so liable to speedy changes; cold water is likewise made use of in making the infusion of quassia; and water at the temperature of 120° in the infusion of chiretta and cussparia; for the remainder boiling water is employed.

There are also certain omissions and additions. Amongst the former, that of infusion of horseradish, pale cinchona bark, simple and inspissated; the concentrated infusion of yellow bark being transferred to the liquid extracts. The additions are infusions of chiretta, kousso, dulcamara, ergot, matico, and senega; with the exception of the infusion of orange peel, which is still termed compound, this affix has been omitted; but the former compound infusion of roses is called an acid infusion. Throughout the different pharmaceutic groups you will observe the frequent omission of the word compound, and the rule has been not so to designate a preparation unless it contains more than one real medicinal agent; substances which are merely introduced to give flavour or odour, or to suspend insoluble ingredients, not being looked upon in that light.

I have alluded to the substitution of an Infusion of Dulcamara in place of the decoction. Of the reason for this change I am not aware, as even when boiled in water Dulcamara does not yield any very active ingredient. Some years since I gave the decoction in large amounts to a girl who had long suffered from severe psoriasis, and she soon became well, or all but cured. After three years she returned to the Hospital covered with the eruption. The medicine was again given in similar doses, but failed to give relief; and doubtless the disease in the first instance had worn itself out, having been long treated with powerful drugs. I have administered as much as sixty fluid ounces of the decoction during the day, reduced to a smaller bulk by evaporation, and still no physiological symptoms were induced; and to show that even the fruit of the Dulcamara, or bitter sweet, does not possess the poisonous properties often attributed to it, I may state that I have seen five pounds of the ripe berries taken in a space of ten days in the form of a preserve or confection, and still no symptoms followed.

(To be continued.)

THE OPTICAL DEFECTS OF THE EYE.

A COURSE OF LECTURES DELIVERED DURING THE SUMMER OF 1862 AT THE

Surrey Ophthalmic Hospital,

By J. ZACHARIAH LAURENCE, F.R.C.S., M.B. Univ. Lond.,

Surgeon to the Hospital.

Part I.—Optical Considerations.

Gentlemen,—In the present course of lectures I propose laying before you an account of those defects of vision which depend either upon a misformation or a perversion of function of the optical structures of the eye. Up to a comparatively recent period the pathological deviations of the refractive and accommodative powers of the eye were, from the want of any system in their discrimination, involved in such hopeless confusion, that the determination of the glasses requisite for their correction became unsatisfactory and empirical in the last degree; the error having been that most ophthalmic Surgeons rested satisfied with but a superficial knowledge of optics, whilst opticians regarded the eye rather as a production of their workshops requiring some correction, than as a structure of the human body, endowed with all the attributes of vitality. I shall, therefore, not conceive the time ill-spent, if we confine our attention, in the first instance, to optics considered as a pure science,(a) altogether independently of the applications we shall hereafter have to make of our knowledge thus acquired. To attempt to understand the optical construction and defects of the eye without such a previous knowledge, is simply impossible; and it is to the absence of any such preliminary information that I am led to ascribe the unintelligible character which most of the communications hitherto published on this subject have possessed for the Profession at large.

The eye is, in its most important relations, essentially an optical instrument, through whose medium we take cognisance of the most obvious and necessary events of the external world. This, in its turn, becomes the subject of our visual observation by that physical force which we understand by the term "light." Light is one of those agents of nature the existence of which is inferred from its effects, just as that of heat, electricity, mechanical or vital force is inferred from their effects. The effect of light which principally concerns us is that which it exercises on the retina; but photography, magnetism, vegetation all demonstrate the existence of light as a perfectly independent physical agent. In other words, supposing all the world were blind, still, light would exist, even in its purely optical sense: it would still be reflected, refracted, polarised, although we should be unable to recognise any such effects. Some of the bodies of nature are, in themselves, sources of

(a) In the course as actually delivered by me, *all* the leading phenomena of optical science, as the laws of reflection and refraction, etc., were fully discussed; but as these subjects are but imperfectly intelligible without such experimental illustrations as I then produced, I have omitted them in the lecture, as now published, proceeding at once to the consideration of optical lenses, which constitute the most essential elementary knowledge for the due comprehension of the physiological and pathological optics of the eye.

light—*self-luminous*—such as the sun, the stars, bodies in a state of ignition. On the other hand, the great majority of bodies are not self-luminous, but derive their luminosity from reflected light, which itself is, in the first instance, derived from self-luminous bodies. Thus, the objects in a perfectly dark chamber only become visible by the introduction of a light; extinguish this latter, and they are no longer seen.

For the sake of precision in the investigation of the laws of the propagation of light through space, it is necessary to consider all luminous bodies as composed of an infinite number of infinitely small luminous points, each of these points to give off, in all possible directions—radiate—an infinite number of straight lines of light of extreme tenuity. These lines of light are individually called *rays* of light, whilst the combined bundle of rays which emanate from, or converge to, a luminous point is called a *pencil* of rays.(b) If the component rays of a pencil of light, in their onward progress from their initial source—the luminous point—separate further and further from

Fig. 1.

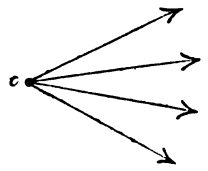


Fig. 2.

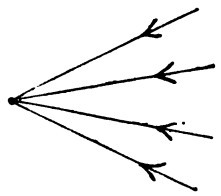


Fig. 3.

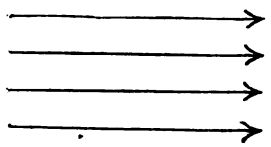
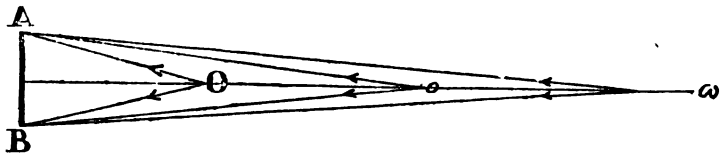


Fig. 1.—Divergent Pencil
" 2.—Convergent " } *o*, luminous point, or *focus*.
" 3.—Parallel "

Fig. 4.



each other, then we have before us a *divergent* pencil (Fig. 1); if, on the other hand, the rays approach each other closer and closer as they proceed onwards to a point, then we have a *convergent* pencil (Fig. 2); whilst, lastly, if the rays of a pencil neither diverge nor converge in their onward course, we have a *parallel* pencil (Fig. 3). A luminous point is termed, in the language of optics, a *focus* of rays, or, shortly, a *focus*.

As an illustration of divergent and convergent pencils, the case of the flame of a candle before which a convex lens is held may be taken. The rays of light diverge *from* the constituent luminous points of the flame, and are converged *to* as many points again by the lens, as we shall discuss fully at a later period of these lectures. From what has been before said, it may be inferred that all luminous bodies emit their rays of light in the form of divergent pencils. If a luminous point (*O*) (Fig. 4) be at a certain distance from a recipient surface, *AB* (the pupil of the eye, *e.g.*), any two divergent rays form some angle, as *AOB*, with each other; if the luminous point (*o*) be further off, the angle, as *AoB*, will be less; if still further off, the angle, as *Aω B*, still less; and so on. This fact is obvious to the eye from a mere inspection of Fig. 4; but it is also geometrically demonstrable (Euclid i., 21). Following up the same reasoning, if we suppose the luminous point infinitely far off, any two proximate rays will form no angle at all with one another—will be, in a word, *parallel*, it being in all cases understood that the surface on which the rays of light impinge is of limited extent in comparison with its distance from the luminous point. Thus, if a candle flame is, say, twenty feet from us, the rays of light from each luminous point which strike the area of the pupil of the eye form practically parallel pencils, and, *à fortiore*, in ascending progression, those which strike the pupil from a lighthouse, from the sun, from the fixed stars. But if the recipient surface on which the rays of light from a candle flame fall be, say, a large target, from the lighthouse a large extent of the ocean, from the sun the earth, from the fixed stars the entirety of space, we may, in the first two instances certainly, in the two latter not unreasonably, assume that the pencils of rays are of divergent character in regard to the magnitude of the surfaces on which they fall. Strictly speaking, then, no such rays as parallel rays exist in nature; but for the recipient surfaces we shall have to deal with our eyes, lenses, reflectors, etc., we may practically regard all rays of light which proceed from near objects as divergent, those from distant ones as parallel,(c) whilst convergent rays are not to be found in nature at all, but may be produced by certain optical means, of which we shall soon come to speak.

What evidence have we of all the above assumptions? Their truth is inferred from the fact that the great majority of optical phenomena are only deducible from such assumptions, and that the laws of optics hence deduced have led by a chain of inferences, not only to the explanation of more complex phenomena, but have served as the land-marks to the investigation of, up to the time, unknown fields of discovery in optical science. Two different theories have been advanced of the more intimate nature of light. The Newtonian (corpuscular) conceives each luminous point to be constantly giving off a succession of luminous corpuscles, which follow each other in uninterrupted succession on an imaginary axis, like a string of beads coursing along a rigid thread. The undulatory theory, on the other hand, considers space as pervaded by a subtle gaseous fluid or ether; that luminous bodies have the power of communicating to this ether a wave-motion, which affects the retina, just as the undulations of the atmosphere from vibrating bodies affect the auditory nerve, or, to take a ruder simile, as the waves of the ocean impart their movements to the vessel that rides on them. The undulatory theory is of far wider significance, however, than its mere physiological application. Sir John Herschel, speaking of it, says, "It is a theory which, if not founded in nature, is certainly one of the happiest fictions that the genius of man has yet invented to group together natural phenomena, as well as the most fortunate in the support it has received from all classes of new phenomena, which at their discovery seemed in irreconcileable opposition to it. It is, in fact, in all its applications and details, one succession of *felicities*, inasmuch that we may almost be induced to say, 'If it be not true, it deserves to be.'"

(To be continued.)

Professor Owen, F.R.S.—This distinguished physiologist had the honour of delivering before the Queen and Royal family, on the 29th ult., the first of a course of four lectures "On Natural History."

The Dental Profession.—The anniversary dinner of —as they now term themselves—"Licentiates in Dental Surgery" was held at Willis's Rooms a few days ago, when the chairman, Mr. Lawrence, a member of the Board of Examiners in Dental Surgery of the Royal College of Surgeons, made the following statement, which no doubt will create great surprise among the members of that College: —On proposing the toast of "The Degree of Licentiates in Dental Surgery," he said, speaking of the curriculum and examination which future candidates will have to go through: —"Well, if they undergo that examination, why are they not to be members of the College of Surgeons in the same way as those of their brethren who have undergone the usual examination for the membership? That is a question I cannot answer. I do not see any reason why they should not. *My opinion is that they will be absolutely better informed.*" Again, speaking of Dental Surgeons, he added:—"The word 'dental' is only an adjective. Therefore, I cannot see how they (the College of Surgeons) can refuse giving them all the rights, privileges, and immunities that belong to the other members. (Hear, hear.) I hope you will soon acquire those rights."

(b) We may obtain an approximate concrete idea of a "ray" of light by allowing the light from the sun to pass into a dark chamber through the minutest possible hole drilled in a thin plate of metal; enlarge this hole, and several rays, constituting a "pencil" of light, will enter the chamber.

(c) Another view of the subject is, that in the latter case only the axe of the pencils and the rays in the immediate proximity of these axe (practically parallel to them) strike "our eyes, lenses, reflectors, etc."

ORIGINAL COMMUNICATIONS.

ON TRICHINA DISEASE: ITS PREVENTION AND CURE.

By JULIUS ALTHAUS, M.D., M.R.C.P.
Physician to the Royal Infirmary for Diseases of the Chest.

The discovery of trichina disease, or trichiniasis—no doubt the most important Medical event of the last few years—affords a happy illustration of the close connexion that exists between the several branches of Medical and natural science, since the concurrence of zoology, experimental physiology, pathological anatomy, and clinical Medicine, working for one common purpose, was indispensable to enable us to arrive at a complete knowledge of the remarkable and interesting phenomena included under the above heading. I intend in the following paper to give a concise account of the subject in its principal bearings, and shall therein follow chiefly the researches and writings of Virchow, (a) Vogel, and Leuckart, (b) and Mosler. (c)

Trichinæ were first discovered in England, where, in 1832, Mr. Hilton noticed, in the human subject, the cysts in which trichinæ are generally found enclosed, and which appear to the naked eye as small white corpuscles. Mr. Hilton believed these corpuscles to be animal formations, but he did not perceive the worms contained in them. In 1835 Professor Owen discovered the nematoid worm enclosed in the cyst, and called it *trichina spiralis*, on account of its resembling a hair in its minute filiform size and its being coiled up into spiral turns. This name has been generally accepted by zoologists, and it is only quite recently that M. Davaine, the author of a well-known treatise on entozoa, has proposed a different name for it—viz., Pseudalius Trichina. (d) The only reason that can be given for this innovation is, that the tail of those trichinæ which are found in the human intestines is divided in two horns or cones, and that the same peculiarity exists in pseudalius Duj.; but in every other respect the structure of trichina entirely differs from that of pseudalius, the former worm being in fact far more closely allied to trichocephalus and trichosomum, from which latter it is only distinguished by its size and a different structure of the genital organs. It is therefore by no means probable that M. Davaine's innovation will find favour with zoologists, as it would only lead to confusion; and no doubt the worm in question will always be called by the name first given it by Professor Owen.

Fig. 1.

Fig. 2.

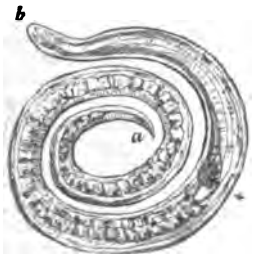


Fig. 2.—Female trichina from the muscle of a man; the cyst is removed, but the spiral turns are preserved. a is the head, b the tail. The alimentary canal begins at a; its structure is cellular, and it fills up the whole of the inner part of the body from a till †, while from † to b it is reduced in thickness.

Since its discovery in 1835, trichina has been frequently noticed, more especially by German and English anatomists. In the anatomy rooms of the Universities of Berlin and Edinburgh trichinæ have been found in 2 or 3 per cent. of the subjects dissected. They were also noticed by several observers in Denmark, France, and the United States. The animals in which they have been found are the cat, the crow, the jackdaw, the hawk, the mole, and the pig; it is, however, not yet settled whether some of the worms found in the former of these animals do not rather belong to a different species—viz., trichina affinis. It was, however, only in 1860 that more minute investigations concerning the nature and development of trichina were undertaken, and Professors Virchow and Leuckart, who worked independently of one another, simultaneously came to nearly the same conclusions as regards the natural history of the worm. Zenker was the first to find, in a girl who had died at Dresden, numerous trichinæ in the striated muscles, and to recognise the parasite as cause of the illness and death of the patient. In the spring of 1862, about thirty cases of trichina disease occurred in Plauen, in Saxony. In some patients small pieces of muscular tissue were excised and examined by the microscope, and thus, for the first time, the diagnosis of trichina disease was made in the living subject. Since then numerous cases of it have been observed, especially in the kingdom of Saxony and the Prussian province of Saxony, as in Magdeburg, Leipzig, Eisleben, etc. From the end of October to the middle of December, 1863, there was a true epidemic of this disease in Hettstedt, near Eisleben, in which 150 persons were affected, and 24 of them died. It is, however, not probable that the disease is confined to the districts just mentioned, as no doubt many cases of it have occurred elsewhere, but have not been recognised as such by the Medical Practitioners. A striking instance of this kind may be given. In 1863 Professor Langenbeck, of Berlin, excised a tumour which had grown on the neck of a man. During the operation he noticed that the muscles which were laid bare contained a number of encysted trichinæ. The patient being questioned whether he had not at one time or another been affected with a remarkable illness, related the following history:—In 1845 a committee, consisting of eight gentlemen, were occupied with the inspection of schools in Saxony. On one occasion they dined together at an inn, and partook, amongst other dishes, of ham and sausages. One of them, however, went away without having taken anything but a glass of claret. The other seven—amongst them the man who related the history—drank hock, and ate of the dishes mentioned. They all fell ill, and four of them died. Suspicion fell upon the meal and the host. The wine that had been drunk was analysed; no poison was found, but the host continued to be suspected, and was at last obliged to emigrate. (e) No doubt suspicion of poisoning may frequently have attached to innocent persons, who had unwittingly provided a meal with dishes containing trichinæ. Several cases of a similar kind have been related by Dr. Husemann. (f)

All observations made on human trichinæ until 1860 concerned such cases only in which the trichina disease had healed, that is, in which the worm had been seen in the encysted, not in the free state. We now know that, at least, two months are necessary for the production of a complete cyst, and that men or animals, which live so long that the trichinæ existing in them may become encysted, are likely to survive the disease. Before this was known the opinion, therefore, gradually gained ground that trichina was a harmless animal, and more a curiosity than a source of danger. On this account the Practitioners and clinical observers took no further interest in the worm, which was left to the care of zoologists and anatomists. In a purely scientific point of view, however, trichina soon proved to be a problem of surpassing interest, as nobody knew whence it came, nor how it could migrate into the flesh of living men, nor how it was generated, for no organs of generation, no ova, no progeny had been found. It is, therefore, scarcely surprising that even good observers resorted to the old hypothesis of spontaneous or equivocal generation in order to explain the origin of trichina. Thus, Dr. Bristowe and Mr. Rainey believed that trichina was generated from fat formed between the muscular fibres, and that the nuclei, which became visible after the fat had gradually vanished, played an important part in those intermediate changes which occurred between the appearance of the animal and the disappearance of the fat! (g)

In many respects trichina resembles cysticercus, which is most frequently found in pigs, but is by no means rare in man. It is true that cysticercus is larger than trichina, for while the former has the size of a pea, or even of a small cherry or bean, the latter appears only as a little white speck, even if the cysts are taken together with the animal. On the other hand, however, cysticercus is, just as trichina, destitute of organs of generation and of ova; it often occurs in large numbers, and it is also found in the flesh. We know that cysticercus cellulosæ is the larval state of tænia solium; that, in fact, the same worm lives for some time as cysticercus, and is afterwards

(a) R. Virchow, "Darstellung der Lehre von den Trichinen." Berlin. 1864.
(b) J. Vogel, "Die Trichinenkrankheit und deren Bekämpfung. Mit einem Anhang von Professor R. Leuckart, "Archiv. des vereins für wissenschaftliche Heilkunde." Leipzig. 1864. Messrs. Denicke, the publishers of the above, have also published a "*Trichinen Spiegel*" (Trichinoscopy), showing on a large sheet all the interesting points in the structure and development of trichinæ, for popular instruction; and have placed their cuts at our disposal with a politeness and liberality for which we return our best thanks.
(c) F. Mosler, "Helminthologische Studien und Beobachtungen." Berlin. 1864.
(d) *Gazette Medicale de Paris.* 1863. 4—11.
(e) Virchow, *l. c.*, p. 40.
(f) *Deutsche Klinik*, No. 8-10. Berlin. 1864.
(g) *Transactions* of the Pathological Society of London, 1854, pp. 293-94.

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changed into tænia; that tænia produces not only ova, but also living progeny, which first become cysticerci, and afterwards are again metamorphosed into tæniæ. These facts, which went far to render the theory of spontaneous generation untenable, soon led zoologists to inquire whether or not similar processes might take place with regard to trichina. Virchow was the first who succeeded in showing, by experiments, the existence of alternate generation in trichina.(h) He fed a dog with *encysted*, but still living, trichinæ, taken from a man, and found, four days afterwards, numerous *free* trichinæ in the intestines of the dog. These animals were seen to possess sexual organs, containing ova and spermatozoa. He also showed, that the cyst in which the animals are enclosed, when found in muscles is nothing but a changed muscular fibre; and it thus became evident that the animals did indeed penetrate from without into the structural elements of muscles. These and other experiments of Virchow, which were confirmed by those of Leuckart, Claus, and others, have led to the conclusions, *that there exists alternate generation for trichinaas it does for cysticercus; that if animals are fed with trichinæ taken from the muscles, intestinal trichinæ are formed, which produce ova and living progeny; that these latter, without leaving the animal in which they have been generated, immediately penetrate the coats of the intestines and migrate into the body, more especially into the striated muscles, where, unless the animal in which they are contained should previously die, they are, after a time, encysted, and wait for the moment when they may be eaten by another man or animal, to undergo the same changes as before.*

It thus appears that the danger which may accrue to man from trichina is far greater than that with which he is threatened by cysticercus and tænia. While the latter require to be eaten on two several occasions, the former only requires to be eaten *once* in order to produce a progeny which infects the whole system. Moreover, cysticercus and tænia scarcely ever cause a fatal result, while even within the last three years a large number of deaths is known to have been brought about by trichina. A knowledge of the nature of the worm, of the symptoms of trichina disease, of the way in which this is brought about, and of the means by which we may hope to prevent or cure it, is, therefore, of considerable importance for the Medical Practitioner.

If men or animals have eaten meat infected with trichinæ, this is dissolved by the gastric juice, and the trichinæ become freed from their cysts. With a magnifying power of 300 m.d., we are then able to distinguish their alimentary canal, which begins at the somewhat sharp anterior extremity of the animal; it is at first a narrow tube, but soon widens and appears as a broad cellular body, which fills up more than one-half of the whole length of the animal, while at its posterior third the tube again becomes narrow, and at last opens outside at the posterior extremity. When once in the stomach and freed from their cysts, the trichinæ awake from the torpor in which they were held previously. They begin to move about; they lose their spiral figure, and become stretched, so as to appear somewhat similar to ascarides. They soon grow rapidly, so that while a trichina musculorum is only from two-fifths to three-fifths of a millimeter long, the trichina intestini is no less than from one to three millimeters long. At the same time, generative organs are developed.

Fig. 3.

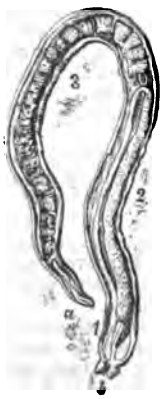


Fig. 3.—Magnifying power, 200.

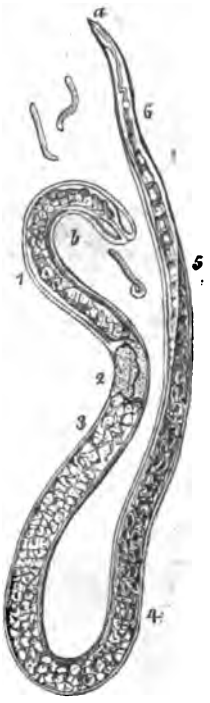
Fig. 4.

Fig. 4.—Magnifying power, 150.

The male trichinæ may be recognised by containing, in the posterior third of the body, testicles with excretory ducts (Fig. 3, 2), and by having at the posterior extremity two prominences similar to thorns or cones (Fig. 3b and Fig. 4b). These latter are the organs of copulation. A full-grown male trichina is from 1 to 1·5 millimeters long, and from 0·03 to 0·04 millimeters wide. It is probable that the males die soon after connexion has taken place; for while at first their number almost equals that of the females, it soon decreases, and from the tenth to the fourteenth day after the trichinous meat has come into the stomach only females are observed, which live longer than the males, as they require more time for maturing ova and producing progeny. Six weeks after feeding, no trace either of males or females is to be discovered in the intestines.

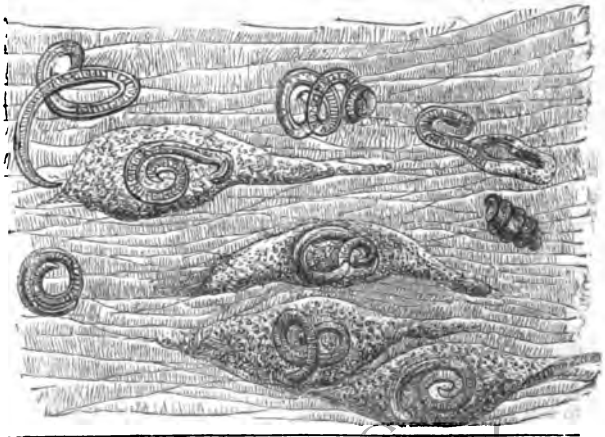
The full-grown females are considerably larger than the males, viz., from two to three millimeters. This is owing to the greater development of the posterior part of the body, the ovaries and Fallopian tubes being much more extensive than the testicles. The posterior extremity is more rounded than it is in the males, and is devoid of the cones found in the latter. Copulation takes place a few days after the animals have arrived in the stomach. In each ovum after a time an embryo is formed, which becomes free by rupture of the membrane enclosing the ovum, and travels towards the anterior part of the Fallopian tube (Fig. 5, 4—5). As soon as the embryo has arrived at the opening of that tube (5) it goes out and begins its individual existence. At this period the embryo is very small and quite transparent; it is 0·05 millimeters long and 0·005 millimeters wide, and devoid of any special organs. The time required for the intra-Fallopian development of the embryo varies, according to Vogel (i) from two days to six weeks, the difference being obviously due to two causes. In the first instance it appears that the development lasts longer if the trichinæ that have been eaten were very young; in the second place, the number of ova contained in one female must be taken in consideration. Most females contain from 300 to 500 ova, which only gradually advance towards the anterior opening of the Fallopian tube, and it is therefore evident that more or less time must elapse between the birth of the first and the last of the progeny.

Fig. 5.



Soon after birth the trichinæ leave the intestines and migrate into the peritoneal sac. For this they have to perforate the coats of the bowel, which, on account of their minute size, they probably accomplish without tearing the membranes, but merely driving them, as it were, asunder. This process is facilitated by the shape of their head, which may under certain circumstances become sharply pointed. From the peritoneal sac they proceed to all the striated muscles, excepting only the heart, in which they are scarcely ever found. They find their way to the muscles, where they are led by instinct, through the connective tissue, without, however, leaving any visible traces of their migration. They penetrate through the sarcolemma into the interior of the muscular substance, which is, by their invasion, considerably altered. In moving through the fibres, the worms, in fact, break through the more delicate constituents of

Fig. 6.



(h) *Comptes Rendus de l'Acad. des Sciences*, vol. xlix., p. 660.

(i) l. c., p. 21.

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the contents of the fibres, and at the same time take from them nourishment for their own use. At this period trichina is furnished with a mouth, an œsophagus, and intestinal canal; within a few weeks it grows so much that it attains thirty or forty times its previous size, which would be impossible if it did not assimilate nutritive material from the muscles. It not only destroys the muscular substance, but has also an irritating effect upon the adjacent parts. This latter may be chiefly perceived in the sarcolemma and the muscular corpuscles, and more especially their nuclei. On the spot where the animal has fixed itself, the sarcolemma becomes thickened, the nuclei of the muscular corpuscles increase in number and size, a firm substance is deposited between them, and in this way the worm gradually becomes enclosed by a thick cyst, which generally contains only one, but sometimes two or three, trichinæ. In proportion to the growth of the animal, it gradually assumes a spiral form similar to that of the spring of a watch. The time taken for these processes extends generally from the third to the fifth week. Within the next few months further changes go on in the cysts. Chalk is deposited in them, first at one extremity (Fig. 7), and afterwards in the whole of the cysts (Fig. 8). This latter is then no longer transparent, and its coat appears very much thickened. In this state it may be seen with the naked eye (Fig. 1). The flesh has a sandy feel, and on cutting it through with a knife it grates. The animal is now enclosed in a shell, like the egg of a bird. According to Vogel (k) the deposition of lime begins towards the fifth month. In those trichinæ which have been so frequently observed in the dissecting-rooms of Edinburgh, Berlin, etc., the cysts are generally completely calcified. It is probable that years may elapse before this occurs. In most cases the trichinæ contained in these cysts still preserve their vitality, and are capable of development; if the lime is dissolved, and they themselves are warmed, they begin to move about; if given to animals to eat, they undergo all those changes which have been related above. Sometimes, however, the worm itself is calcified and dies.

Fig. 7.

Fig. 7.—Magnifying power, 120. Trichina from the muscle of a dog, five months after the animal had eaten trichinæ. Earthy deposit at the upper extremity of the cyst, within which the worm is still visible.

Fig. 8.

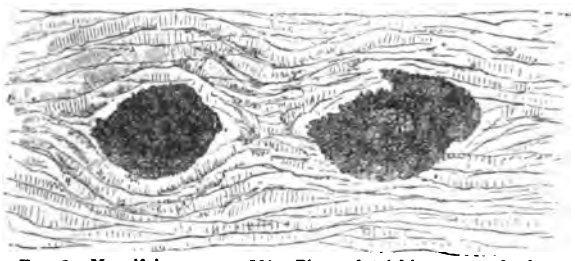

Fig. 8.—Magnifying power, 120. Piece of trichinous muscle from a human subject. Cysts completely calcified. The trichinæ within them only become visible after the lime has been dissolved by the addition of acetic acid.

The number of trichinæ which may be found in muscles varies exceedingly. In some cases there are not many of them; in other instances a piece of flesh not larger than a pin's head contains twenty and more. The sum total to be found in a man or an animal may amount to several millions. Six thousand millions trichinæ only weigh one pound.

How should Suspected Meat be Examined for Trichinæ? From which Muscles should Specimens be taken?

I have already mentioned that the cysts are visible to the naked eye as whitish, round, or ovoid spots, with which the surface of the muscle is sprinkled. If these are touched with a drop of acetic acid, or, better still, with diluted hydrochloric acid, the lime is dissolved and the white colouring disappears. This experiment is, however, not perfectly certain if larger pieces of flesh are examined, for the acid then produces a deposit from the muscular juice, whereby the whole surface becomes indistinct and turbid. It is, therefore, the best plan to cut off a very small piece of flesh with a fine pair of scissors, to tear this asunder with needles, and to free the cysts as much as possible from the flesh. If this is done on a glass resting on a dark object the cysts may be clearly distinguished as whitish grains, and the dissolving power of acids becomes well apparent. If the spots retain their colour, it is probable that small pieces of fat, nervous fibres, or similar formations are present. But as pieces of fat may be connected with the cysts, a negative result is not so decisive as a positive one, and it is, therefore, in doubtful cases always better to use the microscope in order to decide the point.

It does not matter very much from which muscles the pieces to be examined are taken. Even if there are only a few trichinæ, they generally exist in all the muscles of the body, excepting the heart. The heart of pigs may therefore be eaten with impunity. Trichinæ are, however, more numerous in the tendinous extremities of the muscles, which is probably due to the circumstance that a large number of trichinæ penetrate as far as possible in the muscular tissue, and only stop their progress if certain impediments (as tendons) offer. If we, therefore, wish to make the diagnosis of trichiniasis in man, it is best to excise a little piece of flesh close to the insertion of a muscle.

Trichinæ which have not yet become encysted can only be recognised by means of the microscope. A thin layer of flesh should be cut out with a sharp scalpel, spread over a glass plate, and moistened with a drop of water. If it is then covered with a thin sheet of glass, we may distinguish trichinæ, if there are any, with a magnifying power of 50. Their intimate structure, however, can only be recognised with a power of 300.

(To be continued.)

(k, l. c., p. 24.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

JERSEY HOSPITAL.

CASE OF AMPUTATION OF THE LEFT ARM AT THE SHOULDER-JOINT—RECOVERY.

(Under the care of Mr. GODFREY.)

George P., aged 25, was admitted into Hospital June 8, 1863, as he was suffering acutely from an enlarged and much inflamed shoulder-joint, of which he gave the following history:—

He fell, early in January, from the side of a large vessel with his left shoulder across a hawser. The fall was stated to be about sixty feet in height, and was attended with great pain in and about the shoulder-joint, and the arm remained quite helpless. He was therefore admitted into an Hospital, and treated for fracture of the head of the humerus.

May 28.—He was discharged with a still helpless and painful joint, in which state he came under my notice.

July 28.—After various changes in the treatment without any marked improvement, his health began to fail, phthisis threatening to set in. Consequently I had a consultation with Messrs. Wood, Blood, and Leacroft, when it was agreed to amputate at the joint. I accordingly did so, with their kind assistance, from which time he rapidly improved, and regained his usual health. He was discharged September 10, since which he has always enjoyed perfect health.

Appearances of Bone after the Operation.—The glenoid cavity was healthy. The head of the humerus was necrosed, and a fracture extended downwards for about an inch and a-half. The structure around was much thickened and disorganised.

CASE OF AMPUTATION OF THE RIGHT LEG AT THE HIP-JOINT—RECOVERY.

(Under the care of Mr. GODFREY.)

F. J. L., aged 13, was admitted into the Hospital June 11, 1863, giving the following history:—Four months previously he had a long journey to perform in cold, wet weather, and that immediately after he was taken with severe shivering, followed by fever, and acute pain in the hip and thigh. He was then a thin strumous-looking lad, having a large abscess over the trochanter major, with a fistulous opening leading to bone, and another over the outer ankle, which also led to decayed bone. He was put on meat diet, wine ʒvj., daily, ol. morrhuæ ʒss. ter. die., under which he greatly improved.

September 6.—I had a consultation with several friends, when it was agreed that the patient should be placed under

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the influence of chloroform, and then the fistulous opening enlarged so as to remove, if possible, the necrosed bone. I did so accordingly, but found that the disease ran into the joint as well as down the shaft, and that amputation was his only chance. However, as he was much weakened by the chloroform, which he apparently took with difficulty, the operation was postponed till September 8, on which day I removed the limb. He lost a remarkably small quantity of blood, the artery being well secured by Dr. Maclagan. He, nevertheless, remained in a very weak state, and for three days after the stomach was unable to retain even a grain of solid opium; consequently injections of beef-tea and brandy were given regularly, with the addition of an opiate at night, which acted very beneficially.

September 12.—He took a little champagne and ice, which the stomach retained. Bowels acted in the evening. Injections discontinued. The femoral ligature came away on the fifteenth day, and the flaps, which were kept together by stout silver wire, united very willingly.

October 14.—He was discharged in perfect health, which he still enjoys.

MIDDLESEX HOSPITAL.

CASE OF DISCOLOURATION OF THE SKIN.

(Under the care of Dr. GREENHOW.)

This case, Dr. Greenhow thought, would be considered interesting in reference to the possibility of similar ones being mistaken for the bronzed skin of morbus Addisonii.

The patient, who was 65 years of age, had been admitted into the Middlesex Hospital on June 3 last. She had been tramping about the country, and was in a very filthy condition and swarming with vermin, much emaciated and anæmic from hardship and long-continued scantiness of diet. Her appetite, however, had never been impaired, and she was quite ravenous at the time of her admission. Face and conjunctivæ were sallow, and feet slightly œdematous. Under good diet and Hospital management she had improved greatly in flesh and strength, and was now in very good condition.

The following notes of her case were taken by Dr. Greenhow on August 24:—

Pulse 86, of fair volume, not particularly compressible. Face scarcely sallow, but a little dark under the eyes. Conjunctivæ slightly yellow and muddy-looking. Tongue clean and normally red. Lips and buccal membrane also of normal colour. Arms, from a little below the insertion of the deltoid downwards, and legs below the knees, were also of normal colour. Body generally of a dark black-brown colour, excepting a large patch in the lower part of the left axillary region, and a smaller patch over the costal cartilages on the same side. The darkness not greater at the axillæ nor around the nipples, which are of normal colour and appearance, neither any increase of darkness round the navel. The dark surface has, on close inspection, a mottled appearance, being interspersed with minute patches of normal-coloured skin. The integuments, viewed under a lens, appear, in fact, to be of four shades of colour, viz.:—1. The normal colour. 2. A yellowish sallow hue. 3. Brown colour. 4. Specks of almost black hue. The darker patches appear to consist of small specks, or points of black and brown conglomerated together, and in some places the darkened cuticle under the lens looks raised, and in others a little rough. The appearance of elevation is especially noticeable in those darker patches which do not fade into a lighter degree of darkness, but end abruptly in pale, apparently normal coloured skin. Discolouration in front gradually fades into a yellowish sallow hue under the chin, and there disappears. Discolouration rather paler on back than on chest, and extends from the hair downwards to thighs. On anterior surface of legs numerous small isolated spots, some of which, under the lens, look red, others rough or covered with a small crust, others brown, closely resembling the darker patches on the trunk. A few similar spots on arms.

On August 26, in order to determine the seat of the discolouration, the cuticle was raised in two small patches on the chest by the use of liquor vesicans, and for some weeks after the healing of the blistered surface those parts remained pale, but gradually resumed the dark colour of the surrounding skin. Patient was ordered to have an alkaline warm bath three times a-week, and to take full doses of nitro-muriatic acid.

Under this treatment the discolouration has very considerably diminished, especially at the axilla, and on the back and shoulders, on which considerable friction has been used after the baths, and the woman's health has become perfectly good.

From the description and the history of the case it was, Dr. Greenhow thought, evident that, although the discolouration of skin at first sight strongly resembled that found in morbus Addisonii, yet the entire absence of the characteristic constitutional symptoms, the almost entire absence of the discolouration from the face and other exposed parts, and the patchy character and defined margin of the discolouration itself conclusively distinguished it, in Dr. Greenhow's opinion, from true cases of Addison's disease.

THE ROYAL LONDON OPHTHALMIC HOSPITAL.

CASES OF ONYX AFTER SMALL-POX.

[Communicated by Mr. Spencer Watson.]

Case 1.—William T., aged 31, an engineer, generally in good health. He is pitted with recent small-pox, which came on about four weeks ago. He says that three weeks ago his left eye first became inflamed, and that it was then very painful, and disturbed his rest.

January 3, 1863.—There is now a yellow central opacity, of roundish form, and of the size of a millet seed; surrounding it is an irregular nebula. The pupil acts freely. He has intense intolerance of light, but is in no actual pain, and sleeps well at night. Atropine drops were administered, and he was directed to use belladonna embrocation and to take decoction of bark.

Under this treatment he improved up to January 24, when he began to complain of pain in the eyeball, and there was, at the same time, increased vascularity and intolerance of light. A blister behind the ear and a smart purgative relieved these symptoms; but it was found necessary to apply blisters three times after this, on January 31, and February 11 and February 21.

February 14.—There is still some intolerance, but no pain. The pupil is dilatable.

March 4.—The cornea is now much clearer, the yellow opaque spot having disappeared, and an ulcer formed, from giving way of the anterior layers of the cornea.

14th.—There is now no intolerance of light.

After this date the improvement continued, and vision became daily more distinct. On April 11, only a faint nebula, extending from the site of the onyx to the lower margin of the cornea, remained, and he was able to read pearl type—(No. 2 of test types).

This is a case of onyx which ran a very favourable course. The quantity of pus between the layers of the cornea was small; in the first instance, it made its way out forwards, and thus rendered the danger of iritis and prolapse less imminent; and the vital powers of the patient were sufficient to carry on the process of repair rapidly, and without any too copious effusion of plastic materials in an opaque form.

Case 2.—Emma S., aged 7 years, applied at the Hospital on January 28, 1863, with a diffuse haze of the right cornea. She had had small-pox seven weeks before admission, the pits remaining from which are plainly visible. She was then in great pain at nights, and suffered from considerable intolerance of light. There were nebulæ occupying the outer half of the corneal area, and a vascular zone surrounding it in the sclerotic. Atropine drops were administered; a blister was ordered to be put behind the ear, and decoction of bark was given in half-ounce doses three times a-day.

On February 4, so far from being improved, she was found to have an onyx occupying the whole of the central region of the cornea; the pain and intolerance of light had increased; she had been using belladonna embrocation with considerable relief. A leech was applied to the temple.

March 4.—There is now no pain; the cornea is clearer; there is less photophobia, but considerable lacrymation.

After this she came no more to the Hospital, and as she was improving at the last opportunity of seeing her, it is fair to conclude that this improvement continued.

Case 3.—Jem D., aged 40 years, a farm labourer near Barnet, applied at the Hospital on January 14, 1863. Three weeks before this two of his children had had small-pox, and he himself had had a few spots about him, but had not been laid up by it. At this time his left eye became inflamed.

On admission the whole corneal area, with the exception of a narrow circumferential rim, was occupied by an opaque yellow patch, evidently the result of pus between the layers

of the cornea, and there was probably pus in the anterior chamber at the same time. He had great pain in the brow and forehead, and intense photophobia. His general health did not seem to have suffered, and his appetite remained good. Two leeches were applied to the temples. Liq. cinchonæ, in fifteen minim doses, was administered, and atropine drops were directed to be used three times a-day.

On the 21st the pain was relieved, but in other respects he continued in the same state.

January 28.—A blister was ordered to be put behind the left ear, and decoction of cinchona was given three times a-day.

February 4.—The whole cornea is opaque. The pus, however, has disappeared, and at the outer margin of the cornea there is some puckering of the conjunctiva as if from rupture of the former and cicatrising of an ulcerated wound. There is now no pain.

March 11.—The cornea is still nebulous throughout, and at the central region threatens to become staphylomatous. He has with this eye only a quantitative perception of light. There is no pain nor photophobia.

March 27.—The central region has so far cleared that he can count fingers held between him and the window. There is a well-marked pterygium on the outer and a slight one on the inner side.

This case is a good example of one of the worst possible forms of onyx, and of the probable result in such cases. It was no doubt neglected in the early part of its course, though it may be a matter of doubt whether the result would have been different had treatment been earlier adopted.

Case 4.—Louisa W., aged 4 years, applied May 2, 1863, with recent pits of small-pox and a central opacity of the cornea. The eye affection had only existed fourteen days, the small-pox having attacked her five weeks ago.

There is a deposit of lymph near the centre of the cornea and vessels passing from the conjunctiva and sclerotic across the margin towards it—in fact, interstitial keratitis, the whole cornea being hazy and nearly covered by vessels. She had intense photophobia. Liq. cinchona was given in five minim doses three times a-day, and atropine drops were used twice a-day. Little improvement, however, resulted, and on June 10 there was evident onyx and hypopyon. On June 15 a blister was applied behind the ear, and on the 17th tincture of henbane was added to the bark. She now began to amend, and continued to do so. On August 15 the cornea had become so far clear that she could distinguish large letters (No. 20). The health also had much improved in every respect. On October 24 she continued to improve. There was a dense opacity, partly vascular, occupying the site of the interlamellar deposit of pus; but the rest of the cornea was perfectly clear. Vision had not improved.

Case 5.—Wm. T., aged 20 years. He is a spare man, and has just left the Small-pox Hospital, where he has been six or seven weeks. About one week after his admission into the Hospital the eye became inflamed, and has continued so ever since.

When first seen, June 10, 1863, at the Royal London Ophthalmic Hospital, there was a grey patch of exudation over the centre of the cornea; great photophobia and constant pain in the eye, which prevented sleep. He was directed to use the belladonna embrocation, and to take muriate of iron, mxv. of the tincture three times a-day.

On subsequent occasions he had quinine and henbane in addition to the above remedies.

He improved rapidly, and on July 11 an ulcer, which had formed over the patch of exudation, had begun to cicatrise, the pain and photophobia had ceased, and vision was improving.

November 14.—The condition of the eye was as follows:—Over the central region of the cornea, and partly overlapping the pupil, the cicatrix of the ulcer forms an opaque leucoma, but the cornea is clear elsewhere. He is now able to read No. 18 of the test types, and on dilating the pupil with atropine, No. 16.

It is difficult in this case to decide whether the keratitis was synchronous with the eruption of the variolous pustule or not, the probability is, however, that it commenced during the scabbing of the pustules, as in the previous cases. By the timely exhibition of tonics, the formation of pus between the layers of the cornea seems to have been prevented. At the same time, the youth and strength of the patient must be taken into account as materially influencing the favourable issue of the case.

Case 6.—Henry H., aged 24 years, applied at the Royal London Ophthalmic Hospital on September 23, 1863. Two months before he had small-pox. For the last six weeks he has suffered from inflammation of the eye. There was a patch of lymph covering the surface of the cornea, and the pupil was contracted and irregular. He was directed to use the belladonna embrocation, and decoction of bark with a small dose of bichloride of mercury (one-sixteenth of a grain) was prescribed to be taken three times a-day. At the same time the strong solution of atropine was applied.

September 19.—The inflammatory redness is subsiding.

October 7.—The central region of the cornea is of a bluish-grey colour, sodden and opaque. The sclerotic zone has returned, and he suffers from pain, especially at night. He looks pallid and much enfeebled. Ordered—Pil. saponis comp., gr. v. o.n.; hst. cinchon., ʒj. t.d. s.

The patient has not since returned to the Hospital, the history therefore remains incomplete, but it is nevertheless instructive, as showing the sequence of phenomena after small-pox, and the tendency there is to destructive inflammation in the corneal tissue, even after the variolous poison has to all appearance become extruded from the system.

Case 7.—Celia M., aged 4½ years. A strumous child, who had measles six months and small-pox four months before admission, September 30, 1863. She is marked with recent pits of small-pox, and on the right cornea there is a partial staphyloma of recent formation, with considerable vascularity and inflammatory opacity in the surrounding structures.

She was put upon a course of steel tonics, and a compress was applied over the protrusion.

On December 2 the inflammation had quite disappeared, but some intolerance of light remained. There was only very slight amount of vision, owing to the nearly complete opacity of the cornea around the staphyloma.

Case 8.—Emma H., aged 20 years, applied at the Hospital November 28, 1863. Six weeks previously she had had small-pox, which had left pits over her face. Two weeks ago, inflammation of the left eye commenced.

There is now (November 28) a deposit of pus at the outer side of the centre of the left cornea of the size of a rape seed, and an ulcer occupying the same region, but more extensive. She suffers from aching pain and much intolerance of light.

She was put upon decoction of bark and belladonna embrocation.

December 5.—Less vascularity and very little pain. The ulcer has not extended.

19th.—No photophobia; less vascularity; the ulcer healing.

The improvement continued, and on January 27, 1864, the inflammation had quite subsided, but had left a leucoma over the central region. She could, however, read No. 16 of the test-types.

On February 13 her vision had not improved: the leucoma will probably be permanent, as it has not materially changed in its characters since the last note. On testing her with glasses, it was found that she had a high degree of hypermetropia, which, to some extent, may account for her imperfect vision.

Case 9.—Emily P., aged 15. A strumous girl, with abscess in the neck. She had small-pox three months ago. The left eye was inflamed before the attack of small-pox, but became much more so during the disease.

October 28, 1863.—An ulcer occupying the outer side of the pupil; much photophobia, but no pain. She was put upon quinine, and belladonna fomentations were used, and this treatment was continued up to December 9, when only a faint nebula remained, and the photophobia had entirely disappeared.

THE TRICHINA PANIC IN GERMANY.—The extent to which this prevails may be judged of by the advertisements which appear respecting the trichina in the newspapers and Medical journals. In the latter we find "The Trichina Mirror. A popular scientific demonstration of the Nature of Trichina Disease, illustrated by twelve woodcuts, price 3d." "Preparations of Trichina for the Microscope, put up under the superintendence of Professor Vogel, of Halle. Trichinæ of Muscle, 18s. per dozen, or 1s. 6d. each. A suite of three pieces, viz., Intestinal Trichinæ, Muscle Trichinæ at the commencement of encapsulation, and Trichinæ with calcified capsules, for 6s.; or a dozen containing four suites for a guinea."

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Medical Times and Gazette.

SATURDAY, APRIL 2.

TOPICS OF THE DAY.

Last week we announced that the Branch Council of Medical Registration and Education for England had agreed to recommend the General Council to abandon for the present the proposed Amended Medical Act. We confess that we are neither surprised nor sorry at this decision of the most important section of the Council. The recent taste the Profession have had of legislation is by no means appetising. Our experience of the past begins with a poll-tax, and culminates in the British Pharmacopœia. Any other reminiscence left by the working of the Act or the exertions of the Medical Council is of the most shadowy description. The benefits which were to be conferred turn out to be wholly imaginary. The only tangible thing we have got is a Register, in which heretics and orthodox are indiscriminately mixed, and a Pharmacopœia which is so faulty that it has just been publicly stigmatised by the President of the Royal College of Physicians. We do not now stop to inquire whether this entire failure is the fault of the Medical Act or of the Medical Council. The broad fact remains that a legislative enactment, which has been only obtained after years of exertion, and which has cost the Profession an enormous sum of money, has proved utterly futile and unremunerative. It might reasonably be held that the complete failure of so costly an experiment should at least postpone its repetition for some time. But there is a class of Medical politicians who are so wedded to the principle of State interference that they can only see in all that has passed a reason for repeating the process. They fully acknowledge that legislation has been a dead failure, but they think that the remedy for the failure is more legislation. One of the most influential of our Medical contemporaries holds this opinion. Like Dr. Sangrado, when the patient dies after the fifth bleeding, and a proportionate quantity of hot water, it in effect gravely asserts that death took place from his not having drunk more water and lost more blood. As amongst the ills of the body physical there are certain diseases which are said to be cured by a reiterated inoculation of their specific poisons, we are recommended a curative course on the same principle for the body politic. We are to kiss the rod, and humbly beg for its fresh application.

These observations have been in part suggested by the eagerness which certain bodies hitherto considered outside the pale of the Profession have at once shown to take advantage of any disturbance in the present state of things and to assert a claim to be admitted into our ranks. We have lately examined the pretensions of the chemists and druggists. But another set of aspirants are the dentists, or rather, we should say, the possessors of the dental certificate of the Royal College of Surgeons. We confess that the position of these gentlemen is somewhat anomalous, and it may be fairly asserted that they have met with but scant courtesy from their adopted mother in Lincoln's-inn-fields. They have paid their fees and have passed a nominal examination, which, however, in the case of future candidates, is, we are assured, to be of a more searching character, and they have hitherto received in return from the College nothing but a parchment conferring neither privilege nor protection. We think the College is bound to extend to them the courtesy of admission to the reading-room and museum and to the College lectures. But, at the same time, we maintain that the possession of a certificate of fitness to practise dentistry from the College of Surgeons gives them no real claim to be placed on the register of Practitioners of Medicine and Surgery. It may be true, as Mr. Lawrence asserted at the recent dinner of the Dental Licentiates, that the curriculum to be hereafter followed by candidates for the dental certificate will render them better informed than are the members of the College. If it be so, all we can say is that the fault rests with the College, which regulates the curriculum and the examination imposed on its members. But whatever may be the advantages conferred by the respective educations, there is no doubt that the examination for the dental license is essentially different in kind from that for the diploma of the member. The Profession, however, will not tamely submit to see a new body of men, the great majority of whom have passed only a nominal examination in dentistry, placed on the Government Medical Register. The public will reasonably suppose that a very slight difference exists between the Dentist and the Surgeon. The former will prescribe lawfully for all affections connected with the dental apparatus and the other organs of the mouth, neuralgia, affections of the antrum, salivary glands, and tongue, and any constitutional treatment they require will at once be competed for by the new order of Practitioners. To metropolitan Physicians and Surgeons this will probably make but little difference, but it will seriously affect practice in small towns and villages. We are actuated by no narrow spirit of jealousy in these remarks. The Medical Profession will be most happy to recognise in dental practitioners valuable allies, but they have no wish to meet them as rivals. If the new curriculum imposed on these gentlemen be in reality superior to the curriculum for the membership of the College, let the Licentiate in Dental Surgery, as a preliminary step, obtain the diploma of membership, and afterwards pass a special examination in the dental art. Then, and then only, will the Medical Profession cordially welcome the dentists into their body. At present, as is well known, the majority of the gentlemen who have obtained the dental certificate have passed through no prescribed course of study, whilst the examination to which they have been subjected has been of an entirely nominal character.

Now we are on the subject of the dinner of the Dental Licentiates, we are tempted to notice a post-prandial oration of the "Nestor of British Surgery," Mr. Cattlin, F.R.C.S., to whom the Medical and dental Professions are equally indebted for much self-denying work done for both, had hinted his hope that the examination for the dental license would, in time, be preceded by an examination in classics and mathematics. This very reasonable and laudable aspiration met with no sympathy from Mr. Lawrence. He is evidently at variance with all the ancient as well as modern theories on the beneficial effects of the humanities. He said:—"I think a person who is decently acquainted with reading, writing, and arithmetic, if he gets thoroughly acquainted with his own profession, will become a very useful member of society, though he does not know Latin or Greek, nor the elements of mathematics." Of course the same might be equally affirmed of a farrier; though how a person can be acquainted with the nomenclature of anatomy, natural history, and botany without a smattering of Greek and Latin, or can master the elements of physical science without some little knowledge of mathematics, we are at a loss to understand. No doubt there have been here and there men of enormous talent, like John Hunter, who have become great Surgeons without much preliminary training, although it is to be remembered that Hunter, as a Scotchman, certainly

got something more in the way of early education than merely "the three R's." But the generality of minds which have only been exercised up to this point would be quite incapable of "getting thoroughly acquainted with their own profession." Had such an opinion come from any authority less eminent than Mr. Lawrence we should have passed it over in silence as unworthy serious examination. We hope that we are mistaking Mr. Lawrence, and that he spoke in irony, and not in sober sadness; if otherwise, we can only attribute his extraordinary and unique opinion to a love of paradox and a natural relish for differing from the rest of the world.

Amongst other "topics of the day," the re-election of Dr. Watson to the Presidential chair of the College of Physicians may be mentioned as a proof that that learned body are as keenly alive as ever to everything that is worthy of veneration—scholarship, character, and Professional skill. We wish that we could speak in terms of equal approbation of another act of the College. It has lately been employed, at the request of Government, in the revision of rules for public general Hospitals in the colonies. Amongst the recommendations confirmed by the College at its last meeting is one which appears to us not merely extraordinary, but reprehensible. They have recommended, "That all cases of infectious diseases, excepting small-pox, should be treated in the same wards as other patients." This, in the face of the accumulated experience of the Fever and the other London Hospitals, involves the College in a heavy responsibility, which we suspect few other Medical Corporations would be willing to share.

SCHOOL DIETS.

Were we to summon a congress of parents, schoolmasters, and other authorities on the rearing of our species, for the purpose of drawing up tables of diet for children, the result, we suspect, would be hopeless confusion. As many dietaries would be proposed, and stoutly supported, as there might be members of the "congress"—"*quot homines (feminæque) tot sententiæ*," the utmost we could hope for would be a general, and useless, resolution "that children should be dieted according to their respective constitutions;" and such a resolution as this even would be certainly opposed by some, who would contend that the diet should make the constitution—not the constitution the diet. We incline, however, to the belief that in private life, except when mamma happens to be cursed with a smattering of Medical reading, or is ruled by semi-scientific theories, the feeding of children is prone to err rather on the side of excess than of deficiency. Certainly among the lower classes the rule obtains, more or less, that children should eat when they like, what they like, and as much as they like; and among the upper classes there is more danger of a child being overfed than starved, unless a half-educated or a "highly accomplished and learned" mother is so blown up with imperfect and semi-digested theories of physiology that the voice of instinct and common sense is totally suppressed. Then, indeed, children are too often starved both as to food and warmth, and their life kept at a low ebb with an idea of making them vigorous and hardy. But as a rule, children in private life are fully well fed, and so also in schools now-a-days. In our large public schools, and in the great majority of private schools, the diet is ample and good, and in many luxurious. Young gentlemen will, indeed, while at school abuse the food provided for them, and will spend all they have, and much more, at the "tuck shop;" but as soon as they get home they turn up their noses at the domestic early dinner, and swear it is not half so good as what "Old Jones" gives them. Still, no doubt there are many mysteries in the way of feeding to be learnt in the small schools scattered over the country, and our minds have been much astonished and exercised by the revelations made on this subject during a late trial in a provincial town.

The Misses Green, who keep a boarding-school, sued a restive parent for two quarters' board, etc., for a boy of 9, whom mamma had had home during the quarter, and had kept at home without any notice or warning; and mamma's defence to the action was that her boy had been ill in consequence of insufficient and bad diet at school. The charges at the school were certainly very moderate—if they should not be more justly called immoderately low. They were suited to the meanest capacity of purse—only £15 a-year was charged for board, lodging, and instruction! We do not learn what "extras" there were, nor what was the curriculum of instruction; but as it is in evidence that the Misses Green had paid "their Music Teacher's" bill, we may infer that it embraced even what may be called the luxuries of education; and there is nothing to show that the school did not enjoy a fair repute. No other protesting mammas appeared but this one, and no other injured children. Thinking, then, on how little of the £15 could remain to pay for food, we looked with great curiosity to see what the diet was, and found it thus fully given by a hostile witness, who was servant in the school in 1862 and 1863:—

Breakfast.—Milk thickened with flour and water, and a round of bread; or nettle or onion broth made with oatmeal and water.

Dinner.—Sunday, meat, plenty of vegetables and pudding. Monday, pudding. Tuesday, cold meat and vegetables. Wednesday, boiled rice and treacle. Thursday, meat. Friday, rice-pudding. Saturday, boiled bacon or pig's face, and boiled peas.

Tea.—A cup of tea and a round of bread and lard, or more if they wanted it.

And, "not more than three times a week"—on, we suppose, the no meat days—soup made from sheep's-head and pluck.

All this, with such an education, for £15 per annum! We are compelled to regard the Misses Green with profound admiration.

Compare their dietary with that of a great and eminent educational establishment, that of Christ's Hospital. In 1857 the following was the diet-table at the Hertford branch, in which the boys average from 7 to 11½ years of age, the girls from 7 to 15:—

Breakfast.—Bread, five ounces, and half a pint of new milk

Dinner.—Bread, two and a-half ounces; potatoes (or rice), six ounces; roast or boiled meat, four ounces—the first six days of the week. Saturday, bread, five ounces; one pint of pea-soup, one-third of an ounce of butter.

Supper.—Bread, five ounces; butter, half an ounce; milk-and-water, half a pint.

"Some of the elder girls have additional nourishment."

The Misses Green did not measure out their food by the ounce! and the soup of "sheep's-head and pluck" may have been made as nourishing as "four ounces of meat." The Surgeon who gave evidence on the mamma's side says, indeed, that "he could not consider that soup made of sheep's lights was a proper thing for the regular diet of children," and we must admire his courage in offering such an opinion; but it hardly seems to apply here, as the soup was provided "not more than three times a-week," and the sheep's-head was added to, not only the lights but, the "pluck" as an ingredient, and forms—as our Scotch friends at least will allow—a very important addition.

But our greatest admiration is given to the nettle porridge. Some of the ignorant and prejudiced witnesses spoke slightingly of it as "nettle broth," but it was evidently oatmeal porridge with nettles added. Such an item of diet evinces a tenderness of regard for health, enlightened by a degree of judgment and learning that excites our highest consideration. The Misses Green are evidently deeply versed in the lamentably-neglected knowledge and use of simples. In the interest of their little charges they have studied our old herbals, and are aware how wrong it is to regard the nettle as a "weede, seeing that it is so profitable to many purposes." We need only

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quote in proof of this from Thomas Cogan's "Hauen of Health," 1589:—

"Ægris dat somnum: vomitum quoque tollit et usum,
Compescit tussim veterem; colicisque medetur:
Pellit Pulmonis frigus ventrisque tumorem.
Omnibus et morbis sic subuenit articulorem."

The very thing for scrofulous children! and how infinitely superior in many ways to brimstone and treacle! We acquire a deeper sense of the iniquities of Dotheboys' Hall; we had imagined that Mr. Squeers was screwing but a miserable living out of his boys; but if the Misses Green can get any profit out of their school at £15 a-year now, Mr. Squeers must have been rapidly making a fortune. We suspect, however, that the Misses Green are secret benefactors; hiding their good deeds under the pretence of keeping a school for profit, they were really sacrificing their ease, time, and substance for the benefit of the rising generation. If not, we could wish that British wives would take a lesson in economy from them, for we know but too well at present that we cannot board, lodge, and educate our children in their style for anything like £15 per annum.

THE WEEK.

LESSONS FROM OUR NEIGHBOURS.

Mr. Greaves, President of the Lancashire Veterinary Association, delivered a capital address to the members at their late meeting in Manchester. Are there any country Surgeons who groan at the idea of becoming Councillors of the Royal College of Surgeons? Let them learn from Mr. Greaves that—

"We see our ex-President, with his extensive practice, go up to London to the meetings of Council seven times every year, and to Scotland once or twice every year, to exercise that fine perception of judgment necessary for an examiner, travelling a distance of over 3720 miles yearly, at an expense of over £30 for railway fare alone, to say nothing of the loss of time—time which is to him of far greater value than money. We are under a deep debt of gratitude to that gentleman, and I feel I must honour that man for his zeal and the great sacrifices he has so nobly, generously, and freely for so many years laid upon the altar of veterinary science."

Are there any of us perplexed at the failure in life of some of our brethren? Let us hear Mr. Greaves, whose words might well be written in letters of gold, and hung up in every Medical school:—

"In our daily life, on a cursory view of human nature, we see many things calculated to perplex and embarrass us. We see, for instance, men rich in intellectual attainments unable to secure for themselves a sufficiency of ordinary necessaries, whilst, on the other hand, we see plain uneducated men, of unquestionably a lower order of intellect, quietly and diligently plying their avocations, it being an invariable rule with such men, under all circumstances, to execute business with prompt and decisive action, and by a wise, economical application of time and means amassing money; and in a few years of wholesome thrift we find them rolling in wealth. We are apt to refer matters of this kind to some mysterious dispensation of Providence beyond our comprehension, and wholly independent of human control; but, on a closer inspection of the circumstances of any particular case, we often find all mystery vanishes, and we are able to trace men's failures to natural causes. It will frequently be found that such failures are referable to some weak point in mind or body, or to a defect in the balance of power amongst the different functions—a victim to the baneful effects of the worst of all habits, procrastination, and irresolution, a want of nerve and energy, a deficiency of animal and moral courage, which is necessary for success in the practical struggles of life. With him there is a constant miscalculation of time and means, occasioning continual hurry, difficulty, expedients, penury."

Are there any of us inclined to degrade our calling, and listen only to the inspiration of the *auri sacra fames*? Mr. Greaves says of the motives which induce the Veterinarian to come to an Association meeting—

"We may liken it to an *errand of mercy*, in which we feel impelled by a strong intellectual desire to acquire more practical knowledge, by which we may with more ease *administer relief*, and with more certainty *remove suffering and save life. What object on earth, I would ask, can be more laudable or more praiseworthy?* Talk of a heavenly calling being compatible with an earthly calling!—why, in its very contemplation it has an infinite charm."

This is true professional enthusiasm, and we congratulate the Veterinarians most cordially upon it.

THE ROYAL COMMISSION ON PUBLIC SCHOOL EDUCATION.

For the last few years a Royal Commission has been sitting to inquire into the state of education at our public schools. The Commissioners have just brought their labours to a close, and issued their report. It is a ponderous volume, and embodies a great deal of evidence, collected from a variety of sources. But the suggestions it contains—at least, so far as they interest us—may be given in a few words. The Commissioners recommend that the Greek and Latin classics should still retain their place as the basis of education; and for this they assign what appears to us to be very good reasons. But they are anxious to promote other studies as well, and among these they would include *at least one branch of natural science.* And if one of the natural sciences is taught, it is probable that several will be; for it would be difficult to say which of them ought to be selected to the exclusion of all others. Further, the Commissioners recommend, with certain limitations, a system analogous to the French *bifurcation*, by which a boy, on reaching a given position in the school, would be allowed to choose his own line of study, even though such choice led him to lay aside classics altogether, and devote his whole attention to natural science. Of late years arrangements have been made at many schools for teaching natural philosophy, chemistry, geology, etc., but now a Royal Commission, speaking to the foremost schools in the country, and with the voice of authority, recommends that these subjects should form part of the regular course of study. Thus, then, the natural sciences, which Aristotle and the ancient philosophers studied and taught, but which have long been excluded from our English schools, are in the fair way of being admitted. A knowledge of chemistry or geology will no longer be considered as an "elegant accomplishment," but as an integral part of a good education. Nor is this without its interest for us. Our Profession is the natural outlet for a boy who has a taste for the physical sciences. If a lad is well taught in chemistry or botany at school, he will find his Medical studies so much the lighter when he enters upon them. Moreover, every encouragement given to the study of natural science tends to raise the standard of Medical education; and just in proportion to the measure of education which is general among us will be the usefulness, the influence, and the social position of our Profession.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE IX.—FEBRUARY 20.

In this lecture the account of the variations of human structure was resumed. Daubenton was the first to point out that the position of the occipital foramen, in man situated near the centre of the skull, gradually recedes backwards as we descend through the animal series, and that the plane of the foramen, at first horizontal, gradually becomes more oblique, and at last vertical. The best way to measure this is to bisect the skull in the longitudinal and vertical direction (without which no examination can be made with any approach to completeness or exactitude), and then draw a line from front to back in its greatest length, and let fall another at a right angle with this, through the middle of the occipital condyles. The point at which the line drawn through the condyles meets the longitudinal diameter varies greatly in the human species, both in individuals and races. In a well-formed European skull, the space behind the condyles being represented by 100, that in front will be about 115, but it has been found to reach 140, though this is very uncommon. In the lower races, on the

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other hand, 100 to 140 represent a very frequent proportion between the parts of the cranium thus divided. M. Gratiolet has pointed out a difference in the order in which the sutures become obliterated, the coronal and sagittal disappearing sooner than the inferior sutures in the lower races, and *vice versâ*; but this remark requires a larger basis of observation before it can be accepted. The different planes in the interior of the skull, mentioned in the first lecture, vary considerably in different individuals, but their variations have not been shown at present to accompany any marked difference of race; it is important, however, to remember that variations may exist. The plane of the squama occipitis also varies extremely, sloping sometimes backwards and sometimes forwards from the superior curved line on the occiput, corresponding with the development of the posterior lobe of the brain.

The development of the face and jaws, in proportion to that of the cranium, is a very important point of difference in various races of men. The determination of their proportions by the facial angle of Camper is not very successful, as the points chosen for its measurement are not relatively fixed. The best method is to bisect the skull, and find the cranio-facial angle, or the angle formed by the basi-cranial axis (from the posterior end of the basi-occipital to the junction of the presphenoid and ethnoid), with a line drawn from the last-named point to the anterior extremity of the premaxilla. It will be seen, by comparing sections of different skulls, that this angle varies greatly, the face undergoing a kind of rotation on the skull; when the angle is open, the jaw projects, giving rise to what is termed "prognathism;" when it is nearer a right angle, the skull is "orthognathic." But projection of the jaw is not only caused by great angulation of the face; the actual size of this part of the skull ("macrognathism"), as compared with the cranial part, must also be taken into account. The jugal arch differs very greatly in size, strength, and lateral projection; when a skull is held at arm's length, with the vertex towards the observer, in some cases the arches are seen projecting beyond the sides of the cranium; such skulls Mr. Busk proposes to call "phanozygous." In well-formed European skulls the chin is straight, or projects beyond the level of the incisor teeth; in the lower races it retreats somewhat, though the recession appears greater than it really is, in consequence of the prominence of the teeth in these races. The arch formed by the teeth in the European, and especially in the short-headed races, is wide and evenly rounded; in some of the lower forms it becomes prolonged and narrow, the sides being nearly parallel. In the lower races the posterior molars are not so disproportionately smaller than the others, as in the higher groups.

Passing from the skeleton, it will be necessary to point out a few of the variations which have been observed in the arrangement of the muscles of the extremities,—a subject which has not been sufficiently attended to, considering the vast opportunities afforded by the dissecting-rooms of our numerous Medical schools. If teachers or students would take the trouble to note all such deviations from the normal structure as may come under their observation, they would render great service to the science of anatomy. In the hand, the flexor pollicis proprius sometimes divides into two tendons, one of which goes to the index finger; sometimes the extensor minimi digiti gives a second tendon to the fourth digit. The extensor indicis is occasionally absent; and sometimes sends a tendon to the third digit; in some rare cases, short extensors have been seen in the hand, and the interossei of the second space have been observed to assume the same arrangement, as to their origins, as those of the foot. In the foot the tibialis anticus is not uncommonly divided into two muscles at its lower end, one inserted into the entocuneiform bone, and one into the first metatarsal; there are sometimes one or two additional peronei passing behind the malleolus; the flexor brevis not unfrequently arises only partly from the calcaneum, the slip for the fifth toe coming from the deep flexor tendon. It appears from these instances that the hand may occasionally assume some of the characters of the foot, but there is no evidence yet to show that the foot ever does the same to the hand.

The brain of man varies greatly in size, weight, and form; perhaps no part of it so much as the posterior lobe, as may be seen in the collection of casts of the interior of crania lately added to the College Museum. There seems no relation between the projection of this lobe and the position of the individual in the scale of human beings; on the whole, it seems as great or greater among the lower than in the higher races. The posterior cornu and hippocampus minor among the internal structures are the most variable, the former being merely a relic of the great original cavity, its greater magnitude would indicate a low, rather than a high condition. The hippocampus minor is constant; but its appearance in the ventricle, being entirely dependent upon the form and size of the cavity, varies greatly. A great range may be observed in the complexity of the convolutions in different brains. On the whole, they are simpler in women than in men, and in the lower races the convolutions have a greater simplicity and symmetry than in the higher. Gratiolet called attention to this in his description and figures of the brain of the Bosjes woman who died at Paris, called the "Hottentot Venus," and though it has lately been asserted that this person was an idiot, there is the best possible evidence to show that such was not the case. Recently Mr. Marshall has obtained from the Cape the preserved brain of another female of the same race, and his description of it, communicated to the Royal Society, fully bears out Gratiolet's conclusion.

The important question now remains, what is the value of the differences which have been shown to exist in the structure of human beings? This resolves itself into two other questions,—1. Are they sufficient to justify us in supposing them to indicate distinct species of men? 2. Can any of the deviations be considered as transitional towards the lower forms of animals? In respect to the first, it is certain that well-defined types occur in different geographical localities; those whose characters are most distinct are,—1. European or Caucasian; 2. Mongolian; 3. Negro or Ethiopian; and 4. Australian. That these types are observable and distinct there can be no doubt, and any zoologist taking a well-marked example of each, without any other evidence, would pronounce them distinct species; but extended knowledge shows that every intermediate form can be found between the most typical, and there is no proof that they are not all fertile, not only *inter se*, but the resulting race is also fertile. These two considerations conclusively show that there is no foundation whatever for the doctrine of the diversity of mankind; the well-marked varieties may be called *races*, but not *species*. As to the second question, it may be answered equally conclusively. Although, here and there, as in the lower races of men now upon the earth, and in the skeleton found in the cavern in the Neanderthal, the human type varies a little in some particulars in the direction of the Ape, the extent of this variation is very slight indeed, when compared with the whole difference which separates them, and it may be safely affirmed that there is at present no evidence of any transitional form or intermediate link between Man and the next succeeding forms in the vertebrate scale.

FROM ABROAD—LEEE-PROFESSION AT FOGGIA — TRIAL OF M. ARMAND.

The Profession has been somewhat scandalised in Italy by the conduct of the Medical Practitioners of Foggia, near Naples. Typhoid fever having broken out in the Military Hospital, it decimated the troops to such an extent that the Military Medical officers no longer sufficed to pay them suitable attention. The civil Practitioners were therefore appealed to for their aid, but in vain, for, with the exception of one, all refused their assistance. We have not seen what reason they assigned for this extraordinary conduct; but at all events it

has proved very unsatisfactory, for the Executive Committee of the Italian Medical Association, stationed at Turin, having full opportunity of becoming acquainted with all the facts, has addressed a circular to all the presidents of the local committees of the Association, calling upon them for the immediate opinions of these various committees as to the propriety of expelling from the Association any of these Foggian Practitioners who, being members of the Association, may be proved to have thus "deserted the field of duty." The Committee has also addressed a letter to the Minister of the Interior, acquainting him that a sufficient number of Practitioners in this and other provinces of the kingdom hold themselves in instant readiness to repair either to Foggia or to any other place where a similar emergency may prevail; and expressing "its confidence that this exception, new in the history of Medical practice, will not prejudice the reputation for abnegation and courage which is a deserved possession of the Italian Medical Profession."

The hackneyed saying, "They manage these things better in France," will certainly not gain an illustration from the last *cause célèbre* which has just been concluded in that country, the trial of M. Armand, of Montpellier, for the murder of his servant. Notwithstanding the *code*, concerning the simplicity, precision, and adaptiveness of which we have heard so much, the most elementary principles of the administration of criminal justice may, it seems, be set at defiance, and procedures put into force worthy of the tribunals of the middle ages. A man of unblemished antecedents, upon the uncorroborated deposition of one of bad character, is kept during eight long months within the walls of a prison, subjected to a system of harsh discipline, reserved by ourselves, if put into force at all, for those who have been condemned. Having been duly tortured by attempts to induce self-condemnation, he finds himself, when put upon his trial, confronted with a judge whose object seems to be to procure, at whatever cost, his conviction, and who, demeaning himself as a prosecuting counsel, manifests irritation when that end is not attained. An acquittal notwithstanding ensues, but by some process, which to us is simply unintelligible, the accused is mulcted in the sum of 700f. or 800f. for blows declared to be "inadvertent," but which, if inflicted at all, were directed with murderous intention. We are not yet in possession of the Medical evidence, but before long we shall doubtless have M. Tardieu's report in full, in which he has exposed the imposture of the accuser. We may observe, however, that in reporting our English trials we are accustomed to severely criticise the discrepancies prevailing among the Medical witnesses, and to say that such exhibitions would be impossible on the Continent, where the system of official experts prevails. Well, on the present occasion, great was the variety of opinion promulgated, and acrimonious was the altercation which it gave rise to.

EXAMINATION OF THE BRAIN OF A CRETIN.—Professor Wedl gave an account to the Vienna Medical Society of the examination of the brain of a cretin girl. The skull-cap was very thick, and in many places beset with bony deposits. The dura mater was attached to the cranial bones, and the walls of the vessels had undergone thickening. The grey substance of the periphery was considerably diminished in quantity, and also changed in colour and structure. The form of the base of the skull was very remarkable, and the occipital foramen was proportionally very large. With the microscope the walls of the capillaries were found thickened (a deposit of a mass of colloid structure existing there also), while their cavities were in part abolished. There were thickening and sclerosity of the cells of the grey substance; but the most important appearances were large masses of white corpuscles, which Professor Wedl regarded as colloid corpuscles. These were only found in those portions of the section in which nervous masses were present. Professor Lenhossek has figured similar bodies observed in cancroid formation in the spinal marrow.—*Wien. Allg. Med. Zeit.*, 1862, No. 49.

THE MEDICAL HISTORY OF ENGLAND.

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(Continued from page 319.)

THE MEDICAL HISTORY OF WOLVERHAMPTON.

FEW English towns are more uninviting to the stranger than Wolverhampton. On entering the place for the first time, it promises nothing save dulness, and the thought that the sooner you are out of it the better comes into the mind with painful spontaniety. The town is hardly to be considered the capital of the black country—at least, not by its blackness, for in this respect it fails to match with Dudley—but still it is dark, irregular, and, curiously enough, considering that it is so large a manufacturing centre, it is quiet. After a short acquaintance it improves greatly, for beneath all its heaviness one discovers a vitality which is refreshing, and indications of progressive improvements which largely relieve the first monotony.

In all their future work for the good of Wolverhampton the authorities there are fortunately placed. Whoever laid the first stone for them knew what he was about: it must surely have been some more than usually wise old abbot, or some learned, peripatetic Freemason, who was conscious, without any professed scientific or sanitary knowledge, of all the requirements, in the matter of site, of a dwelling-place for mankind. Often as we ride along county districts, when we come upon a village or a town, we ask "Why, in the name of all things foolish, was that spot pitched upon for houses? The place is in a valley, or a 'hole,' as they say in 'Loamshire;' it gets no sun, and little wind; when the snow falls on the surrounding hills and melts, the houses are flooded; when rain is withheld, there is water nowhere except at some one spring on a hillside, or at one well which never runs quite out; and so in extremes of season the habitation is next to uninhabitable, and at the best of seasons is susceptible of little advancement physically." From these disadvantages Wolverhampton is free: it stands on a model site for the sanitarian. It is situated on a high ground, its basis a sandstone rock, with a small portion of green or trap rock at the north-eastern part. The water supply—I mean that which is natural to the town—is abundant, and the fall of water is so easy, and the outlets so free, that drainage is secured to a considerable extent without the employment of any artificial means.

The history of the town dates from the year 966. Plott, who is considered a great authority on Staffordshire, states that the town took its origin and its name from one of the noble ladies of the Anglo-Saxon race. Wulfrune, or Wolfrune, said to have been the wife of Athelme Duke of Northampton, is given as the foundress. When the Duke Athelme died and poor Wulfrune was left a widow, with a pious intent, characteristic of the age in which she lived, she built a church, or a monastery, or an abbey, or some other holy place—for the historians are not very clear as to the actual building—and there people congregated, first for religious and afterwards also for secular purposes. Thus there sprang up a commune or town, which took a name from the name and title of its foundress—Wulfrunes-hampton, which name gradually lapsed into the shorter expression, Wolverhampton.

The history of Wolverhampton during its early period is little known; it probably remained for many centuries a small retired place, with its people engaged mainly in agriculture. That it was not considered of very great importance in the middle ages may be inferred from the fact that the old church is a deanery attached to Windsor, the Dean of Windsor being also the Dean of Wolverhampton. When it became a seat for trade, what raised it first into a manufacturing town is not so obvious as might at first be supposed. Doubtless the chief reason for the change which it has undergone, and for its present wealth and, I may say, commercial greatness, is the wealth of the district,—the natural wealth of the earth near and around. The townsfolk have followed rapidly the industry that has been called forth by the skill of the miner, and, taking up the treasure that he has dug out, have applied themselves to make it useful to the world at large. Thus, in the course of de-

velopment, certain specialties of occupation have been added to the town, and it has become a representative place in the realm. Towards this progress its position has given to it immense facilities. Few towns in England are more easy of access, few so commanding in regard to the country at large. A central locality, and elevated beyond most others, it looks over the broad lands of the kingdom towards all points of the compass, and if it were requisite to build a tower high enough to bring this half of our island under survey, the engineer would unquestionably select Wolverhampton for his foundations.

At the present time the town is divided into two boroughs, or, rather, into a municipality and a parliamentary borough. The municipality is limited to what, I think, was originally the parish of Wolverhampton; the parliamentary borough includes four large parishes, viz., Bilston, Sedgeley, Willenhall, and Wednesfield. In every one of these parishes the development of industry and of the population increases with wonderful rapidily,—with such rapidity, in fact, that now the houses of Wolverhampton represent in round numbers, and by number, the inhabitants of the place during the first year of the present century.

The present condition and occupation of the people of Wolverhampton are best understood by following facts, the results of the last census, 1861. In the town, at that date, the classes were divisible as described in the table:—

Wolverhampton in 1861.

Classes of Persons of or above Twenty Years of Age, with Proportional Numbers per cent.

Total . . .	66,282.	
Professional class . .	1,229 or	1·9 per cent.
Domestic class . . .	27,460 or	41·4 ,,
Commercial class . .	2,505 or	3·8 ,,
Agricultural class . .	3,271 or	4·9 ,,
Industrial class . . .	28,764 or	43·4 ,,
Indefinite (unproductive class)	3,053 or	4·6 ,,

If we turn from this general statement to an analysis of the principal branches of industry, we find the following series of facts bearing on the numbers of the principal industrial classes of the town specially enumerated:—

Occupations of Wolverhampton, including those for which it is most noted, and Classified according to Sex.

	Number of persons aged twenty years and upwards.	
	Males.	Females.
10. Gunsmiths	105	—
6. Engine and machine makers.	452	—
5. Japanners	272	250
2. Coal miners. . . .	3,808	—
4. Iron miners. . . .	620	—
7. Brass founders . . .	388	—
3. Locksmiths. . . .	2,293	—
1. Iron manufacturers . .	3,903	36
9. Nail manufacturers . .	181	55
11. Screw cutters and makers .	—	64
8. Tool makers . . .	206	—

Of certain of these industrial classes, Wolverhampton may be considered as containing more artisans than any other town; thus, in the iron manufactures, she stands above Bedwelty, and from three to four times above Birmingham; in coal miners she stands sixth in the list; in locksmiths she is richer than Penkridge, Walsall, and Birmingham put together; in iron miners she stands seventh; and in japanners she is first on the list; she is a little above Birmingham in the number of artisans in this last department, there being in Birmingham only 270 male and 239 female workers.

Judging from the number of artizans employed we should assign to Wolverhampton the following occupations, according to their local importance as branches of industry:—Iron manufacture, coal mining, locksmithing, iron mining, japanning, engine and machine making, brass founding, tool making, nail manufacturing, gunsmithing, and screw cutting. It will be observed that amongst the artizans no less than 400 women are employed in occupations which are considered generally as removed from women's work. Thus, 64 women are engaged in cutting screws, and 55 in making nails, while 250 follow japanning,—a branch of industry for females which might, I think, be very largely extended, as it is light, in many instances very delicate, and admitting of great refinement. There are, in addition to the above, several other important branches of industry in Wolverhampton, among which I will especially name the chemical works for the manufacture of chemicals and medicine. The firms of Mander and Weaver and of Bailey and Son will be at once recognised by Medical men. In these works various drugs are manufactured, I had almost said, for the empire, and I learned some curious facts respecting the use of certain drugs which we are generally accustomed to consider as falling out of the fashion. Thus Mr. Weaver, in taking me through his extensive manufactory, informed me that he alone manufactures not less than from ten to twelve tons of the golden sulphuret of antimony a-year, and from nine to ten hundredweights of calomel per week. As the calomel is used exclusively in medicine, it is rather important to know whither it goes. Fortunately, it does not all enter the stomachs of her Majesty's lieges in the mother country; a portion of it is sent to the colonies and to India, and a fair share of it is prescribed for dumb animals by their private Practitioners; indeed, as the home trade for calomel has not declined, and as the home consumption of it by man has declined in a remarkable degree, we are forced to the unpleasant inference that the use of cannibals—I beg pardon—I mean of calomel, in the treatment of the inferior creation is on the increase—an inference to which it is only necessary to direct the attention of Mr. Colam to insure the immediate application of his zealous exertions.

The aspect of Wolverhampton is precisely that which would be expected of a place that has risen rapidly, and has been added to house by house, and building by building, to suit the purposes of particular trades and occupations. There are no large and commanding edifices, as in older towns, comparatively few churches, and none of the great buildings for manufactories or warehouses such as are seen in many manufacturing districts of very much smaller size. There is no trace of tall chimneys, nor is the air charged with smoke, nor can the town as a whole be considered dirty. Picturesque old houses, such as those in Stafford, are wanting; but the new ones even look old, as though, like men who give themselves up too much to business, they had arrived at premature maturity. Art there is none in the construction of the streets, and I saw but one secular building that an artist would claim; and that one was a School of Art, which has recently, and not too recently, been erected. The Reading-room is, however, a spacious building, and within is handsomely decorated; and the Agricultural Hall, although not remarkable for its style, is an agreeable modern addition, and is arranged with a keen eye to the useful. The Infirmary is commanding, and the new Orphan Asylum, although not artistic, is a noble foundation.

On the surface, poverty does not seem to be broadly marked in Wolverhampton. I saw very few instances of staring squalid poverty in the streets, and even in the ragged schools (of which I shall have to say more in another place) the children were better clothed and evidently better fed than in any other ragged schools that I have seen. I learned, however, that an immense amount of poverty does exist, and that large numbers of the Irish poor are resident here. The occasion for poverty amongst those who are of the "manor born" is not overwhelming; there is ample work usually both for men and women who choose to learn one of the local trades; and large numbers of the artisans earn sums of money sufficient to enable them to live in the highest respectability. But there are numerous small masters who undertake work at a minimum price, and who in turn are undersold by their workmen. If a master can produce a gunlock or a coffee-mill for a shilling, straightway there are workmen who can produce the same thing for tenpence; and so in this form of competition much real wealth is lost, added to which the true meaning of the word "provident" has as yet penetrated a very little way into the minds of the industrial classes.

With all this it seemed to me—I beg very humble pardon if I am wrong in my estimate—that the desire to make money was the one absorbing principle of the good people of Wolverhampton, and that the man who accomplished the most in this direction was the most respected. Hence the beautiful appeared to me to lie under the foot of the useful, and a great many days promise to pass before the sciences and arts, other than those that are applied to local industry, will receive their full recognition. I ought, however, to do justice to the Corporation of the Borough for the labour which they are bestowing at the present time for the benefit of the town. I have before me the last annual reports of the several committees of the corporation, and they are most valuable documents, full of useful information, and showing an enlightened

and active public spirit. Amongst other things recommended is the appointment of a Medical Officer of Health—a recommendation that always conveys the idea of advancement. There is added also a tabular statement giving the number of inquests held; the number of children lost and found wandering in the streets; the premises found open and insecure by night; the public-houses; the number of fires in the year; and the statistics of crime. It would be well if every corporation in England would take these reports as models, and publish similar annual records. I shall have occasion further on to point out the various improvements that have been effected with regard to sewerage, the utilisation of sewage, and water-supply. Provisions are abundant, and, for a working town, luxuries hold a prominent place; these latter are specially called for by the colliers, who are a singular race of men. They, in the early part of the week, when they "play,"—that is to say, when they have their wages in hand—live in sumptuous style. They select the choicest viands that can be obtained, and will have whatever is in season. Ducks, geese, lamb, game, asparagus, everything that money can buy they purchase, so long as there is a sou in the locker; and not unfrequently they keep up their feast for three or four days; then they fall to work again, and live on anything they can get, faring as badly as they before fared sumptuously. Amongst all classes, but especially amongst the poorer, pork is the leading article in the way of animal food, and the pig market is, consequently, an important institution. I dwell on this fact because it has a significant bearing, as we shall see when treating of the Etiology of Wolverhampton, on some of the prevailing diseases of the locality. From these general statements respecting Wolverhampton, we may now descend to particulars, beginning with the Hospital.

(To be continued.)

APPENDIX TO MEDICAL HISTORY OF NORWICH.

Since my last paper, the *official* report of the Norwich Hospital for the year 1863 has been sent to me. From the references that have been made to this Institution, I had naturally feared that the results of the practice of its past year had been opposed to those previous results, so excellent by comparison, to which I directed the attention of the Profession in the first parts of this work. To my relief, I discover that the reverse is the actual fact. There has been no serious Surgical epidemic of any kind. Only two cases of erysipelas are recorded, and these were not fatal. Of pyæmia it is stated, that after secondary amputation of the leg in two cases, death occurred from pyæmia *and shock;* and it is further stated that one death, after the removal of a loose cartilage from a joint, occurred from pyæmia alone. Thus, during the year, after 302 operations, there was only one purely fatal case of pyæmia, it being impossible to say of cases complicated with shock that pyæmia was *the* cause of fatality.

In the course of 1863, the total number of operations performed has been 302; the deaths 9. The deaths *per cent.* (excluding minor operations) were 4·56, the death-rate being 1 in 21·8.

Attached to the report, the following tables are rendered; they are of interest, because they bring the statistical history of the Norwich Hospital fairly down to the present date:—

General Statement of Patients under Treatment during the Year 1863.

Average number resident daily throughout the year	123·12	Males 72·33, Females 50·79
Mean residence of each patient	41·34 days	
Rate of mortality over all the cases	5·24 per cent.	Males 5·28 per cent., Females 5·17 ,,
Death rate	1 in 19·07	
Medical cases:—		
Average number in Hospital	50·64	Males 23·72, Females 26·92
Mean residence	42·20 days	
Rate of mortality	6·62 per cent.	Males 7·33 per cent., Females 5·90 ,,
Surgical cases:—		
Average number in Hospital	72·47	Males 48·61, Females 23·86
Mean residence	40·76 days	
Rate of mortality	4·31 per cent.	Males 4·31 per cent., Females 4·32 ,,
Total number of in-patients admitted during the last 91 years		56,177
Total number of deaths during the same period		2,993
Average number of in-patients admitted yearly during the last 91 years		617·32
Average number of deaths yearly during the same period		32·89
Death per-centage per year during the same period		5·32
Death-rate per year during the same period		1 in 18·76

Table of Cases of Stone in the Bladder operated on at the Norfolk and Norwich Hospital, from January, 1772, *to December,* 1863.

Age.	Operations.	Cured.	Died.	Mortality.	Operations.	Cured.	Died.	Mortality.	Operations.	Cured.	Died.	Mortality.
1 to 10	330	308	22	1 in 15								
10 ,, 14	56	54	2	1 ,, 28	458	424	34	1 in 13·47				
14 ,, 20	72	62	10	1 ,, 7·2								
20 ,, 30	61	57	4	1 ,, 15·25	121	113	8	1 ,, 15·12	579	537	42	1 in 13·78
30 ,, 40	60	56	4	1 ,, 15								
40 ,, 50	58	47	11	1 ,, 5·27	193	157	36	1 ,, 5·36				
50 ,, 60	135	110	25	1 ,, 5·4					347	270	77	1 ,, 4·50
60 ,, 70	127	95	32	1 ,, 3·96	154	113	41	1 ,, 3·75				
70 ,, 80	27	18	9	1 ,, 3								
Total	926	807	119	1 in 7·78	926	807	119	1 in 7·78	926	807	119	1 in 7·78

Abstract.

Sex.	Operations.	Cured.	Died.	Mortality.
Both sexes	926	807	119	1 in 7·78
Males	884	767	117	1 ,, 7·55
Females	42	40	2	1 ,, 21

In the *Medical Times* of January 9 of this year I made the following remarks about lithotomy:—"The median (operation) itself—the most fatal of all in Norwich—has been more successful there, in forty-one cases, than any kind of cutting operation for stone performed perhaps in this century in the London Hospitals; since the deaths after the median at Norwich are at most but 1 in 3·72, or nearly 1 in 4, instead of 1 in 2, or even 1 in 1·88, as is common in London."

I will not insult the intelligence and good nature of the readers of this journal by any more elaborate refutation of the angry letter that appeared on the above quotation last week. *Ira furor brevis est,*—still anger need not nurse sophistry. In the above quotation, as will be seen, there is not a line implying that the absolute average mortality in London after lithotomy is 1 in 1·88. It says that the common mortality is 1 in *two*, or even 1 in 1·88. It is a statement based on Mr. Hutchinson's tables (in which tables I for one implicitly believe), and as a statement it is rigidly and solemnly correct. If any one remains who persists in reading the quotation as though it conveyed that the absolute rate of mortality in London is 1 in 1·88, I must leave that critic to his anger, his intolerance, his blindness, his pride, or any other of such amiable qualities, until time and reflection set him right—for the moment, argument, and even appeal to simple reason and fair play, is effort thrown away. No circumstances in the world can alter that fact.

SECOND THOUGHTS ON THE BRITISH PHARMACOPŒIA.

By A CHEMIST.

No. III.

THE compilers of the British Pharmacopœia have adhered to the precedent of the old ones in most points, and yet have introduced innovations which naturally excite the inquiry why they do not go further. If it were deemed advisable to describe the substances derived from vegetables by their physical properties, we may ask why not state their chemical constitution so far as analysis has revealed their proximate constituents? We may indeed infer from the preparations ordered in another part of the work, what is thought to be the best menstruum for extracting their virtues, but we consider that it would have been an improvement to state the fact in distinct terms directly following the descriptions in the Materia Medica. The same place would be most appropriate for placing the infusions distilled waters, decoctions, and tinctures when of simple substances, throwing together compounds and empirical formulæ at the end.

In both the Materia Medica list and among the prescriptions articles are inserted to which we can apply no milder term than that they are frivolous. Thus, we have *Sugar of Milk*, a substance of no earthly use in Medicine—was this intro-

duced in deference to Homœopathists?—Oil of Coriander, Gun Cotton, Fonsel Oil, etc.

Among the preparations we find directions for separating lard from pig's flare. Having given this recondite process, why is nothing said of a method of preserving lard from becoming rancid so as to be fit for ointments? Such methods are known and practised. Under the term ointments we have formulæ for certain quantities of calomel, of creosote, of galls, of turpentine, of sulphur, and of oxide of zinc, to be mixed with lard. Is it to be inferred that the same proportions are applicable to all cases? That it must not be varied by special prescription? If a Pharmacien prepares these forms for keeping, it is most probable that nine out of ten prescriptions presented at his counter will not precisely adhere to the proportions; and besides, the presence of these constituents with the lard will, in most cases, tend to produce chemical changes which will render the ointments worse than useless. The presence of very minute quantities of foreign matter will often render external applications injurious, no part of the system being more sensitive than the skin when abraded, wounded, or affected with eruptions. At one period glycerine was a highly irritating substance when applied externally. When a method was discovered for making it perfectly pure, it became the most soothing and calmative. If we thought the British Pharmacopœia susceptible of amendment, we should urge the addition of the compound of glycerine and starch, now so extensively used instead of ointment or lard.

On what principle, we might ask, is the quantity of Epsom salts and other materials to be used as enemas fixed? or why at all insert forms for suppositories? Every case wherein such appliances are demanded must require special material, and in peculiar quantities. They must be varied infinitely, and instead of six, which is the number given in the Pharmacopœia, hundreds of formulæ would not meet the exigencies of practice. It is most unaccountable that the notion of suppositories once occurring, the expressed oil of Cocao should not be mentioned. This substance, known as *butter of Cocao*, has peculiar physical properties, exactly fitting it to this use. We thought every Obstetric Practitioner in this country must be acquainted with it. In Spain and the Spanish colonies it is used very extensively as the basis of suppositories and skin applications.

Again, we have the following recondite information:—

Bread.—Bread made with wheat flour.

Chalk.—Soft, white, amorphous, native carbonate of lime.

Cotton.—The hairs of the seed of various species of Gossypium (*Linn.*) carded.

Flour—Wheat Flour.—The grain of wheat (triticum vulgare *Villars*) ground and sifted.

Hog's Fat.—The internal fat of the abdomen of the hog.

Sus Scrofa, *Linn.*

Milk.—Cow's milk.

Ox-bile—Ox-gall.—The fresh bile of the ox. Bos Taurus, *Linn.*

White of Egg.—The liquid albumen of the egg of Gallus Bancksia var domesticus, *Temmink.*

How very learned! We suppose the discovery of the authorities on which the names of these *rare* productions of nature are adopted constitute the laborious researches in natural history spoken of in the preface!

We have already noticed the remarkable absence of commercial information in the Pharmacopœia. Two or three others may be adduced—namely, 1. *Oil of Lemon* is ordered to be either expressed or distilled, its use being intended as a flavouring material. Now, any one having the slightest knowledge of the drug trade could have told the compilers that these are two quite dissimilar things. The expressed oil alone is applicable for flavouring, the distilled oil being used as *scouring drops*, as it is called—that is, as a less offensive substitute for turpentine, which it resembles—for removing grease-spots from silks, etc. Why not bug-poison, furniture polish, etc.?

2. Oil of Rosemary is ordered to be *English*, the fact being that English Oil of Rosemary is very rare and costly, and if a demand to any great extent should arise for it, could not be obtained. At the same time the foreign is for every purpose quite as good.

3. A process is given for separating the resin of scammony from other matters forming commercial scammony. This process is the subject of a patent belonging to the Professor of Chemistry to University College, and its use would subject the Pharmacien following it to legal proceedings. And after all, in the preparations of which scammony forms a part, the Pharmacopœia allows commercial scammony or the pure resin to be used indifferently! Indifferent whether the druggist makes *Conf. Scam.* with 20 to 40 per cent. more or less of the resin!

In Materia Medica we have Creta Preparata defined as *Carbonate of Lime* nearly pure. We should be glad to be informed where it is to be got? In every sample of many obtained from the best shops we have found so much silica as, in our opinion, to render Creta Pp. wholly unfit for internal exhibition; and yet we have it ordered in Mist. Cretæ, Pulv. Cretæ Arom., Pulv. Cretæ Arom. c. Opio, and Hydrarg. c. Cretæ. We advise the reader to try the easy experiment of dissolving Cretæ Prep. from any source in dilute hydrochloric acid.

Throughout the entire work, as we trace the alterations made in the formulæ of medicines and compounds used for subordinate purposes, we are struck by their frivolity and random character. Thus, mucilages of acacia, of starch, and of tragacanth and simple oxymel are to be made with new proportions of their several ingredients, without any apparent reason or advantage for the several changes.

In compound colocynth pill—powdered colocynth in substance is substituted for the extract—this new form, indeed, is the common *pil-cochia* of the shops, familiar to the public in poor neighbourhoods, and is a most coarse griping purgative. Have the members of the Council ever tried it on their own persons? We guess not! Do they intend to order the Pil. Coloc. Co. made with extract to be thrown away, and the above substituted for it?

From *Pulv. Cretæ. Co.* they have excluded the only astringent ingredient, *rad. tormentilla*, and thus greatly impaired its value; and, on the other hand, they have added *pulv. krameria* to *Pulv. Catechu Co.*, which already contained both catechu and kino, and therefore scarcely required another astringent ingredient. No notice is taken of a very elegant and convenient article in much use, namely, *Krameria Tannin*, a mixture as it exists in the root of tannic and krameric acids.

If we could believe that the simple preparations of vegetable medicines are founded on practical experiments, and not by "rule of thumb," we should pronounce them to be the most valuable part of the work. It is obviously of the greatest importance in practice to know how to exhibit in the simplest form such remedies, both for the benefit of the patient and our own satisfaction. So few can be given in substance; powdered barks, roots, and leaves being bulky, nauseous, and often fallacious from adulterations with "powder of post;" but if our infusions, decoctions, tinctures, etc., contain little or nothing of the substances intended to be exhibited, the Practitioner is deceived into false notions of the value of them as remedies, and does a great injustice to the patient who takes them. It is, perhaps, not too much to say that this matter is the corner-stone of the science of Medicine, so far as therapeutics is concerned. If we do not know with certainty the nature and amount of the remedies exhibited, experience is worthless, and it would be better to eschew drugs altogether, and allow Nature to take her course with all diseases.

We are unwilling to advance so serious a charge against the British Pharmacopœia in positive terms, but there is ground for strong suspicion that few, if any, of the formulæ for preparing vegetable remedies are based upon experiments. Brought together, they warrant the suspicion of being merely the result of verbal discussions and sheer guess-work.

How, we would ask, does it happen that only rectified spirits of sp. gr. 0·838, and proof spirit 0·920, are used as menstrua for dissolving the soluble parts of plants? Are there no instances of substances which would best dissolve in a mixture (for example) of equal quantities of Sp. Vin. R. and water, or in other proportions? In one case only is a weak spirit ordered, namely, in compound infusion of gentian; but this is an old empirical formula. And we may add another query,—can all, with propriety, be subjected indifferently to the same treatment? By mixing Sp. Vin. R. with various proportions of water, a number and variety of solvents are obtained severally suited to use with various vegetable substances. These are all ignored.

In the Continental Pharmacopœias many varieties of spirits as to strength are ordered.

The following tables embrace *all* the simple preparations of the several classes in the new Pharmacopœia:—

Tinctures.

A.—To be made with rectified spirit, sp. gr. 0·838. One pint to be used, and made up to a pint.

1°. The quantities irregular.

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Substance.	Quantity.	Treatment.
Arnica root	1 ounce	Macerate 48 hours. Percolate.
Capsicum	¾ do.	Do. do.
Castor	1 do.	Macerate 7 days.
Kino	2 do.	Do.
Nux vomica	2 do.	Do. 48 hours. Percolate.
Indian hemp extract	1 do.	Dissolve.

2°. Quantities the same. 2⅓ ounces to the pint.

Substance.	Treatment.
Aconite root	Macerate 48 hours. Percolate.
Assafœtida	Do. 7 days.
Tolu	Do. 6 hours.
Myrrh	Do. 48 hours. Percolate.
Ginger	Do. do. do.

B.—Tinctures ordered to be made with proof spirit (five parts rectified, three parts water), sp. gr. 0·920. One pint of spirits to be used, and sufficient added, at the end of the operation, to make *one* pint of tincture.

1°. The quantities irregular.

Substance.	Quantity.	Time and manner.
Socotrine aloes (ex. liquorice, 1 ounce)	½ ounce.	Macerate 7 days.
Orange peel	2 ounces.	48 hours, and percolate.
Belladonna leaves	1 ounce.	Do. do.
Cantharides	¼ do.	Do. do.
Yellow bark	4 ounces.	Do. do.
Saffron	1 ounce.	Do. do.
Opium	1½ ounces.	Do. do.
Ergot	5 do.	Do. do.

2. The quantities both of the menstruum and substance being the same—namely, 2⅓ ounces to the pint.—All to be macerated 48 hours, then percolated, and made up to a pint:—

Buchu, Columbo, Cascarilla, Catechu (with Cinnamon, 1 ounce), Chiretta, Cinnamon, Cochineal, Colchicum seed. Hemlock fruit, Digitalis, Galls, Henbane, Jalap, Stramonium seeds, Lemon peel, Lobelia, Hop, Savin, Squills, Senega, Serpentary, Krameria, Valerian.

Infusions.

A.—To be made with boiling distilled water, 10 ounces; strain.

Substance.	Quantity.	Time to be infused.
Chamomile flowers	½ ounce.	15 minutes.
Orange peel	Do.	Do.
Buchu leaves	Do.	1 hour.
Columbo	Do.	Do.
Cloves	½ do.	½ hour.
Cascarilla	1 do.	1 do.
Catechu (cinnamon, 30 grains)	160 grains.	½ do.
Yellow cinchona bark	½ ounce.	2 hours.
Digitalis leaves	30 grains.	1 hour.
Dulcamara	1 ounce.	Do.
Ergot	¼ do.	½ do.
Rhatany	½ do.	1 do.
Linseed (liquorice, 60 grains)	160 grains.	4 hours.
Hops	½ ounce.	2 do.
Matico	Do.	½ hour.
Rhubarb	¼ do.	1 do.
Red rose petals (sulph. acid dil. f. ʒj.)	Do.	½ do.
Senega	½ do.	1 do.
Senna (ginger sliced, 30 grains)	Do.	Do.
Serpentary	¼ do.	2 hours.
Uva ursi	¼ do.	Do.
Valerian	120 grains.	1 hour.

B.—In 10 ounces of distilled water at 120°.

Substance.	Quantity.	Time to be infused.
Chiretta	¼ ounce.	½ hour.
Cuspasia	½ do.	2 hours.

C.—In 10 ounces of cold distilled water.

Substance.	Quantity.	Time to be infused.
Quassia	60 grains.	½ hour.

Infusion of Kousso.—Kousso, in coarse powder, ¼ ounce; boiling distilled water, 10 ounces. Infuse 15 minutes; not to be strained.

Compound Infusion of Gentian (rather a weak tincture).—Gentian, ¼ ounce; bitter orange peel, 30 grains; coriander, 30 grains; proof spirit, 2 ounces. Infuse 2 hours; add 8 ounces of water. Infuse 2 more hours, and strain.

Decoctions.

	Proportion.		Boil.	To make
Iceland moss	1 oz.	Water 1½ pts.	10 min.	1 pt.
Cinchona (yellow)	1 oz.	„ 1 pt.	10 min.	16 oz.
Pomegranate bark (fresh)	2 oz.	„ 2 pts.		1 pt.
Logwood (cinnamon, 60 grs.)	1 oz.	„ 1 pt.	10 min.	16 oz.
Barley (well washed)	2 oz.	„ 1½ pts.	20 min.	
Poppy heads	4 oz.	„ 3 pts.	10 min.	32 oz.
Pareira	1½ oz.	„ 1½ pts.	15 min.	1 pt.
Oak bark	1½ oz.	„ 1½ pts.	10 min.	
Sarsaparilla (not split)	2½ oz.	„ 1½ pts.	10 min.	
Broom tops	½ oz.	„ ½ pt.	10 min.	8 oz.
Dandelion root (dried and sliced)	1 oz.	„ 1½ pts.	10 min.	1 pt.

Compound Decoction of Sarsaparilla.—The form for this important medicine, as of the simple decoction, is adopted from the Dublin Pharmacopœia, with the simple addition of half an ounce of sarzæ. The Dublin form had two ounces, the British has two and a-half ounces to the pint. This augmentation of quantity is entirely uncalled for; in fact, a pint of water will not take up much more than half the extractive matter of even two ounces of the root. Actual experiment will show that two ounces of the root treated according to the directions with a pint of water will not be exhausted. On treating the same root with another pint of water, a considerable portion of extract will be obtained, not sensibly differing from the first. The addition, therefore, of the half ounce is simply adding to the waste, and we cannot avoid the inference that it was not made on any experimental ground, but simply from mere whim. If there is any difference between the first and last extracts we are entirely destitute of any testimony to the fact.

(To be continued.)

THE NEW INFIRMARY AT LEEDS.

(From our Special Correspondent.)

On Tuesday last the foundation-stone of a new Infirmary was laid at Leeds by the President of the Building Committee—one of the most active and liberal townsmen of Leeds—James Kitson, Esq. The ceremony naturally excited great local interest, but we refer to the matter in its wider acceptation, for, in truth, there are numerous points of professional and general importance connected with it.

We may premise by stating that the Infirmary at present at Leeds, now called the "old Infirmary," and which remains until the new one is ready to take its place, has for some years past been considered a doomed building. In 1768 the foundation-stone of the old Infirmary was laid, and three years later, viz., on March 1, 1771, the institution was ready to receive the sick poor. From then until now its doors have been open, and more than 280,000 persons have been received into it. It has also been applied to clinical purposes, the students of the Leeds School of Medicine going to it for their practice of Medicine and Surgery. On the original plan of the old Infirmary various modifications have been made, and two new wings have been added; still it was felt to be ineffective; it was not sufficiently large for the present and pressing wants of Leeds, and it did not admit of being extended or of being improved upon by alteration. Hence, after long seasons of discussion and much conflict of opinion, it was determined to build a new Infirmary on approved principles, and on a new site.

The new Infirmary is laid in the north-western part of the town, facing Great Georges-street: it is about half a mile distant from the centre of the town, and is away from the busy manufacturing parts. Before any plan was drawn out, the Building Committee very wisely determined to institute an inquiry as to the best construction of Hospitals; and Dr. Chadwick, the senior Physician to the present Infirmary, accompanied by Mr. Gilbert Scott, R.A., the architect, went to the Continent, and visited the Hospitals of Paris, Brussels, and Bruges.

The report made by Dr. Chadwick and Mr. Scott led the Committee to fix upon the pavilion principle for their new building. The Infirmary will consist, therefore, of five pavilions—two in the front and three behind, with an open court

between. Each pavilion will contain two wards—one beneath, the other above. The wards, lighted by windows on each side and at their extreme ends, are to receive thirty beds each, nearly two thousand cubic feet of air being allowed to every patient. Each ward is distinct, and can only be entered from the corridors, which lead into the open air. At the foot of every ward there is a hydraulic lift for raising patients: thus in all accidents the patients can be carried into the grand entrance without being raised a step, and being placed on the lift full length, can be gently hoisted into the ward without inconvenience or undue pain. Any one who has seen the methods by which patients with fractured limbs are commonly taken into Hospitals—now on stretcher, now in a chair, again on the back of some strong man, or in the arms of two or three weak men—will appreciate the advantage of the lift fully.

In its general outline the new Infirmary will resemble the Hospital at Bordeaux and the Lariboisière; but the character of the ground has prevented the plans of those Hospitals from being absolutely followed out, the site being narrow and long, rising rapidly from front to back. This apparent disadvantage has, however, been seized upon by Mr. Scott with great foresight and skill, and has been used by him to introduce an actual improvement in the construction; he has arranged in the front part to get a second story below the ground story of the Hospital itself, in which all the offices for administration, and all the out-patient departments are placed. In this extra story are rooms for the House-Surgeon, for the matron, for students, for the committees and the like. Another improvement is introduced into the pavilions: at their further ends there is a large central window, and from the angles at the ends there are projections which, to use a technical phrase, are "canted," so as to make each corner of the ward take a kind of octagon form. In these octagons baths and water closets are placed.

The wards are to be warmed by central open-grate stoves, with descending flues, so that the air admitted will flow downwards in its escape by the stoves. This is a good feature, and of importance specially in the Surgical wards, where wounds have to be dressed, and where, from the level of the bed, organic matter is cast off. Another internal improvement worthy of notice is the introduction into the wards of shafts for the immediate removal of dirty bed linen and dressings. These, thrown into the shaft, fall into a part of the Hospital beneath, near to the laundry, which has no connexion whatever with any ward. The ventilation is entirely on the natural plan. The arrangement of the windows allows the air to traverse from side to side and to move freely in every direction. The building will be of pressed brick, with stone for adornment.

There is thus now laid in Leeds the foundation-stone of a model Hospital. There are certain accessories yet to be provided, such as a hot-air bath and large convalescent rooms; but taking it all in all, and speaking by comparison, the Leeds Infirmary will, when completed, be the largest and nearest approach to the model Infirmary of the kingdom, and we doubt not that it will be studied generally as a model. It would be a feature to have the roofs of the pavilions turned into airing grounds, if that could be done; and it would be another feature to arrange for the actual treatment of pyæmic cases in the open air on the pavilions, during seasons when the weather would permit of the carrying out of this only true treatment of this Surgical disorder. A lift from the ward to the airing-ground of the pavilion would carry the worst case easily into the air, and there the sufferer might have all the advantage of an unpolluted atmosphere, he himself being, in turn, no cause of pollution.

It will be an interesting subject of research, when the new Hospital comes into use, to determine the actual influence of Hospital accommodation on mortality. In the old Infirmary, which is indifferently constructed, the mortality has been rather high after operations—viz., one death in rather more than seven and a-half cases, or 13 per cent. in some years. Now, then, will come the test; the locality will be virtually the same, the Surgery the same, the class of cases the same in the new Hospital as in the old. Query, will the mortality be less in the Pavilion Hospital? The sanitarians will say yes! Let them wait and see, for the experiment will be crucial. Leeds compared with Leeds; no quibble about the class of case; no possible argument to the effect that an amputation or a lithotomy in one town, say London, is a more serious operation than it is in another town, say Leeds, but everything so clear that he who runs may read.

The ceremonial of laying the foundation-stone was admirably conducted, and excited the warmest enthusiasm. In his speech to the crowds assembled around him, Mr. Kitson referred to the labours of the Medical Profession in terms which did equal honour to his head and to his heart.

"We cannot," he said, "look back upon the past management of the Leeds General Infirmary without great admiration and respect for the characters of the many excellent men who have been and are connected with it Professionally and otherwise. To the generous and assiduous care which has continuously been devoted to its management; to the laymen who have given their time; and to the high Professional ability with which the Medical officers have devoted themselves to its service, it is owing that the Institution has obtained its deservedly high position. I hope it may be considered a pardonable but a honest boast if I say that amongst the gentlemen who are now and have been Professionally connected with this Institution, we find those who have deservedly taken rank amongst the highest ornaments of a Profession to which society under its most trying circumstances is so deeply indebted for relief."

After the stone was laid, a luncheon was provided by the chairman in the Town Hall, at which 180 guests were present. Amongst them were ministers of every denomination in Leeds, the members for the borough, and large numbers of the Medical men. On the part of the Medical officers of the Infirmary, Dr. Chadwick replied in one of the most brilliant and effective speeches we have ever heard. Modestly, and yet fairly, he defined the true position of the Physician and Surgeon to these charities. He expressed that amongst those who work together at Leeds there is but one object and one mind, and he promised that in this generation, at all events, the Leeds Infirmary should not fail or fall in its Medical and Surgical departments.

In bringing to a close this notice, we may mention that on Monday Mr. Teale and Mr. Samuel Smith were elected Consulting-Surgeons to the Infirmary, that Mr. Nunneley, Mr. Claude Wheelhouse, and Mr. T. P. Teale, jun., were elected Surgeons, and Dr. Allbutt Physician, in place of Dr. Hardwicke. The munificent sum of £65,000 has been already collected towards the expenses of the new building.

GENERAL CORRESPONDENCE.

BRITISH MEDICAL TRADESMEN.

LETTER FROM MR. WILLIAM OGLE.

[To the Editor of the Medical Times and Gazette.]

SIR,—As a member of the British Medical Association, I thank you for your article on British Medical Tradesmen.

I am, &c.

Derby, March 26. WILLIAM OGLE.

CANDLER *v.* PEAT DEFENCE FUND.

*** We have received the following letter from the Peat Defence Fund Committee. We need not say a word to support their appeal, which we hope will meet with a hearty response from the Profession.—ED.

[To the Editor of the Medical Times and Gazette.]

SIR,—As Committee of the defence fund in the above iniquitous case, we beg to make, through your columns, a further appeal to the Profession.

The bill of costs sent in to Mr. Peat amounts to £152 17s. 6d., and we consider the charges fair and reasonable. Since the termination of the suit, Candler has become bankrupt, and the whole of the above charge consequently falls upon Mr. Peat. Candler, in his statement before the Colchester Medical Society, admitted that the prosecution was undertaken as a speculation.

As members of the Medical Profession, we consider that it will reflect great discredit upon us, as a body, if we permit one farthing of these costs to fall upon Mr. Peat. The question is not one confined to the members of the Profession residing in our county or neighbourhood, but it bears upon every Practitioner in the United Kingdom. At present, the subscription does not reach half the amount of the costs. Had we not, in the first instance, limited the amount of individual subscription, the sum would in all probability have been generously raised by a comparatively small number of the Profession.

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We considered, however, that the more widely the area was extended, the greater would ultimately be the protection afforded to those who may be placed in a similar position to Mr. Peat; for it is quite certain that if the law is not altered so as to secure costs in case of failure of these iniquitous speculations, a very large and comprehensive union of Medical men will be necessary to protect the interests of the Profession.

We sincerely hope that this second appeal will be sufficient. Any amount of subscription, or even second sums from those who can afford it, will be most gratefully accepted. Amount already received, £73 9s. 6d.

C. R. Bree, M.D., Treasurer, Colchester.
A. Wallace, M.D., Colchester.
R. S. Nunn, Colchester.
J. H. Partridge, Colchester.
C. P. Mingaye, Dedham, Colchester.
D. P. Morris, Secretary, Colchester.

To any of whom subscriptions may be sent.

Colchester, March 23.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 22.

Mr. Partridge, President.

A paper, by Mr. Chas. H. Moore, was read on

A NEW METHOD OF PROCURING THE CONSOLIDATION OF FIBRIN IN CERTAIN INCURABLE ANEURISMS.

WITH THE

REPORT OF A CASE IN WHICH AN ANEURISM OF THE ASCENDING AORTA WAS TREATED BY THE INSERTION OF WIRE.

By Dr. Charles Murchison.

In this joint paper the theory of the operation was first described by Mr. Moore. Dr. Murchison furnished the report of the case, with Medical comments upon it. For the Surgical remarks, Mr. Moore was alone responsible.

In February, 1863, Mr. Moore had been led to review the conditions of such aneurisms as could not be Surgically treated through the artery, and had devised a method of producing consolidation of them in accordance with the mode of their natural cure.

The principles involved in this method were—1, that large aneurisms can only be benefited by the deposition of fibrin within them; 2, that the natural means of obtaining fibrin from the blood are inadequate, because it can only settle in layers on the wall; 3, that in the central part of an aneurism there is a large quantity of blood with fibrin ready to collect on any apt material; 4, that fibrin may be elicited from arterial blood by exposing a foreign body in it. Two cases were quoted in which this had occurred: one, an instance in which gangrene of the leg had resulted from plugging of the arteries by fibrin detached from a needle in the left ventricle; the other, that of a sailor, who died three days after being shot, and in the interior of whose ascending aorta was a bullet imbedded in fibrin.

The foreign body which, according to our present knowledge, would produce least irritation was wire. If a large quantity were coiled in an aneurism, it would attract fibrin, as the twigs do in whipping freshly-drawn blood, support the mass which it entangled, and lead to the cavity of the aneurism being eventually filled. The wire might be passed in through a small canula, with care not to leave the last end in the minute wound, and not to direct a coil into the orifice of the artery.

Only a sacculated aneurism could be so treated, not one which had two orifices, since fragments of fibrin would be broken off by the force of the current. Brasdor's operation might be previously required in some parts. This danger might be incurred in a sacculated aneurism also, if wire enough were not introduced, because of the large intervals which would be left between the few coils of wire. The wire would remain in the solidified aneurism, and be harmless.

Mr. Moore then described the operation by which the foregoing proposal might be carried out.

Report of a Case of Saccular Aneurism of the Ascending Aorta projecting through the Anterior Wall of the Left Side of the Chest.

Daniel D., aged 27, became a patient at the Middlesex Hospital, under Dr. Murchison, on November 10, 1863. Eight years before, he began to suffer from palpitations and dyspnœa, and after some months he had an attack of hæmoptysis. The hæmoptysis recurred at intervals, and in November, 1862, he first noticed a pulsating swelling in front of the chest, to the left of the sternum. This increased with considerable rapidity, and the patient now became subject to severe attacks of angina pectoris. At the time he first came under observation, the tumour was situated in the angle formed by the left clavicle and the left margin of the sternum; it measured ten inches in circumference at its base, and projected about two inches from the wall of the chest; its surface was rounded, and tolerably uniform, except at the upper part, where there was a tendency to point. Over the whole surface of the tumour distinct pulsation could be felt, each beat corresponding to the impulse of the heart. Nothing resembling an aneurismal bellows-murmur could be heard; but both cardiac sounds, and particularly the second, were louder over the tumour than at the base of the heart. There was dulness on percussion to the right of the tumour, over a space measuring two inches transversely, and three inches from above downwards. The apex of the heart could be felt beating between the fifth and sixth ribs. The cardiac dulness was slightly increased, but the sounds heard on auscultation were normal. There was no inequality of the arterial pulse on the two sides of the body. The voice was normal. The patient had an occasional cough, and expectorated a viscid muco-purulent matter, but there was nothing peculiar in the character of the cough. Over the whole of the left side of the chest there was comparative dulness on percussion, with coarse, at some places tubular breathing, and sub-crepitant râle. On the right side of the chest the percussion was clear and the breathing puerile. The appetite and digestion were good, and the bowels regular. There was no disphagia, and no pain or tenderness at any part of the spine. The pupils were of normal and equal size. On Nov. 20, and again on Dec. 28, the urine was ascertained to be free from albumen.

After the patient was admitted into the Hospital, on the 20th of November, the attacks of angina almost entirely ceased. The pulse varied from 104 to 116 when the patient sat up, but would fall to below 100 when he lay down. The size of the tumour continued to increase, until, on the morning of January 7, 1864, it measured 16¾ inches at its base, and projected 2¾ inches from the wall of the chest. The tendency to point at its upper part became more decided, and the integuments at this part were much attenuated, and assumed a dusky-red discoloration, while occasionally they were the seat of pricking pains, and were slightly tender. These changes were most marked during the last week of December and the first week of January. The patient's general health notwithstanding did not suffer. He ate and drank well; he got up daily, and walked about the ward. On the evening of January 6 he played a game of draughts with another patient, and on the following morning he was up and walking about as usual.

Early in January it became obvious that the bursting of the aneurism through the integuments could not long be delayed. It was accordingly resolved to recommend to the patient Mr. Moore's proposed operation. During the month of December this operation had been carefully considered, but it was then deemed unadvisable to have recourse to it. It was now explained to the patient that the procedure in question offered some chance of prolonging his life, although in itself it was not free from danger. The patient at once assented, and the operation was performed on January 7, at 1·30 p.m.

The operation consisted in the introduction of a quantity of fine iron wire into the aneurism, with the object of inducing coagulation. A small pointed canula was inserted into the tumour, and the wire was passed in through this without difficulty. The operation occupied one hour, and the quantity of wire introduced was twenty-six yards. It gave rise to no pain or inconvenience excepting a slight and transient feeling of faintness. The quantity of blood lost did not exceed half a fluid ounce.

The immediate effects of the operation were a reduction of the pulse from 116 to 92, an almost complete cessation of the pulsation in the tumour, and a diminution in its size. Immediately before the operation the circumference of its base was 16¾ inches; at the close of the operation it was 16 inches.

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These changes began to be noticed soon after the commencement of the operation, and became more marked as it was proceeded with. At 11·15 p.m. the patient was asleep, and his pulse was only 78. He slept comfortably during the night, and had no bad symptom until the following morning.

On January 8, at 9 a.m., the patient was seized with a fit of rigors lasting three-quarters of an hour, and followed by great pain in the back of the neck and some pain in the tumour. At 1 p.m. the pulse had risen to 144, and was full and bounding. The action of the heart was tumultuous, and all the arteries of the body could be felt throbbing with considerable force; but there was no difference in the force or volume of the beat on the two sides of the body. The patient complained of great pain in the tumour when he moved. The tumour was already somewhat larger than before the operation, and the dusky discolouration was of a deeper tint. There was intense thirst and great restlessness; the skin was dry and very hot; and the respirations were 40. At twenty minutes past 1 p.m. the patient was bled to the extent of eighteen ounces, and at half-past 3 p.m. twelve ounces more blood were abstracted. After the second bleeding twenty minims of Battley's sedative solution were administered.

From these measures the patient derived temporary relief, but he had a restless night, and at half-past 6 a.m. of the following morning (January 9) he had a second attack of rigors. At 1 p.m. he had a third attack. At half-past 1 he was in great distress, owing to pain in the tumour and at the back of the neck. The tumour was extremely tense and decidedly tender, particularly at its upper part. Its circumference at the base measured $1\frac{3}{4}$ inches more than before the operation. Distinct pulsation could be felt again at its upper part. The pulse was 136 and soft; the action of the heart was less tumultuous, and there was no abnormal cardiac sound. Large and repeated doses of opium and digitalis were now commenced. At half-past 10 p.m. the pulse had fallen to 126, but the patient complained of being afraid to cough on account of a severe jerking pain in the tumour which the effort to do so always induced.

On January 10, at 10 a.m., the patient had taken seventy-three minims of tincture of digitalis, and the equivalent of almost ten grains of opium, during the preceding twenty-one hours, and the result was that he was in less pain, the pulse had fallen to 104, and the tumour was slightly reduced in size, its circumference being half an inch less than on the preceding day. At 7.30 p.m., however, he was seized with a severe burning pain in the tumour, and a feeling of tightness as if he were going to burst. The tumour was larger and more tense than ever; the pulse rose to 132; the heart's action was again more impulsive, and there was intense thirst. To-day it was noted for the first time that the pulses in the right temporal and radial arteries were slightly fuller than in the corresponding vessels on the left side.

Opium in large and repeated doses, along with digitalis, was persisted with. In the course of two days and a half (commencing on January 9) as much as the equivalent of twenty-seven grains of opium was administered. The treatment, however, failed to give relief. The tumour increased rapidly in size, and on the 11th distinct pulsation could be felt at several parts of its surface. The radial pulse was 128, small and compressible, and still fuller on the right side. The beat of the right anterior tibial artery was also decidedly fuller and stronger than that of the left. The cardiac impulse was extremely feeble. The respirations were performed chiefly by the diaphragm and the muscles on the right side of the chest; the left side of the chest was almost motionless. The whole of the left side of the chest in front, unoccupied by the tumour, was dull on percussion, and no respiratory sound could be heard on this side, except immediately below the clavicle. Brandy and other stimulants were given, but without any decided result.

On the morning of the 12th the patient was evidently sinking. The pulse was about 136, but was so weak as to be counted with difficulty. The circumference of the tumour at its base was now $3\frac{1}{2}$ inches more than before the operation, and the urine passed during the night was found to be loaded with albumen. At 11 a.m., four days and twenty hours and a half after the operation, the man died.

An autopsy was performed a few hours after death. The walls of the external tumour were formed by the integuments and fibres of the pectoral muscle, infiltrated with serum. They were nowhere less than a quarter of an inch in thickness. The skin covering a great part of the tumour presented a deep livid hue. The interior of the tumour was filled, for the most part, with a fibrinous coagulum, enveloping and imbedded in the coils of wire, and firmly adherent to the surrounding walls. The rest of the cavity contained fluid black blood. The interior of the outer tumour was nowhere lined with a prolongation of the arterial coats; but it communicated with the proper aneurismal sac within the chest, by two large openings in the first and second left intercostal spaces, the intervening rib being bare and eroded, and at one place broken through. The aneurismal tumour within the chest was about the size of a man's fist. It lay immediately behind the sternum; it encroached slightly upon the upper lobe of the left lung, and inferiorly it rested upon the right auricle. It was partially filled with a fibrinous coagulum, which was continuous with that in the outer tumour, and was adherent at one part over a space measuring about one-third of an inch in diameter. It communicated by a circular opening, scarcely so large as a sixpence, with the ascending aorta. Through this opening a clot projected from the aneurism into the vessel, and extended downwards into the heart, and upwards into the arch. The greater part of this clot was evidently of post-mortem date; but part of it, close to the opening, was pale, firm, and laminated. There was considerable atheroma of the coats of the thoracic aorta. The pericardium contained about eight ounces of turbid serum, and its opposed surfaces were coated with a thin layer of recent lymph. The upper part of the parietal pericardium presented a patch of livid discoloration, about the size of a florin; and at the centre of this patch the cavity of the pericardium was merely separated from that of the aneurism by a delicate membrane. It was at this part of the aneurism that the coagulum was adherent. The heart was slightly hypertrophied. Its valves and muscular tissue, and likewise the coronary arteries, were healthy. The left lung was everywhere firmly adherent, and its pleura much thickened. On section, numerous cavities were observed, evidently resulting from dilatations of the bronchial tubes. In the intervening spaces a firm fibrous tissue took the place of the normal vesicular structure. The right lung was for the most part healthy. Both kidneys contained a number of circumscribed abscesses, varying in size up to that of a small pea. A cluster of six of these small abscesses was found at the apex of the left kidney. In the cortical substance of both kidneys a number of patches of yellowish deposit, of a large size, but less defined outline, were also observed. On microscopical examination, this appearance appeared to be due to the presence of a granular exudation deposited between the uriniferous tubes. The liver was large and fatty. The other parts of the body could not be examined.

After recording the history and post-mortem appearances of the case, Dr. Murchison enumerated some of the more important features of clinical interest, independent of the operation, which it presented.

In his concluding remarks, Mr. Moore referred first to the circumstances of the operation, and to its early effects, which were highly satisfactory. So much fibrin appeared to have collected at the end of an hour that the pulsation of the tumour and its sharp second stroke were no longer perceptible; the aneurism had much diminished in size; the pulse, which, notwithstanding medicines, had beat 112 for weeks previously, and was 120 before the operation, had fallen to 92, and at night was about 80. This unlooked-for abundance of the fibrine, accumulated not by an inflammatory, but by a mechanical process, was an unprecedented circumstance. Its effects could not be foretold. It appeared to have caused local inflammation and the rigors, with great accleration of the pulse. No aneurism could long resist such a pulse. Death had probably resulted from acute pericaridtis, which was induced, not by continuity with the inflammation outside the chest, since neither the inner aneurism nor the pleuræ were inflamed, but incidentally by the imminent bursting of the intra-thoracic aneurism into the pericardium. No fragments of the clot of fibrin, large enough to be detected by the naked eye, had been detached, but microscopic portions were supposed to have existed in the kidneys. Neither the old nor the recent disease of the kidneys had actually caused death, which was due to the changes about the chest, and was, through the pericarditis, an indirect and not inevitable consequence of the operation. No coil of wire had passed through the opening of the aneurism.

Three facts appeared to Mr. Moore to justify a repetition of the operation, or of some modification of it:—1. The separation of fibrin upon the foreign body, and its rapid deposition. 2. The exemption of the inner aneurism from inflammation, probably to be accounted for by its possessing a lining mem-

brane, which the outer cavity had not. 3. The firm adhesion of the clot to the wall.

Not having yet thought of a more suitable foreign body than wire, he had but two modifications of the operation to suggest:—1. The introduction of a smaller quantity. The objections to this had already been pointed out. 2. The use of slender needles as temporary means of procuring the consolidation of the fibrin. The safety of this must depend on the number of needles which might be inserted, the gentleness with which they should be withdrawn, and the period at which fibrin so procured should acquire a sufficiently firm attachment to the wall of the aneurism to allow of the artificial support of the needles being dispensed with.

The PRESIDENT inquired if the reading of Mr. Moore's concluding remarks was essential, the time of the Society's meeting having nearly expired.

Mr. MOORE said he should be happy to spare the Society from the reading of his remarks in full, and very briefly recounted their principal points. In answer to another question by the President, Mr. Moore observed that the method of treatment which he had suggested differed from that by galvano-puncture in that the latter caused consolidation of the entire mass of the blood between the points of the needles, which was objectionable, as not being permanent and curative; whilst the former elicited fibrin from the blood, which was the material of natural cure.

Dr. COPLAND remarked that the case was one of very great importance, but it proved nothing in favour of the mode employed for coagulating the blood in an aneurismal tumour. It would be observed, however, that the wire had not been introduced into the inner aneurism, and this to some extent might explain the failure of the proceeding. Moreover, he thought that no such plan could supersede the treatment of aneurismal tumours by diet and medicine, which he believed in most instances would be found more effectual in coagulating the blood. The case before the Society might, however, serve as a guide to Surgeons for the future; but the proceeding should not be resorted to so long as diet and medicine could afford benefit.

Mr. HILTON wished to ask Dr. Murchison what he considered to have been the cause of the patient's death?

Dr. MURCHISON stated, in reply, that several causes had, in his opinion, contributed to the fatal termination. In the first place he was inclined to put the contamination of the blood with inflammatory products derived from the tumour giving rise to pyæmia and embolism. The purulent deposits found in the kidneys left no doubt as to the existence of pyæmia. These deposits had been carefully examined microscopically by himself and by Dr. Cayley (the pathologist to the Middlesex Hospital), and had been found to present all the characters of pyæmic abscesses. It was true that they were small, the largest being about the size of a small pea; but this circumstance was at once accounted for by the short time that the patient had survived the supervention of the symptoms of pyæmia. An important observation had been made in this case on the third and fourth days after the operation—namely, a very appreciable difference in the force and volume of the arterial pulse on the two sides of the body. This condition had not existed previously, and was not accounted for by the anatomical relations of the aneurismal tumour. No opportunity had been afforded of examining the arteries of the limbs after death, but the observation referred to, taken in connexion with another morbid appearance found in the kidneys—namely, that of extensive inter-tubular deposit of a recent nature—led him to infer that embolism was one of the results of the operation. An observation had been made in the case which seemed to clinch, as it were, the development of these lesions found in the kidneys at a date posterior to the operation. Before the operation the urine had been free from albumen, but the urine passed on the day before death had been loaded with albumen. It was worthy of remark that the anatomical characters of the aneurism were less favourable to the contamination of the blood with fibrinous flakes and inflammatory products than they would probably be in most aneurisms where the operation would be thought of. The orifice of communication with the aorta was small—not so large as a sixpence; and the whole of the proper sac of the aneurism within the chest had been interposed between the aorta and the external tumour, into which alone the wire had been introduced. Nevertheless, the blood had become contaminated. With regard to the pericarditis, it was a subject for speculation how far it was pyæmic in its origin, or whether it was due to a propagation by continuity of the inflammatory process from the sac of the aneurism, or resulted from the threatened bursting of the aneurism into the pericardium. The last explanation might be the true one; but while it was uncertain if the bursting of an aneurism into the pericardium was usually preceded by pericarditis, there could be no doubt that the pyæmia existing in this case would predispose strongly to pericarditis excited by any cause; and the fact that the pyrexia was ushered in with repeated attacks of severe rigors indicated that the pyæmia, rather than the pericarditis, was the first link in the chain of morbid events. Moreover, it was probable that the pointing of the aneurism in the direction of pericardium was determined by the operation. Although an aneurism of the thoracic aorta often burst spontaneously into the pericardium, it was well known that this was a very rare event when there was an external tumour. The condition of the circulation on the day after the operation—a full, bounding pulse of 144—was extremely favourable to the giving way of a weak portion of the aneurismal sac. The causes of death, then, appeared to be pyæmia and pericarditis supervening on the operation.

Mr. FERGUSSON regretted that this case had been detailed with so much unnecessary minuteness, thereby occupying so much time that there was no opportunity of discussing it. It should have been condensed into one-fourth of the space which it occupied. (Hear.) The case, however, was one of great interest, and the Society must feel grateful to Mr. Moore and Dr. Murchison for the description of a case and of a mode of proceeding never before put into practice on the living body. He regretted that the experiment had not been carried out to its full extent, the wire not having been introduced into the aneurism proper, so as to produce a more direct influence of the heart's action on the blood. He considered the proceeding would be justifiable in cases similar to the one related, and in those aneurismal tumours of a more Surgical character in which the mode of treatment to be pursued did not clearly suggest itself to the Surgeon. The plan of passing wires and needles into aneurismal tumours had been suggested as much as thirty years ago; but he had never heard that it had been actually carried into practice until the present case.

Mr. MOORE, in reply to the observations of Dr. Copland and Mr. Fergusson, said that in the performance of the operation he had taken particular care not to introduce any of the wire into the inner aneurism, both because he had considered it essential to keep the distribution of it within that cavity which he had explored with the probe, while of the inner aneurism, and of what might become of the wire in it, he knew nothing; and also because, had the patient survived and required it, the treatment of the inner aneurism might have been the subject of subsequent consideration. He bowed to the opinion enunciated by Dr. Copland, that no aneurism should be submitted to this treatment so long as Medical and dietetic measures were of service; and he should not think of recommending or adopting it except when these measures had lost their beneficial effect on the aneurism. Beyond those circumstances of the case which appeared to his colleague, Dr. Murchison, to have occasioned the fatal issue, he ventured to call attention to one other which he thought to be the most important and the starting-point of them all—namely, the very large mass of fibrin which had collected through mechanical means in the aneurism. To it he attributed both the local and the constitutional excitement which had commenced on the morning after the operation, and had, he believed, caused the pericarditis and the death. The main question before the Society of course was the prospect of advantage which this case held out from a repetition of the operation, or of a modification of it. He had come to the conclusion that the fatal issue was not an essential inevitable result of the operation, and that cases might occur in which it would prolong life. The first effect of the insertion of the wire had been very surprising, the pulsation of the aneurism and the peculiar sharp second stroke having become imperceptible at the end of an hour. This fact implied that the same effect might be produced in a little longer time with a smaller quantity of wire than had been used in the present case, and that that portion of it which had been inserted with difficulty might have been dispensed with. He did not wish, however, to be supposed to be laying down a positive rule for the treatment of other and perhaps dissimilar cases. The grounds on which the operation was based were all of them facts previously known, and familiar to all the Fellows present, whom he considered equally capable with himself of forming an opinion, and of contributing to avert the causes of the failure of the proceeding in the present case.

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Some discussion subsequently took place respecting the reading of very long papers *in extenso*, and some irregularities in the manner in which papers were forwarded to the Society. The matter will probably come before the Council.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

THURSDAY, FEBRUARY 11, 1864.

Mr. PYLE in the Chair.

PREVALENT DISEASE: DEGENERATION IN INSANITY.

Dr. PHILIPSON read a first monthly report of the prevalent diseases of the district. This seems to be the germ of what may be a most practically useful proceeding—the prevalent disease of the district described, the results enumerated, and plans of treatment discussed. Scarlatina and diphtheria seem to have been the leading diseases.

Dr. KENNETH MCLEOD then read a paper on

FATTY DEGENERATION IN INSANITY,

from which we extract the very telling and able peroration:—

"I have sufficiently demonstrated the fact that in insanity one great truth, perhaps the great and practical truth, is the tendency to imperfect nutrition and degeneration as an invariable concomitant and necessary consequence. The importance of using every endeavour to promote by hygienic, dietetic, and medicinal means, the nutrition of the body, becomes very apparent and imperative. I assert this most emphatically, because means prejudicial thereto—blistering, depletion, purging, starving, mercurials, antimonials, etc.—are still too often employed, and with the worst possible effect. It is a fact of daily experience besides, that the free and judicious exhibition of stimulants and nutrients are the principal agents in bringing about the recovery of the insane. We sometimes admit thin, pallid wretches, with large blister marks on nape of neck, leech-bites on temple, red line on gums, whom we have to ply with wine, beef-tea, and cod-liver oil and iron, and we invariably find that as the flush of health again mantles the cheek, cerebral action becomes more healthy, and sanity returns. Of course other medicinal and moral means are employed; drugs, such as hydrocyanic acid, to restrain the excessive and deranged brain action, and moral means, to induce conduct and thought more in adaptation with circumstances; but the most efficient and powerful remedial agent is undoubtedly—*nutrition*."

This was followed by an important paper, by Dr. Murray, on the "Administration of Chloroform in Chorea and Epilepsy," and a discussion on "Placenta Prævia."

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Wednesday, March 23, 1864:—

Alfred Philipps, Lamb's Conduit-place, W.C.

On Thursday, March 24:—

Francis Fox, Ringwood, Hants; Evan Evans, Llandyssie, South Wales; John Hall, East Retford, Notts; Revett Coleridge Powles, Ipswich; James Ricketts, Liverpool; Albert Lloyd, Bristol; Edward Thomas Shaw, Packington-street, Islington.

The following gentleman, also on the same day, passed his First Examination:—

Frederick Edward Worthington, Manchester.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ADAIR, PONSONBY, M.R.C.S. Eng., has been appointed by the Bombay Government to the Medical Charge of the Expedition Proceeding to the Persian Gulf to Lay the Submarine Cable of the Government Telegraph to India.

ARMSTRONG, JAMES HUNTER, M.R.C.S. Eng., has been appointed House-Surgeon to the Ashton-under-Lyne Infirmary.

DOUGLAS, ANDREW H., M.D. Edin., has been appointed Acting Physician to Chalmers' Hospital, Edinburgh.

FRODSHAM, JOHN M., M.D. Edin., has been elected Hon. Medical Officer to the Royal Pimlico Dispensary.

JACKSON, T. VINCENT, M.R.C.S., has been elected Surgeon to the South Staffordshire General Hospital, Wolverhampton.

M'NAIR, F., M.R.C.S. Eng., has been appointed House-Surgeon to the Surrey Dispensary, Great Dover-street.

MILLER, JAMES, F.R.C.S. Edin., has been appointed Acting Surgeon to Chalmers' Hospital, Edinburgh.

PATERSON, JAMES, M.D. Glasg., has been elected Registrar to the Faculty of Physicians and Surgeons, Glasgow.

QUINLAN, FRANCIS B., M.D., T.C. Dub., has been appointed by His Excellency the Lord Lieutenant to the Office of Medical Superintendent to the Intermediate Prison, Smithfield, Dublin.

WATSON, THOMAS, M.D., F.R.S., has been re-elected President of the Royal College of Physicians, London.

WILSON, Dr. J. CLARK, has been appointed House-Surgeon to Chalmers' Hospital, Edinburgh.

WORGER, T. H., M.R.C.S. Eng., has been appointed Assistant House-Surgeon to the Kent and Canterbury Hospital.

DEATHS.

AMESBURY, JOSEPH, M.R.C.S. Eng., at 93, Lansdowne-place, Brighton, on March 27, aged 68.

BRADY, THOMAS, F.K.Q.C.P.I., at Upper Temple-street, Dublin, on March 16, aged 62.

HAMILTON, JAMES, L.R.C.S. Edin., at Dungannon, County Tyrone, on March 10.

INCE, EUGENE S., M.D. St. And., at 3, Wilton-street, Grosvenor-place, S.W., on March 25, aged 28.

MCGILCHRIST, JOHN, M.D., at 63, Castle-street, Edinburgh, on February 27.

QUINTON, WILLIAM, M.R.C.S. Eng., at Cannock, Staffordshire, on March 14, aged 53.

RANKINE, Dr. J., at Beulah-lodge, Helensburgh, late of Blackwood, South Australia, on March 15, aged 61.

ROYAL COLLEGE OF SURGEONS.—The lectures at this institution are brought to a close for the present, owing to the theatre being required for the examinations of the great number of students now offering themselves for the ordeal which will take place on the 9th, 16th, and 30th inst., and the 7th proximo; and early in the ensuing month (June) Professor Fergusson will deliver a course of six lectures "On the Progress of Surgery during the Present Century." Professor Huxley brought his course of twenty-four lectures, "On the Structure and Classification of the Mammalia," to a close on Saturday last.

DR. MOORE AND THE BETHNAL-GREEN GUARDIANS.—We regret to state that the Poor-Law Commissioners have arrived at an unfavourable conclusion in Dr. Moore's case, and have consequently dismissed him.

POISONING BY SULPHURIC ACID.—On March 28, at the Assizes at Bury St. Edmunds, a young woman named Brown was tried for the murder of her illegitimate child. The post-mortem examination and chemical analysis of the stains on the child's clothes incontrovertibly proved poisoning by oil of vitriol. The post-mortem examination was conducted by Mr. H. P. Leach. The mouth was filled with frothy mucus, the œsophagus was white. There were two large jagged perforations in the stomach. The cavity of the abdomen contained a quantity of fluid, in which were floating pieces of charred tissue, food, and mucus. The peritoneum was inflamed. The analysis was made by Mr. Image, of Bury, and appears to have been quite satisfactory. The jury did not consider the evidence sufficient to prove the administration of the poison by the mother, and therefore acquitted her.

THE NEW PHARMACOPŒIA.—An address was delivered on Tuesday, March 15, in the Manchester Athenæum Library, by Mr. J. T. Slugg, "On the British Pharmacopœia; its Contents, Effects, and Defects." To judge from the report we have seen, the latter occupied the most prominent place in the lecture. Mr. Slugg said: No doubt a new Pharmacopœia might be needed every ten or fifteen years, but he contended that the greatest care should be taken not to disturb existing foundations of formulæ and names of drugs. The general opinion was that in this case such caution had not been observed. It was a question with some whether they had not "jumped out of the frying-pan into the fire," and whether the remedy was not worse than the disease. Certainly his own opinion, and that of many others with whom he had come in contact, was that the inconveniences arising from the three Pharmacopœiæ under the old system were not at all to be compared with the inconveniences of the production before him. He thought, too, if there had been fewer men on the council who drew up the new Pharmacopœia, and more practical dispensers, the work would have been done better. That the work was a failure was evident; one proof was that everybody was afraid to begin with it, and they could not find any Medical man now using it. It was also a great defect

that no time had been specified when the new Pharmacopœia was to come into use. This necessitated chemists keeping two kinds of preparations, and really might tend to serious complications. Another defect, to which he had previously alluded, was the petty alterations which had been made in the names and strength of Medicines.

THE MEDICAL PROFESSION.—The greater part of the capital of the Surgeon is sunk in his sustenance and education. A considerable sum is necessarily sunk in acquiring practice. The amounts vary, but capitals ranging from £1000 to £5000 are expended in the establishment of a Surgeon or Physician in full practice. The income, after some deduction for the cost of articles, is net. It gradually rises from nothing to £1000 or £2000 a year. A few Physicians, Consulting Surgeons, Accoucheurs, Dentists, and Oculists in London earn incomes of £5000 a year, and one or two eminent Surgeons have realised, by intense labour, £10,000 a year or more for several successive years. Sir Astley Cooper is said to have gained £21,000 in a single year. The income and outgo are lowest in thinly-peopled districts. In exceedingly remote districts, Surgeons cannot live: the incomes are highest in towns. The business decreases in healthy seasons, and increases in epidemics. Chaucer's Doctor had "kept that he won in the pestilence." It has been argued that Medical Men profit by plagues, and are interested in their prevalence, although it is admitted that all sanitary improvements began with them. Against this is to be set the danger of dying by pestilence incurred by the Medical attendant—a danger from which they now never shrink. Epidemics, too, like cholera, destroy the ailing patients at one fell swoop. The Surgeon loses in two ways in an unhealthy place; the people become poor, and unable to pay, while his life is shortened, and his income, being of the nature of a life annuity, is reduced in value. It would, however, be advantageous to families of all classes to pay their Medical adviser fixed sums annually, so that he might have the opportunity of preventing as well as curing diseases.—*Appendix to Report of Census for* 1861.

A NEW "CURE" FOR PERTUSSIS. — Several children suffering from whooping-cough at Calais have been taken to the gas-works of that town, and caused to inhale the fumes which are disengaged during the purification of the gas by lime. The success is said to have been most remarkable, great relief at once following exposure to these fumes for a few minutes, and two or three visits sufficing to produce a complete cure.

MEDICAL MISSION HOSPITAL AT ANTANANARIVO, MADAGASCAR.—Dr. Andrew Davidson has issued an appeal in behalf of the above project. We commend it heartily to the charity of our readers. No better platform for the introduction of pure religion can possibly exist than an institution in which physical suffering is alleviated by persons who give their labour and, if need be, their lives for the benefit of others. The following extracts from Dr. Davidson's proposal will show what is wanted:—"The population of the vast island of Madagascar is usually reckoned at 4,000,000. The natives, although they are considerably removed from a state of barbarism, and have attained to a certain degree of advancement in many of the useful arts, are entirely ignorant of Medical science. The London Missionary Society has established a Dispensary, and maintains a Physician at the capital. The numbers who daily apply for medicine and advice evince the value put upon that institution by the Malagasy. More substantial proofs are not wanting. The nobles have contributed cheerfully towards the erection of the buildings; and while none are refused medicine because they are unable to pay for it, yet many, even of the poorest, willingly give a small sum, as they are able, to help to meet the current expenses of the establishment. During the past year—a year of revolutions—above 3000 patients have been prescribed for, out of tens of thousands who have applied. One Medical man to so great a population can do little, even were he furnished with all the means and appliances for the healing of the sick, and it is manifestly impossible to treat many of the cases of every-day occurrence unless he possesses an Hospital for the reception of those who have to undergo severe or dangerous operations, or who suffer from diseases requiring the constant and careful attention of the Physician or the nurse. Diseases of the eye requiring Surgical operations are common, as is the case in most Eastern countries. In these the success or failure of an operation often depends to a great extent upon the after treatment. For seven months of the year fever is prevalent and deadly; many die of the fever, many more from the ignorance or inattention of their attendants. Without mentioning more, there is one class of sufferers in whom we must all feel a lively interest, and for whose welfare I most earnestly plead to be furnished with an Hospital—these are the children. In the central province of Imerina alone thousands of infants and children perish every year from diseases that cannot be successfully treated unless the patient is under the eye of the Physician. One grand object which the Medical mission here has been intended to accomplish, is to train Christian natives in Medicine, so that they may be able to act as pioneers to the regular missionary, and such an Hospital, if properly worked, and if proper assistance be obtained, will enable us to give a more complete training to young men from distant parts of the country, which, though nominally under Hovah rule, has hitherto been quite inaccessible to Europeans. If these regions and tribes are to be Christianised, I know no more likely means of acccomplishing it than this. For this purpose it is proposed to raise £1000. The Malagasy Government have granted a suitable site, and may do more. The native Christians will assist in the erection of the building, but without the aid of England it can neither be completed nor efficiently maintained." Donations or subscriptions to the Hospital, Antananarivo, will be received by the directors or officers of the London Missionary Society, Mission-House, Blomfield-street, Finsbury.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

W. B.—He is certainly eligible to hold a Poor-law appointment. We do not think he could recover in a Surgical case under the new Medical Act.

Medical Inquirer.—Lay your plants between coarse blotting-paper made for the purpose. You can get the paper at Lewis's, the bookseller's, in Gower-street. Lay the sheets of blotting-paper between two millboards, and press in a common clothes' press, or put them under your mattrass. In the latter way, one of the first botanists of the day made his first herbarium.

Gratuitous Service.—The following sensible remarks conclude a letter by Dr. Walter Garstang, M.D., of Blackburn, in reply to an application that he should certify gratuitously to the fact of sickness amongst the recipients of public relief:—

"No person, or body of persons, has assuredly the least pretext to expect, *still less to impose*, the execution of any kind of Professional labour, as such, without frankly attaching to it pecuniary remuneration. Charity wears many false airs; one of the most repulsive among them is found in the matter of gratuitous Medical service done in behalf of the public."

A Londonderry Subscriber thinks that acute maladies in Ireland arise from the upper and lower extremities of the body not being sufficiently protected from wet. Could not a change in the fashion of dress to some extent remedy this evil?

Counter Practice of Chemists.—A correspondent of the *Chemist and Druggist*, February 15, 1864, speaks out on this point, and shows what the country general Practitioner may expect, when the chemist and druggist is decorated with new privileges and authorised to assume a higher status. He replies to some remarks of Mr. Thompson, an eminent chemist, at Leeds:—

"I am aware that a dispensing chemist may do any amount of counter prescribing he thinks proper, the law holding every man ignorant of the science of medicine responsible for the evil consequences of his ignorance; and I agree that no man ought to prescribe ignorantly, but I am not prepared to admit that in ninety-nine cases out of one hundred it would be better to send the patient to a doctor. I think Mr. Thompson's illustration somewhat unhappy, and his analogy, in a great measure if not altogether, a failure. Had his audience consisted of tradesmen whose daily avocations and pursuits were utterly *distinct from the practice of physic*, then it might have been legitimate for him to institute an analogy betwixt what they ought to do for the derangements of a watch and the derangements of the human system. For instance, supposing them to be all watchmakers, it would have been perfectly consistent for Mr. Thompson to recommend them, if consulted in a case of measles, to do what they would advise a doctor or a chemist to do if consulted about the derangements of a watch; but I presume his audience consisted of gentlemen *who had, to some extent, studied the practice of physic* and given some attention to *the symptoms of all ordinary diseases*; and I contend that *in ninety-nine cases out of one hundred* presented to him, the intelligent chemist *is as well able to draw* a correct diagnosis and prescribe successfully as the general Practitioner, and that he does so is sufficiently attested by the fact that a respectable chemist and druggist is seldom, if ever, called upon to answer a charge of ignorant prescribing."

This is plain speaking. For our own parts, we deride *protection*. John Bull will not be driven, but may fairly choose for himself whether he will be treated by a man who sells medicines, or by one whose business it is to study diagnosis, and knows what he gives medicine for. But we should be fools indeed if we concurred in any measure for giving the chemists any additional semblance of professional character.

THE NATIONAL MEDICAL REGISTRATION ASSOCIATION.

Dr. Henry G. Wright requests us to announce the following contributions towards the liquidation of the debts still owing by the National Medical Registration Association:—J. T. Clover, Esq., £1 1s.; Dr. Tuke,

£1 1s.; — Obré, Esq., 10s. 6d.; R. Dunn, Esq., £1 1s.; Dr. Wright, £2 2s.; Dr. Savage, £1 1s.; J. F. Clarke, Esq., £2 2s.; — Slyman, Esq., £1 1s.; Dr. Webster, Nottingham, £1 1s.; Dr. Henderson, 10s.; Dr. Birkett, 10s.; Dr. Headland, £1 1s.; Dr. Ridsdale, 10s.; T. S. Wells, Esq., £1 1s.; G. Shepherd, Esq., 10s. 6d.; Dr. W. O. Markham, £1 1s.

There still remains a sum of £143 13s. 7d. to be paid off, and the creditors (many of whom have been waiting two years) are pressing their claims. It is surely but right and fitting that the members of the Profession should come forward to assist in defraying the law cost of actions undertaken in their behalf, and the expenses incurred in defending and promoting their interest. At a time when the grievances of the Profession are so many, and so greatly need redress, it will certainly deter persons of influence from actively assisting to promote the welfare of the Profession if they learn that there remains unpaid such a debt as that to which we have alluded.

Dr. Wright, 23, Somerset-street, Portman-square, W., is the Treasurer of the Indemnity Fund, and will be happy to receive contributions.

Early Menstruation.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Should you consider the following worthy of a place in your journal, I shall be glad if you will insert it:—

On the 24th ult. I attended Mrs. W., aged 26, in confinement of her first child. She informed me that she began to menstruate when only two years and a-half old, and continued to be perfectly regular until she became pregnant. Her health has always been very good; she is of very small stature, but her parents, brothers, and sisters are very tall.

Are there any cases of earlier menstruation on record?

I am, &c. WILLIAM TAYLOR COLBY.

Wentworth Ville, Malton, Yorkshire, March 28.

The Army Medical Department.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Having read the letters of "An Army Surgeon," in your two last papers, and that of "Truth" in your issue of the 26th, as well as the letter of "Consilio Manuque" in the *Lancet* of the 26th, I am of opinion that if the suggestions therein contained were acted up to in letter and spirit there would be no more grumbling, and the Government would get some of the best men in the Profession to enter the lists of the Army Medical Department, instead of being compelled, as at present, to raise the age of admission from 26 to 30, and thereby to ensure a supply of inferior men, who have tried their luck in civil life, and failed, either from their misfortune or fault, or both combined. The letters above referred to leave me little to add.

I am, &c. COMMON SENSE.

Freeman's Chlorodyne.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I beg to deny most emphatically the statement made by Mr. Freeman in a previous number (November 14, 1863), in reference to the use of Freeman's chlorodyne in this Hospital by Dr. O'Connor or any other member of the Medical staff; and further, I assert that it was Mr. Freeman himself who stated (in the presence of several persons) that Dr. O'Connor was in the habit of frequently prescribing his chlorodyne.

This statement I distinctly refuted, at the same time assuring him that if he continued to advertise what he knew to be untrue, I should bring the matter before the notice of the authorities of the Hospital.

I am, &c.

JOHN D. HILL, M.D., Resident Medical Officer.

Royal Free Hospital, March 30.

Pure and Warm Air in Bed-rooms.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am happy to bear testimony to the truth of the remarks made by my friend, Mr. W. Burder, in your last Journal, touching the value of moisture in the atmosphere of the apartments of the phthisical invalid, and, indeed, also, in most cases of bronchial irritation. Warm and moist air is a most valuable sedative to the cough, in all such cases so troublesome and tedious; nor, indeed, do I believe there is any drug in the Pharmacopœia equal in value to a well-regulated and duly humid atmosphere. Mr. Burder describes the mode of obtaining this moisture, which he will be glad to know is in very general use by the Profession in this locality. I take this opportunity also of expressing my admiration at the ingenious contrivance described by Mr. Burder in a former letter, by which he obtains a constant supply of pure and warm air in his bedroom day and night, and a knowledge of which mode I could wish was very generally diffused, since it would add most essentially to the comfort of all invalids (alas! a great host), who spend their days, and weeks, and months within the area of a moderately-sized room, most difficult to ventilate, but yet an operation most necessary for the comfort and improvement of the occupant, be he suffering from any form of disease whatever.

I am, &c. EDWARD HUMPAGE.

8, Cotham-road, Bristol, March 23.

The Alteration in Weights.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—We are beginning to feel that in depriving us of the scruple and drachm weights, the Medical Council has put us to an inconvenience similar to, and, Medically speaking, as great as, that which would result if the Mint was to withdraw the silver coinage to-morrow, and tell us to conduct our small monetary transactions with half-pence. The inconvenience, indeed, threatens to be so great, and the liability to mistakes following the use of a complex series of figures from 1 up to 218·7 (the ℥ss. avoir.), is so obvious, that I need not insist upon these points. One objection to innovation I will, however, anticipate. It may be said that it is as easy and as plain to write lx. or 120, as it is to write ʒj. or ℥ij. It may be so; but which is least liable to be mistaken? The dots I take to be an effectual safeguard in the latter case.

If the Roman numerals were adopted, the objection on the score of liability to mistake would be lessened, because they could not be written fluently; but if the Arabic numerals in common use be employed, the very fluency with which they may be written—resulting as it very frequently does in illegibility—is a sufficient objection to their use. Granting, then, that some weight less than the ℥ss. would be advantageous in pharmacy, the question remains, what weight can be substituted in place of the now pharmaceutically obsolete ℈j. and ʒj.?

We can do very well without the former, but we want something equivalent to the latter, which can no longer be used, since it is not a fractional part either of the avoirdupois ounce or pound. Neither can we adopt the avoirdupois drachm for two reasons, namely:—1st. It does not represent a whole number of grains; 2nd. Its adoption under the symbol 5 would lead to a confusion of literature referring to pharmacy past and to come.

It appears, therefore, that sooner or later we must have a new weight, designated by a new symbol, and I beg leave to submit to the Profession, through the medium of your valuable journal, whether a weight possessing a distinctive and appropriate symbol, and representing the one-seventieth part of the avoirdupois pound—namely, 100 grains—would not meet the requirements of the case.

The symbol I would propose is a C, formed of a line of uniform thickness. C is appropriate, inasmuch as its signification of 100 is immemorial; but, as it is at present used to denote the gallon measure, I would represent it reversed—thus, Ↄ; Ↄj. = 100 grs.

The advantages which would attend the use of this symbol, and the signification I would give it, are the following:—

1. A symbol representing 100 grains would have the advantage of simplicity in relation to a decimal system.

2. Ↄj. bears a simple proportion to the pound avoirdupois, Ↄlxx. = 1lb.

3. Ↄss. = 50 grs., is so nearly equivalent to the obsolete ʒj. = 60 grs., that, generally, we may at once substitute the former for the latter.

Ↄ is sufficiently distinct from ↄ, although, allowing that there be some distinction in point, it would be a matter of no importance if they more closely resembled each other, since the scruple and its symbol is now obsolete in Medicine.

A friend to whose opinion I attach very much weight says:—"I should prefer the C to the Ↄ, and do not think there is any fear of this being confounded with Cong.; indeed, we may rarely prescribe gallons except for baths, when the C. used for Cong. would lead to no mistake." I entirely agree with him that there could be no mistake, but it has since occurred to me that Gr., written hurriedly, with a wide loop above and a short down-stroke, might too closely resemble the unreversed C.

King's College, March 14. I am, &c. JOHN HARLEY.

Deaths from Anæsthetics.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As the "numerical method" must assist much in arriving at the exact nature of the cause of death by anæsthetics, I wish you would let me insert an abstract of three other deaths from anæsthetics, the particulars of which have been sent to me this month,—two from America, one from Australia. It may appear that I am a sort of "stormy petrel," always in trouble or in at the death,—always horrifying people with such deaths; but my excuse must be, that the collection of such cases, in a scientific point of view, is all-important,—as much so, indeed, as the collection of cases of alleged bronze skin with supra-renal capsule disease of Addison, hippocampus facts in the gorilla controversy, jaw-bones alleged to be found in the drift, or any similar thing where the numerical system will help us and uncertainty prevails.

One case is that of an apparently active man, a prisoner at Pentridge, in Australia, who died in an instant, while under chloroform, a few weeks since, during the passing of a catheter. It appeared at the inquest "that not more than half an ounce had been used, and that death took place rather from syncope (fainting) than congestion." From the analogy of a few such cases, and a curious tendency to syncope, referred to by me, and mentioned, irrespective of chloroform, by Heurteloup and Syme, which has been observed in Hospitals in urethra operations, I think this syncope as a coincidence is most likely. In obedience, however, to former errors as to the lancet, the infallibility of the Marshall Hall method, etc., we are told twenty ounces of blood were taken by a lancet from the arm of this patient as a chloroform restorative,—"something of more than questionable utility," as remarked by the *Australian Medical Journal*. We can well conceive, indeed, what a mistake it would be to take twenty ounces of blood from the arm of a hysteric girl in a faint, placed bolt upright in a chair; and these poor prisoners are in much the same state of nervous debility or anæmia.

The second case is a little out of the common class of accidents; but the fatal result was admitted to be from inhalation of the vapour of chloroform, though apparently in its external use. Mr. J. B. S——, of Syracuse, in America, who died also suddenly in February, 1864, from the effect of the external application of chloroform. "He had been bathing his limb with the fluid," says the *American Medical Times*; "his wife entered his room and found him lying upon the floor dead. A handkerchief saturated with chloroform and an open bottle were found by his side. A post-mortem examination revealed the fact that his lungs were very much congested from the effects of the inhalation of the chloroform." He was rubbing a chloroform liniment.

The third case is that of a gentleman, this year also, of New York, who, for a very trivial operation, had the nitrous oxide gas. "He continued to grow worse, and died in about two hours. (This is the second case of death from this gas of late.) The deaths here, as well as those from ether and the "ether mixtures," now so fashionable in Hospitals and midwifery, are always slow, by a sort of intense drunkenness. The blood globules, we know, too, are destroyed, which does not occur under chloroform: indeed, under some of the gaseous anæsthetics, the blood is so thoroughly destroyed and broken up that it is a miracle such patients ever recover. The deaths also from ether and "ether mixtures" are not dissimilar from those produced by gases; while the use of the "mixtures" is excessively tedious for the Surgeon about to operate.

Sackville-street, March 25. I am, &c. CHARLES KIDD, M.D.

COMMUNICATIONS have been received from—

Mr. J. W. IRVINE; J. A. F.; Mr. C. W. STEVENS; Dr. CHARLES DYCE; Mr. T. WHARTON JONES; CANDLER v. PEAT DEFENCE FUND; Dr. F. B. QUINLAN; MEDICAL INQUIRER; Dr. CHARLES KIDD; MEDICAL SOCIETY OF LONDON; APOTHECARIES' HALL; Dr. WILLIAM OGLE; Dr. JAMES EDMUNDS; ROYAL INSTITUTION; Mr. T. H. WORGER; Mr. ROBERT M. CRAVEN; Mr. R. GRIFFIN; Dr. R. H. HAYES; Mr. W. BEAUMONT; VIVAT REGINA; Mr. JAMES BEAVAN; Dr. DEVENISH; Mr. E. HUMPAGE; Dr. MILLETT; Mr. C. A. GREAVES; Dr. F. H. GERVIS; JUNIOR MEDICAL SOCIETY OF LONDON; Mr. ROBERT PEARSON; Mr. CHARLES LATHAM; Mr. WILLIAM CURTIS; Mr. W. H. MANIFOLD; Mr. THOMAS SLATER; COMMON SENSE; Mr. W. TAYLOR COLBY; A SUBSCRIBER; Mr. CHARLES MAYO; Dr. WILLIAM MURRAY; Mr. A. W. MOORE; Mr. W. F. AINSWORTH; EPIDEMIOLOGICAL SOCIETY; Mr. WILLIAM F. CLARKE.

BOOKS RECEIVED.

The Battle of the Standards: the Ancient of Four Thousand Years against the Modern of the last Fifty Years. By John Taylor. London: Longman and Co. 1864.

*** This is a singular, not to say eccentric work, in which Ægyptology, poetry, mensuration, politics, and theology have come into unusual combination. The "Ancient" of the title is neither more nor less than the Great Pyramid. In his honour the book opens with a poem by Patrick Scott, Esq. He remarks, that

> "'Tis not for poet to inquire
> *Why* thou wast built? and *when?*"

and then, rather inconsistently, launches into the inquiry. He is followed by a sonnet from Petrocchi, a translation of which "was originally sent by Mr. Strong to the *London Magazine*, which *the editor* (*qy.* author) conducted from 1821 to 1824, with the aid of the late John Hamilton Reynolds and the late Thomas Hood, his valuable coadjutors."

Then we have an account of the Pyramids, tending to show that they were intended as observatories for the then pole-star *á* draconis. This calculation is extracted from Sir John Herschel's celebrated Astronomy, and enables the writer to assert (why we cannot imagine) "That while Noah was still living the Great Pyramid was constructed. It had been revealed to the builders of that wonderful structure that the earth was a sphere, the measurement of which they then made with great exactness; that it revolved daily on its axis, which was inclined 30° above the level of the horizon, that the axis was on a line with the polar star, and that the earth's orbit was completed round the sun in the course of a year." Having established this startling conclusion to his own satisfaction, the author indignantly asks "Shall we admit as evidence of this wonderful revelation a monumental record of the most imperishable nature? or shall we ignore its existence, and be content with what is taught erroneously as the truth in our schools and universities?"

A long comparison of our measures of length with the equatorial and other diameters of the earth follows, and the product is applied to the measurements of the Pyramid. Noah then comes on the stage with his sacred cubit, in the character of an antediluvian Brunel, and forms the starting-point of some marvellous semi-theological speculations, showing that the "unwritten revelation" aforesaid is the foundation of our modern measure of length.

There follows a brief memoir of the Great Pyramid, offered to be read before the Royal Society in 1859, but which that learned body seems to have succeeded in shelving.

Then we have Sir John Herschel's two well-known letters to the *Athenæum*, on a British Modular Standard, and the leading article, letters, and other communications published in the *Times* when the decimal system was lately discussed. All these allude with respect to Mr. Taylor's views on the mathematical coincidences in ancient and modern measures, and also as to the proportions of the Pyramid. But they make no mention of his theological doctrines, which probably come now for the first time before the world. The book produces a very painful effect from its mixed power and incoherence.

The Medical Report on the Great Western, Bristol and Exeter, and South Wales Railways' Provident Society, for the Year 1863.

*** The Medical staff of the Great Western Railway is a very important body; it consists of ninety-four country Surgeons and Doctors of Medicine; two Consulting Surgeons, Mr. Lane, of London, and Mr. Hester, of Oxford; two Consulting Local Physicians, Dr. Budd, of Bristol, and Dr. Drake, of Exeter: three *Honorary* Officers, viz., Dr. Markham, Honorary Physician; Mr. Wall, Honorary Examiner; and Mr. Keddell, of Bristol, Honorary Surgeon; and Dr. Cooper, Consulting Physician and Medical Superintendent. These gentlemen have drawn up a very useful Report, calculated to show the state of health of the labouring population. For example, they examined 857 candidates for appointments, passed 512, and rejected 345. Among the rejected, "general labourers" and "porters" figure largely, being, for the most part, unskilled labourers, of indifferent health, forming part of the loose population of towns. Out of the 345 causes of rejection, small and malformed chest was reckoned in 172 cases; diseased lungs, scrofula, and consumption, 65; curved spine in 22; and near sight in 7. The Railway Provident Society numbers 3130 members, amongst whom were 907 cases of illness, lasting 2076 weeks, and 262 cases of accident, lasting 940 weeks. The following is the result of the actual illness during the past year:—

Number ill out of 100 liable to sickness	29 persons.
Number ill, including accidents, out of 100 liable	37½ ,,
Average (for each member liable) for sickness alone	4⅖ days.
,, ,, ,, including accidents	6⅔ ,,
,, duration of each case of sickness	16 ,,
,, ,, ,, accident	25½ ,,
,, ,, ,, from all causes	18 ,,
Deaths from sickness alone	22, or 7 per thousand.
,, all causes, including 8 for accidents	30, or 9⅔ ,,

The value of such Reports is evident from the fact that the quantity of sickness amongst the 3130 persons was 785 weeks *less* than might have been expected.

Quarterly Return of the Births, Deaths, and Marriages Registered in the Divisions, Counties, and Districts of Scotland. Quarter ending December 31, 1863.

Supplement to the Monthly Returns of the Births, Deaths, and Marriages Registered in the Eight Principal Towns of Scotland; with the Causes of Death at Four Periods of life. Year, 1863.

*** Respecting births we have here some curious facts. The rate was highest in Greenock, lowest in Perth. In all the towns it bore a close relation to the death-rate, being generally highest where the mortality was highest, and lowest where the mortality was lowest. In every ten births one was illegitimate. In Aberdeen no less than 16 per cent. of the births were of this character. Deaths were due to epidemic and contagious disease in 29·8 per cent.; in Glasgow, scarlatina, typhus, and whooping-cough were prevalent; in Edinburgh, measles and typhus; in Dundee, scarlatina, typhus, and small-pox; in Paisley, typhus, measles, and croup; in Greenock, small-pox, whooping-cough, and typhus; in Leith, typhus and measles; in Perth, typhus and croup. There is added an interesting comparison of weather with mortality from certain diseases.

Confessions of the Faculty, with Comments. By A Medical Practitioner. London: G. Clayton. 1864.

Guido Teorico Pratica del Medico Militare in Campagna. Del Cav. F. Cortese. Parte I. Parte II. Torino. 1862-3.

Cases in Operative Surgery. Part II. By Augustine Prichard, F.R.C.S., Surgeon to the Bristol Royal Infirmary, &c.

The New Sydenham Society's Works. Vol. XXI. A Handbook of the Practice of Forensic Medicine. By J. L. Casper, M.D. 1864.

A Practical Treatise on Diseases of the Skin in Children. From the French of Caillault. Second Edition. By Robert H. Blake, M.R.C.S.E. London: John Churchill and Sons. 1863.

The Prescriber's Analysis of the British Pharmacopœia. By J. Birkbeck Nevins, M.D. Lond. London: John Churchill and Sons. 1864.

The Medical Mirror. March, 1864. London: H. K. Lewis.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 26, 1864.

BIRTHS.

Births of Boys, 974; Girls, 923; Total, 1897.
Average of 10 corresponding weeks, 1854-63, 1875·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	729	668	1397
Average of the ten years 1854-63	674·4	642·9	1317·3
Average corrected to increased population	..	..	1449
Deaths of people above 90	..	..	7

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	..	2	8	..	9	5	1
North ..	618,210	4	12	9	1	18	10	2
Central ..	378,058	2	10	3	1	10	7	1
East ..	571,158	..	5	9	..	18	15	1
South ..	773,175	5	15	8	3	20	10	3
Total ..	2,803,989	11	44	37	5	65	47	8

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·569 in.
Mean temperature	40·4
Highest point of thermometer	57·6
Lowest point of thermometer	26·9
Mean dew-point temperature	35·2
General direction of wind	N.E.
Whole amount of rain in the week	0·04 in.

APPOINTMENTS FOR THE WEEK.

April 2. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

4. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

Epidemiological Society, 8 p.m. Annual Meeting. Address by Dr. Babington, F.R.S., on his retirement from the Presidency.

Medical Society of London, 8½ p.m. Clinical Discussion.

Odontological Society, 8 p.m. Meeting.

Royal Institution, 2 p.m. General Monthly Meeting.

5. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Anthropological Society of London, 8 p.m. Meeting.

Pathological Society, 8 p.m. Meeting.

Royal Institution, 3 p.m. Professor Helmholtz, "On the Natural Law of Conservation of Energy."

St. Mary's Hospital Medical School, 8 p.m. Dr. Grailly Hewitt, "Clinical Conference in Midwifery."

6. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m., Middlesex, 1 p.m.; London, 2 p.m.

Hunterian Society, 8 p.m. Dr. Risdon Bennett, "On a Case of Hydatid Disease of the Liver, with Remarks."

Obstetrical Society of London, 8 p.m. Papers by Dr. Meadows, Dr. Day, Dr. Barnes, etc.

7. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m., Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Harveian Society of London, 8 p.m. Mr. Weeden Cooke, "On the Tumours Affecting the Female Breast." A Discussion "On Diphtheria."

Royal Institution, 3 p.m. Professor Helmholtz, "On the Natural Law of Conservation of Energy."

8. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

Royal Institution, 8 p.m. Dr. J. Percy, F.R.S., "On Iron."

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The following Waters as usual:—Potash, containing 18 grains of the Bicarbonate in each bottle; Citrate of Potash, 30 grains; Soda, 15 grains; Ammonia, 10 grains; Seltzer and Vichy from their respective analyses; and a very delicious, as well as useful, MINERAL ACID WATER.
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(a) Bulletin de l'Académie de Med. 1850, page 1015: Gazette Médicale, Aug. 17, 1850: Union Médicale, Aug. 15 and 22, 1850; Gazette des Hôpitaux, March 15, 1853, and June 10, 1854; Gazette Hebdomadaire de Médicine et de Chirurgie, Aug. 31, 1855; Revue de Thérapeutique Médico-Chirurgicale, Feb. 15, 1855; Abeille Médicale, Revue Clinique; Repertoire de Chimie et de Pharmacie; Annuaire de Thérapeutique pour 1851, page 199; Orfila, Elements of Chemistry; Mialhe, Chemistry Applied to Therapeutics, 1856, p. 319; Quevenne, Essay on the Physiological and Therapeutical Action of Preparations of Steel, page 97, 1854; Bricheteau, Treatise on Chronic Diseases Seated in the Respiratory Organs; Soubeiran, Treatise on Pharmacy; Dorvault, Officine, &c., &c.

ORIGINAL LECTURES.

A LECTURE
ON THE CONSERVATION OF ENERGY.

By Professor HELMHOLTZ.

DELIVERED AT
The Royal Institution
ON APRIL 5, 1864.

THE natural sciences occupy at present so prominent a place among the different branches of human knowledge, they have exerted so great and all-pervading an influence on the whole state of modern society and civilised life, that every one who considers their rapid and rich development during the course of the two or three last centuries will feel inclined to ask what may be the causes which have favoured these sciences in so peculiar and extraordinary a way; while other branches of human study, which relate either to the mental and moral qualities of man, like pyschology, moral philosophy, the science of language, of literature and art, or to human instincts, actions, and energy, like history, political science, law, etc., have made progress not so incomparably surpassing that of ancient times, or even sometimes did not reach that wonderful degree of artistic perfection, which ancient Greece had succeeded in imparting to the exposition of scientific questions. Mankind, of course, have always been obliged to observe nature, because they wanted to procure for themselves food, clothing, shelter, and medicine; and we find, indeed, in the books of Aristotle a rich collection of facts, bearing evidence of a very attentive and unprejudiced observation of nature. But one cannot say that these facts were connected into anything like science; so very strange are the metaphysical speculations on natural objects brought forth by that same philosopher, for whose genius we must feel the highest degree of admiration, where he treats of the faculties or inclinations of the human mind. Now, I do not hesitate to say, that the principal cause of the great development of natural science has been the discovery of the strict order and lawfulness pervading all nature. In no other branch of human knowledge have we been able to discover laws of so exact a precision, so large a generality, and such unexceptional validity as are the physical laws. Wherever the faculties and instincts of the human mind, the energy of the human will intervene, we are not able to determine the consequences with certainty and without doubt. If you know the character, the previous life, the degree of intellect, the feelings of one of your intimate friends as well as it is possible to know them all, you may guess, perhaps, with less or more probability, what he will do under such and such circumstances; but you will find yourselves quite unable to predict it with any degree of certainty. How much greater is the difficulty of such a conclusion when you have to deal with the feelings, the intellect, and the energy of a great number of human beings, as in social science and in history! Although there may be definite laws of the human mind, and although we shall be able perhaps in future time to bring them into a more precise form than men have hitherto succeeded in doing, the number of different influences acting on that inextricable tissue of ideas and feelings and remembrances, called the human soul, is so immeasurably great, that there appears not to be much hope of solving these problems much better than they have been solved.

When you compare with the uncertainty and vagueness of our knowledge in mental and moral science, the great and admirable system of modern Astronomy (which is, as it were, the ideal of scientific perfection, and which is founded on that one simple law of gravitation discovered by Newton); when you look at the precision and certainty with which the phenomena of the heavens can be calculated, in spite of the complicated mutual attractions which influence the motions of celestial bodies—calculations which can be extended over far distant centuries of past and future time—you will see the difference, and conceive what a powerful instrument the exact knowledge of such a general law as that of gravitation is. It has been acknowledged, even by the renowned logician, Mr. Stuart Mill, that the human race has become acquainted with the whole degree of power of firmness and of refinement which the operations of their understanding may reach only by the study of natural laws and the development of their consequences. How would it be possible to embrace within our memory, and to keep ready in our minds, all those innumerable facts and observations stored up in the study of nature, the number of which increases every year, if we could not bring them into a well-arranged order and under the dominion of a few simple laws? The other branches of natural science have not reached that same degree of scientific perfection as Astronomy; but the knowledge of those natural actions, which go on at the surface of our earth, is of even more importance to us: for, in the same degree as we master mentally the overpowering richness of the phenomena which Nature offers to every attentive observer, we become also in reality masters of her forces; by knowing their laws we become able to constrain them to act according to our will; we make them obedient servants of our wishes. Science and industry are interested to the same degree in a complete knowledge of these laws; and we have seen, and shall see, them both progressing together in close connexion. Let me add that natural laws are not only means to understand and to connect those facts which have been discovered already, but that they open also very often the way to new discoveries. Newton's law of gravitation was not only the basis for the explanation and calculation of the motions performed by those planets which had been discovered independently from the knowledge of the law: there are two celestial bodies discovered by the application of the law—at first the planet Neptune, the place of which was calculated by Messrs. Leverier and Adams from the disturbance of Uranus, before anybody had seen it; and, secondly, the invisible companion of Sirius, the existence of which was predicted by M. Peters, of Altona, and which has been really found by Mr. Clark, of Cambridge, U.S., as a feebly shining star visible only in the mightiest telescopes. It is a most astonishing result that inanimate nature, which is itself destitute of the faculties of consciousness and thinking, can be made subject to laws and rules and to the processes of ratiocination, which we used to consider as the characteristic property of mind; and that it is even more accessible to these mental operations than the actions of this our mind itself. Of course we must avoid falling into the error of the philosophers of ancient times and the middle ages, who believed they could find laws of nature by metaphysical speculations, transferring the laws of thinking to the external world. We can find these laws only by the most faithful and unprejudiced observation of nature; but, when we have found them, the development of their consequences shows the most perfect and accurate agreement with nature. Thereby a certain congenialty is revealed between the external world and the logical faculties of our mind; and I might say that the feeling of this relationship gives the real scientific interest to the researches of natural philosophy. The principal reward for the labours and pains of these researches is the satisfaction we experience in subjecting to the dominion of our understanding, as well as of our will, all these forces which appear so irrational and so strongly opposed to our nature until we have penetrated into the mystery of their laws.

For the reasons I have stated, you will perceive that the knowledge of the laws of nature is essential and most important for all scientific investigation. The principal purpose which I shall endeavour to carry out in the present course of lectures, will be to give you an idea of the bearings of such a general law of nature, of the astonishing richness of its consequences, its applicability to all kinds of natural and technical processes, its theoretical and practical importance. I choose for this end the so-called law of the Conservation of Energy, because it has the additional advantage of not having been very long known, whereby the consequences of this law become more striking than those which have already passed into the stock of common scientific knowledge. For a limited number of natural processes—namely, for the motions effected by gravitation and other mechanical forces—the law of which I am to speak was brought forward by Sir Isaac Newton and Daniel Bernouilli; but the first attempts to generalise it for all natural processes have been made only since the year 1842 by different philosophers, independent of each other. I may name here Dr. Robert Mayer, of Heilbronn (a German Physician), Mr. Grove, and myself; but the man to whom we are the most indebted for the new views which have been opened by this great generalisation, although he was not the first to publish it, is Dr. Joule, of Manchester, because he undertook the most laborious part of the work—that of comparing experimentally the principal consequences of this law. Without his exertions and his skill, the new theoretical views would have been probabilities, but not truths.

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The law which I have mentioned establishes that the Sum of Energy, or of the power of natural forces capable of working, which is contained in the Universe, is a constant quantity; that it cannot be increased or diminished, in spite of all the various changes which go on continually throughout the great realm of nature. Now, before going to the subject itself, I must explain at first the meaning of these scientific terms "energy," or "quantity of work." When we speak of the work of machines, it is evident that we apply the term "work" in deriving it from a comparison of the work of machines with human work; and, indeed, there are many and principal points relating to the law which I have named—many similarities which introduce us immediately to the essential points to which we have to direct our attention. The value of human labour and human work depends very much on intellect and on skill. It is clear that if we speak of the work of machines, we have to lay aside all that is the effect of intellect and skill in the machines; for if there are traces of intellect in the work of machines, they are not parts of the machine itself—it is the intellect of the constructor or of the inventor. We have only to regard the blind force which acts in the machine.

The first point to which I wish to direct your attention is that there is the utmost variety of effects and of motions produced by the action of human hands and their work. You know how various the motions of our hands may be, and you know, also, how various are the effects we can produce with those motions. Compare the work of a blacksmith, who lifts his hammer and strikes with it on heavy masses of iron, and the motions performed by the arm of the violin player, who brings forth the most delicate alterations of sound, and the work of the lacemaker, who connects almost invisible threads into a fine web, and you see how various are the effects of human handiwork. When you look to a number of different machines, you will find the same variety of effects, the same variety of motions—motions which are sometimes rotatory, like the motions of wheels,—then, again, motions which go to and fro, like those of pistons,—motions of the utmost degree of velocity, which are so rapid that you cannot follow them with the eye, and motions so slow that you cannot perceive them. But all this variety of the final effect depends upon the same moving force, as well in the work of human hands as in the case of a machine. All the motions of our hands are performed by the contraction of our muscles; they all depend upon the property of our muscles to contract if they are irritated by our nerves. This one force of contractility brings forth all the variety of motion in our hands, and all the variety of effects which can be produced thereby. You find in all these motions one simple, primary cause, one simple force, which is always the same. You find it the same, also, if you look at the different effects of machines. You may have nearly all kinds of machines worked by steam engines. The force of the steam engine is capable of moving every kind of mechanism and producing every kind of work. You have here, therefore, the same variety of final effect by one and the same primary moving force. This is the first point to which I wish to direct your attention, that the variety of effect does not at all imply similar variety of primary causes which produce this effect. There is only a quantitative difference between different exertions of our muscles. Of course, a blacksmith who lifts up his heavy hammer must perform a greater exertion of his muscles than the violin-player or lacemaker; and, in the same way, those steam-engines which have to drive rollers, and hammers, and cylinders of great iron works, require far greater power than a small corn-mill driven by water, which moves millstones, or the little mills one sees sometimes in the houses of the peasants in the Tyrol, which are moved by water, and have no other use than that of rocking the babies in their beds. You have a difference of quantity in the power of machines, and this is the only difference which we want to find for the moving force. Therefore, we may speak of a different quantity of energy of the moving power of a machine, and we may compare this with the different exertions of our muscles in performing different kinds of handiwork. There are some other circumstances in which human handiwork and the work of machines is similar. Our muscles are fatigued when we use them. We cannot do more than a certain quantity of work during a certain time. Our muscles want repose and food for restoring their energy and their power. Now, it is not quite so evident beforehand that the same is the case with machines. We shall see hereafter that those forces also which drive and move our machines are exhausted by doing the work itself, and that if there is not a continuous, fresh supply of energy they lose the faculty of working again—they are also exhausted in their energy.

Now this comparison of the working power of machines with the working power of our hands may give you at first an idea of the meaning of these terms; but we must have an accurate definition of what we are to understand by the name of Energy, and that can only be given if we consider in what way energy may be measured. The simplest way to measure the amount of energy is seen in those cases where we apply the simplest and best known of physical forces, the force of gravity. Take, for instance, a common Dutch clock, which is moved by a falling weight. There you have a cylinder, round which a string is wound, and on the string there is fastened a weight; the weight sinks down; it draws the string with it, the string moves the cylinder, the cylinder is connected with the wheels of the clock, and so the whole clockwork is moved. Now, I beg you to remark that the clock cannot be kept going without the descent of the weight, and when the weight has arrived at the lowest point to which it can get, the movement stops, and the clock cannot go on. You see that the force of gravity which moves the weight produces motion and alteration only so long as the weight is sinking, and that the power of moving the clock is exhausted by the sinking of the weight itself. When the weight is down, we can raise it by the force of our arm; it then sinks again, and as long as it sinks the clock moves. You see here the same circumstance I have before mentioned, that the power of moving the clock is exhausted by its own effect, and that this exhaustion of the energy or the moving power of the weight is necessarily connected with the motion itself. In this case, the work which the weight does is not very great; it has only to overcome the resistance made by friction or the resistance of the air and the loss of motion caused by the little shakes and beats which different parts of the clockwork perform; but these resisting powers must be overcome in order that the clock may go on. This example gives us the means of measuring the quantity of work which is performed. If you take two clocks constructed in the same way, with an equal weight, they will go at the same rate. You may connect the two weights into one, and the double weight will be sufficient to do the double work. The work to be done by the weight increases as the weight itself. Or you may double the length of the string, and so double the amount of work which is done. The whole quantity of work which is done in the clock is proportional to the length of the string or to the distance through which the weight can fall. Therefore we find that the amount of work done by such a weight falling under the influence of gravity, is proportional at first to the weight itself, and, secondly, to the height through which the weight can fall; so that we must measure the quantity of work which is done by a falling weight by the product of the weight with the height through which it falls. And if we measure the weight by pounds, and the height by feet, it will be the product of one pound and one foot, or a number of pounds and a number of feet; and we call the unit of this measure, for measuring energy or work to be done, a foot-pound. A pound falling through four feet, therefore, gives a quantity of energy measured by four foot-pounds. The same with two pounds falling through two feet, or four pounds through one foot. Now, in this case we must wind up the weight by the force of our arm; by that means we impart a certain quantity of working-power to the clock, and this working-power is given out and used during the next day, as long as the clock goes, by overcoming friction. We do not gain in this way new working power. If we want to gain work, we must use weights which are lifted, not by the strength of our arm, but by other natural processes. There is a sort of machine which is driven, indeed, by the falling of weights, namely, over-shot water-mills, of which we have here a sketch. You see the water flowing down from a height upon one side of the wheel, which in that way becomes heavier, and it is drawn down by the weight of the water. The little boxes into which the water falls are emptied when they go up on the other side, and, therefore, have no weight; so that the wheel is always heavier on the side where the water flows. It is the weight of the falling water which moves such a wheel; and you see that we have here the same circumstances as in the case of the clock moved by the falling weight. Here, also, the water cannot move the wheel unless it descends—comes from a height to the lower part; it can only be moved by the water sinking down, and the energy of the water is destroyed by the motion of the wheel—the force of gravity is lost. Now, such a heavy body which comes down from a height does not lose its gravity.

The water is as heavy when it arrives at the lower part of the wheel as it was on the superior part of the wheel; and the weight moving the clock is as heavy when it touches the ground as it was when it was wound up. It does not lose its gravity; but those conditions under which alone the gravity can act, under which the force of gravity alone can produce an effect, a change, or alteration—those conditions are altered; and if the weight is upon the earth, gravity can only fix it, so that it lies quietly on the ground; it can produce no other motion or change.

There is a common objection made to these statements that I have brought before you, taken from every-day experience. You know that one uses levers, pulleys, and other machines, cranes for instance, for raising great weights. One man who is not at all capable of raising a heavy stone, can do it with the help of such pulleys as you see here; and the common belief is that by such machine it is possible to make a heavy weight light, and to gain a quantity of work. Now, if you look accurately to this matter, you will see that whenever by the construction of such an apparatus it becomes possible to raise a heavy weight by slighter exertion or by a lighter weight, the time increases as much as the exertion of the arm is lessened. We have here a single pulley and two equal weights which are in equilibrium, so that I can move them with the slightest exertion of my finger. As I draw one down, the other will ascend; and the distances through which both the weights move are equal. We have here also a more complicated form of pulley, used for raising heavy stones. By its means we can lift double the weight which can be drawn by a man; but then double the time is used for raising it. Here is another still more complicated, by which we can lift four times the weight; but the distance and the time will be four times as great. It is the same thing with levers and cranes. In all these cases the time of working is increased as much as the exertion is diminished. There is really no gain; it is only that the exertion of the man who works such a machine is brought into a more convenient form. Here is another form of work, in which a wheel is driven by rapidly flowing rivers; the wheel dips only with its inferior margin into the water, and is moved, not by a falling weight, but by the velocity of the river. We have many other cases where velocity gives a power of motion. Take the case of a rifle ball. If you put a bullet into your hand, it lies quietly there, a harmless thing. If you move it by the force of gunpowder, it has a great velocity, breaks through all hindrances, and developes a most intense power of destroying. Here we have a ball suspended by a string, forming a pendulum. It is now at its lowest level. If I lift it on one side, and then let it go, it will descend to its former place with a certain velocity; and if I do not disturb its motion, it will go up the other side and return again to my hand. So that you see the energy which I have imparted to the pendulum by raising it, is at first changed into velocity, and the velocity is again changed into this form of energy which is given by a raised weight. You have in this instance a change of the energy of a raised weight into velocity, and of velocity into a raised weight; for at the ends the pendulum has no velocity, but it is a raised weight; in the midst it has velocity, but it is down to the lowest level which it can reach. The first form of energy is lost, but it has gained a second form of energy, that of velocity; and again the velocity is lost, and the energy of a raised weight is gained. You see by this simple experiment, that the energy imparted to the pendulum by raising it can be turned into quite another form; and from the second it can return to its first form, going up just as it went down. The cause of this is the so-called inertia of such heavy masses. Every amount of matter which is moved cannot cease to move, if it is not hindered by any force. When there is no force to diminish the motion, it must go on to all eternity in a straight line. Therefore, if the pendulum comes down to this lowest point, it has its velocity, and the velocity can only be destroyed by force; this force is the gravity which is opposed to the motion, which gradually diminishes it, so that the pendulum comes to repose at its lowest point.

Other mechanical forces, like elasticity, are of the same description. In the common watches and timepieces we have as a moving power, not the gravity of a weight, but an elastic spring. When the watch has ceased its motion, we must wind it up; we then impart new power, new energy to the wheel-work, so that the watch can go on again. In this case, also, you see that the working power is exhausted by its own effect, and that it cannot work without being destroyed. When we wish to gain by the force of elasticity, we cannot do it by winding up the spring, for then we only impart energy to the spring, and we must give this energy by using our arm. To gain energy and working power by elasticity, we must choose instances where the tension of an elastic body is produced in another way, by other processes of nature. Now, we can act upon elastic bodies by chemical processes and by the action of heat. We have here a glass vessel as used for saturating water with carbonic acid. In the inferior part of the glass vessel we have pieces of chalk, to which I have put some hydrochloric acid. You see, as the gas developes, the coloured water contained in the vessel is lifted to the upper part, and we might raise the column of water much higher if the tube permitted. We can raise a column of water in the same way by the action of heat applied to air and increasing its elasticity. We have here a tin vessel with a little water at the bottom, and above there is a glass tube communicating with the air. By pouring boiling water on the upper surface of the vessel the air is warmed and its elasticity is increased; the water is thus raised, and a jet produced, as you see. In this case the air is enclosed by water, which falls at the bottom of the vessel. We have the same effect in the steam-engine, only on a larger scale and going on continuously. There it is not water which encloses air, but the solid piston which fills the cylinder, and which is moved on one side by the steam generated by the influence of heat; then the connections of the cylinder with the boiler are changed, and the steam comes in the other side and moves the piston there. We do not use heated air, because the expansion of heated air is not so great as the expansion of water which is changed into steam. We find, then, that heat can be used as a moving power. Now, the question arises, is the moving power of heat also destroyed by its action, and has a certain quantity of heat (as, for instance, the heat developed by burning a quantity of coals) a limited amount of working power which can be produced by it? or is the working power to be produced unlimited? It was difficult to answer these questions as long as the old theory of heat was held by scientific men. According to the old theory of heat, it was considered as a sort of imponderable matter spread out through all ponderable bodies. Now, the first characteristic peculiar to matter is that its quantity is constant, that its quantity cannot be diminished or augmented; therefore, natural philosophers who were of this opinion were obliged to infer that the quantity of heat could not be diminished or increased, and it was not clear from what effect the working power of heat should be derived. There were some experiments in which heat vanished and became again apparent; but they were considered to be cases in which heat only became latent heat, or latent heat became apparent. In many cases formerly observed, it was possible to give such an explanation of the phenomena; but there are other instances in which that is not so. Take the case of any heavy body falling down from a height. We have seen that in some instances such heavy body, after falling, can rise again, and go to the same height as that from which it came; but in the common cases, if a heavy body falls to the ground, it lies there, and is no longer moved. The force which produced its motion seems to be lost, but in reality it is not lost; we find that the body which fell has become heated—not much, but sensibly. There are a great number of other influences which seem to destroy mechanical work. We know that, in spite of the law of inertia, according to which every motion should go on in a straight line to all eternity, in all our experience collected from terrestrial phenomena, all motions cease if they are not kept up by new moving forces. There is always friction, and the resistance of the air, which destroys a part of the motion; and there are the impacts and shocks of the different parts of the engines; and we cannot keep up a terrestrial motion without diminishing it by those influences. You know from daily experience that in those instances where resistance exists heat is generated. If the wheel of a carriage cannot be moved easily enough—if it is stiff and has great friction, which opposes its motion, you will find, if you put it into motion with greater power, the wheel becomes heated, and it can be heated so much that it begins to burn. Rubbing a common match along a piece of wood, you see that it is inflamed; the small quantity of inflammable substance on the top becomes so heated that it is inflamed and burns. If you strike a flint with a piece of steel, you see sparks flying off. The sparks are only small glowing particles of the flint and the steel, which are heated by the force of impact. You see, then, that such small powers as these are capable of giving heat; indeed, it is a constant effect of impacts and of friction that heat is produced. Now, one

of the greatest results of our modern investigations, and principally of those of Mr. Joule, is that the quantity of heat which is produced by the loss of working power is proportional to the amount of working power. If you measure the amount of working power by foot-pounds, then you can calculate how much heat is developed. According to the results of Mr. Joule, the heat which is required to increase the temperature of a quantity of water one degree of Fahr. can be produced by a power which is equal to the amount of work done by the same quantity of water falling down 772 feet. This number 772 is called the mechanical equivalent of heat—the equivalent of one degree of Fahrenheit, and it is quite a constant quantity. In all cases where heat is produced by mechanical power, we find that so much heat is produced as is given by this equivalent. Therefore, if a stone falls to the ground, its motive force disappears as it seems, but in reality it disappears only as the motion of the great visible mass of the stone; it is altered into small vibrations which go on in the molecules of the stone and the ground which it has touched, and it can be re-changed. You have seen that we could raise a weight of water by the power of heat; and we have seen that the pendulum, after falling down, is raised again by changing its velocity into an elevation. Commonly heat is produced by chemical processes, by the burning of coal. The coal which burns is combined with oxygen; and you may consider the affinity of the coal to oxygen like the force of attraction working only at very small distances. This force of attraction, which draws together the molecules of the coal and of the oxygen, must give the same effects as the force of gravity drawing down a weight to the ground; it must give a great velocity, and this velocity cannot be lost; because in the motions of the atoms there can be no friction. All friction is only a change of motion of visible masses into motions of the molecules; and therefore in the motion of the atoms there can be no friction. This force of affinity, then, which draws together the atoms of the coal and the oxygen produces a velocity, but a velocity of molecular motion, that is heat; but if this velocity is removed, the force of chemical attraction between the molecules of coal and oxygen exists in the same degree as before, but its only effect is to keep together the atoms which form carbonic acid—they cannot then be separated. You see, then, that the working power of chemical affinity is destroyed by the working itself. We ask, can it be restored? It is only possible to restore chemical force by other natural forces. I cannot show you the restoration of the chemical force of carbon and oxygen combined into carbonic acid, as they cannot be freed again except by complicated processes. But in all our fuel we have not only carbon, but hydrogen; and we can at least show the restoration of the force of hydrogen and oxygen, by conducting an electric current through water, which is the compound of oxygen and hydrogen. By this current we can restore the elements of which water is composed. (Experiment.) You see a number of gas-bubbles going up along the platinum plates, which are in the interior part of the vessels. In this way the two gases are developed in an isolated state. In this case the chemical force of the affinity between hydrogen and oxygen is hindered, and ceases only because resisted by another chemical force, the chemical force of the galvanic battery which gives the electric current. In the battery zinc is dissolved in sulphuric acid, and nitric acid is separated into its elements, so that there is one chemical force opposed to another. But we can do the same thing in another way—we can separate the chemical elements, and restore the energy of their force of affinity, by purely mechanical means, by means of the electro-magnetic machine. (Experiment.) To show the effect of the machine in producing an electric current, I put a small piece of platinum wire between these two points, and you will see that it begins to glow when the machine is worked. The effect of the current produced by the mechanical force of my arm keeps the platinum wire glowing. Heat, then, is here generated by another method—by the energy of my arm, just as I could produce it by rubbing a match on a board. Now, if we connect the machine with a little apparatus for decomposing water you will see that the power of my arm is sufficient to resist the chemical affinity of oxygen and hydrogen. You see that the working power of chemical affinity, if it has been destroyed by the action and the combination of the elements, can be kept up and restored by another action. You see on the screen the inverted images of platinum wires dipped into a small vessel filled with diluted sulphuric acid. I work the machine, and you see the bubbles apparently descending, but, as the image is inverted, they are in reality ascending. You see that in this way also we can restore the power of chemical affinity.

We have, therefore, very different kinds of natural forces all connected together; and the energy which is lost is capable of being restored in another form. We have seen that the energy of a raised weight can be changed into velocity; that the velocity of the weight when it strikes against the ground can be changed into heat; that by heat we can gain mechanical power to raise weights, and so on. We have seen that there exist equivalent relations between these different kinds of natural forces, that we can change one into the other; and modern researches into these relations have given the result, that if one form of energy is destroyed, another form is gained in equivalent relations, so that by another series of actions the first form of energy can be completely restored; that there is no loss, but only a change in the form of energy. From this rate of equivalents we may conclude that there is a store of Energy in the Universe which cannot be increased, or diminished, or changed by any natural action; for all changes in nature are only changes in the form of energy; the energy is brought always into a new aspect; it is neither destroyed nor increased. Therefore, also, all energy that we want for our machines and for the actions of our own body can only be taken from the great store of energy which is contained in the universe; and to understand the actions on the surface of our earth, those actions with which we are surrounded during our life, to find out their real and principal cause, we must look to the great store of energy which is contained in the universe; and this will be the task of our second lecture.

LECTURES ON
THE BRITISH PHARMACOPŒIA:
ITS CONSTRUCTION, ITS COMPARISON WITH THE LONDON PHARMACOPŒIA,
AND THE
VALUE OF ITS NEW REMEDIES IN THE TREATMENT OF DISEASE.

DELIVERED AT

The Royal College of Physicians,

By A. B. GARROD, M.D., F.R.S.;

Fellow of the Royal College of Physicians; Physician to King's College Hospital.

LECTURE V.,(a) FEBRUARY 9.

(Concluded from page 360.)

The *Liniments* have been altered considerably, and two omitted, those of Verdigris and Subcarbonate of Ammonia; but as many as seven have been introduced—namely, Liniment of Aconite, Belladonna, Cantharides, Chloroform, Croton Oil, Iodine, and Turpentine with Acetic Acid. I have already had occasion to speak of the Aconite and Belladonna Liniments, and shall confine my remarks now to those of Cantharides and Iodine.

The first is intended as a blistering agent when employed by itself, or as a rubefacient if united with other milder preparations. It is made by digesting the cantharides in acetic acid, and afterwards percolating with ether. I have used many ounces for the purpose of raising blisters, and have found that one application is almost always effectual. The ordinary acetic acid of 28 per cent. is employed, because the glacial acid produces too severe an irritation of the skin, and is apt to cause in some patients sores somewhat difficult to heal.

The Iodine Liniment contains as much as 109 grains of iodine to the fluid ounce of the preparation, and a sufficiency of iodide of potassium to render the iodine soluble in the rectified spirit. If employed in its undiluted state, it will usually cause the production of blisters.

On looking over the group of *solutions*, one fact will be observed—namely, that in all cases in which the solution is made by directly dissolving a salt, the strength has been adjusted so that each fluid ounce of the solution contains four grains of the substance made use of. This holds good with Liquor Arsenicalis (the former Liquor Potassæ Arsenitis),

(a) Portions, especially of the latter part, of this Lecture were not delivered from want of time.

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Liquor Atropiæ, Liquor Morphiæ Hydrochloratis, Liquor Potassæ Permanganatis, Liquor Sodæ Arseniatis, and Liquor Strychniæ. Such an adjustment cannot fail to prove most convenient to the prescriber, as there will be now no difficulty in remembering the strength of each solution—each fluid drachm containing half-a-grain of the medicinal agent. I must not omit to call your attention to the alteration in strength of the Solution of Hydrochlorate of Morphia; it is now only half that of the London Pharmacopœia preparation. The reasons which led to this change were very cogent. Already the Edinburgh solution contained four grains to the ounce, and in that of the Dublin College the amount was about the same; such being the case, it was considered very undesirable to increase the strength of the preparation in Scotland and Ireland, a change which might have been productive of serious consequences, whereas no such liability would arise from lowering the strength of the London solution. It was also found convenient to effect this change in order to make the morphia solution correspond with those of other substances; besides which, the preparation of the London College was liable to undergo some alteration in strength from the crystallisation of a portion of the Hydrochlorate of Morphia.

Liquor Potassæ has been somewhat reduced in strength: its specific gravity is now 1·058 in lieu of 1·063. Liquor Sodæ is also weaker: sp. gr. 1·047, in place of 1·061, as ordered in the London Pharmacopœia. The neutralising power of the two solutions for acid is nearly the same. In the London Pharmacopœia, Liquor Sodæ was introduced solely for the purpose of preparing the Oxysulphuret of Antimony: now it must be looked upon as a remedial agent, as it is placed in the list of the Materia Medica.

I cannot help thinking that it would be desirable to institute some clinical trials upon the comparative action of the Solutions of Potash and Soda. Both are doubtless direct antacid remedies, and likewise sedatives to the mucous membrane of the stomach. There appears to be also good evidence that potash salts affect the secretion from the kidneys, and soda that from the liver; but still the carbonates of the two alkalies are often prescribed indiscriminately. I have met with two instances in which the difference of action was marked—in one most strongly so. This latter occurred in a patient who had suffered for many years from eczema, covering a large portion of the body, always present in some degree, but occasionally becoming severe. The exhibition of twenty grains of Bicarbonate of Soda was usually followed by relief, shown by a lessening of the irritation of the skin; but the same dose of the Bicarbonate of Potash would at any time aggravate the skin affection, and likewise produce a sensation of discomfort in the stomach. The trials of the two alkalies have been frequently made, and always with the same results.

The dose of Liquor Sodæ is from ten minims to thirty minims, or more. We should increase the amount of liquid in which it is administered as we augment the quantity of the solution.

There is a preparation of lime termed Liquor Calcis Saccharatus newly introduced: it is a solution of lime, in which the alkaloid earth is rendered much more soluble by the addition of sugar. A pint of distilled water will not take up more than eleven grains of lime; but in the Saccharated Solution of the Pharmacopœia 140 grains are present in the same quantity, or about seven grains to each fluid ounce. Under certain circumstances, this may prove a useful preparation.

The only other solution to which I shall direct your attention is Liquor Chlori. It is simply a saturated solution of chlorine gas in distilled water. Being very liable to decompose, it should be used when freshly prepared. As a medicinal agent it may be administered whenever the action of free chlorine is desired; and I should think its advantage over Liquor Sodæ Chloratæ or Liquor Calcis Chloratæ very questionable. It may be employed also as an external application to foul ulcers and other purposes.

The dose is from mxx. to 3j., diluted with an ounce or more of water.

Concerning the small group of *Mucilages* there is nothing of special interest to remark; and with regard to the *Pills* I shall only state that a Compound Colocynth Pill has been introduced in addition to the Compound Extract, into which the colocynth enters in the form of the powdered pulp, and with Barbadoes instead of Socotrine aloes; that there is likewise the same pill containing extract of henbane under the name of Pilula Colocynthidis et Hyoscyami; there is also a pill made with the Saccharated Carbonate of Iron, in the place of the Pilula Ferri Compositus of the London Pharmacopœia; a pill of the Iodide of Iron; and lastly a pill termed Pilula Plumbi cum Opio, containing acetate of lead and opium, the latter ingredient forming one-eighth of the mass.

About the Powders there is little to remark, beyond what we have already had to notice under other heads. You will remember that Pulvis Amygdalæ Compositus and Pulvis Aromaticus are virtually the same as Confectio Amygdalæ and Confectio Aromaticus of the London Pharmacopœia, and that certain alterations have been made in the names of the preparations containing opium. One compound new to an English Pharmacopœia has been introduced, namely, Pulvis Rhei Compositus, long used and prescribed under the name of Gregory's Powder.

In the group of *Spirits* many alterations will be observed, the more important of which we will now shortly notice. In the London Pharmacopœia many of the Spirits made with the volatile oils contained but minute traces of these substances, and hence were but very inefficient remedies, unless given in such quantities that the Spirit administered became an item in the action of the preparation. In the British Pharmacopœia all such spirits are made of uniform strength, containing one third part of the oil in ten parts of the Spirit; such is the case with Spiritus Cajaputi, Spiritus Camphoræ, Spiritus Juniperæ, Spiritus Lavandulæ, Spiritus Menthæ Pepiritæ, Spiritus Myristicæ, and Spiritus Rosmarinæ, and hence the strength of some of these has been augmented many hundred times. Spiritus Chloroformi, made by dissolving Chloroform in Rectified Spirit, differs in containing only one part in twenty; and this strength was chosen as it is known that, if much more concentrated, the Chloroform is apt to separate when the preparation is diluted with water, especially if much saline matter is dissolved in that menstruum.

We have already had occasion to notice Spiritus Ætheris, and the omission of the Oil of Wine from its composition, as likewise Spiritus Ætheris Nitrosi, and its altered preparation and composition, and lastly, Spiritus Ammoniæ Aromaticus, from which the Oil of Cloves has been removed.

The fresh Juices from three plants have been introduced, namely, Succus Conii, Succus Scoparii, and Succus Taraxaci; the preparations consist simply of the expressed juice from the fresh plants, to which one-third of the volume of spirit has been added. These Juices are thought highly of by some Practitioners; they doubtless possess all the virtues of the plants from which they are derived, but we must not forget that their strength is liable to considerable variation, dependent on the season. In a wet season the juice is much more dilute than when the weather has been for a long time dry. The activity of the juice is greatly augmented by the concentration of the sap.

A suppository of Tannic Acid and one of Morphia have been placed in the Pharmacopœia; the former containing two grains of the acid, the latter a quarter of a grain of the hydrochlorate of morphia in each suppository, the basis in each consisting of lard united with wax and glycerine or sugar.

In looking over the group of syrups, some additions, alterations, and improvements will be observed. Syrupus Floris Aurantii is an elegant adjunct to medicines; Syrupus Ferri Phosphatis, a valuable and pleasant ferruginous preparation, each fluid drachm containing one grain of the phosphate of iron; and Syrupus Sennæ, a medicine of considerable power, and an agreeable mode of administering the drug.

We next come to the extensive group of Tinctures. 256 of these preparations are contained in the British Pharmacopœia. As in former Pharmacopœias, we find rectified spirit, proof spirit, spirit of ether, and the aromatic spirit of ammonia employed as solvents of the active portion of the drugs, according to the nature of each; it will also be seen that instead of simple maceration, this combined with the method of percolation has in many instances been made use of; of the value of this latter process I will not speak, leaving the discussion of the subject to the pharmaceutist, whom it most concerns.

Of the individual tinctures I have only to remark that Tinctura Aconiti is only one-third the strength of the London tincture, and hence a more manageable preparation for internal use; Tinctura Belladonnæ, half the strength; Tinctura Conii is now termed Tinctura Fructus Conii, and, from my observations, about twice the strength of that from the Leaves in the London Pharmacopœia. Of the several new tinctures I have already spoken when describing the drugs from which they are made.

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Lozenges, under the Latin name of *Trochisci*, long officinal in the Edinburgh Pharmacopœia, are contained in the British work. They are six in number, and are made of tannic acid, subnitrate of bismuth, catechu, hydrochlorate of morphia, morphia and ipecacuan, and opium. If it is ever desirable to administer the above-named drugs in the form of lozenge, then it is advantageous that a formula for their preparation should be made officinal, more especially in regard to morphia and opium, in order that the amount of the active principle in them should be definite, and that they should be regarded as belonging more to the pharmaceutist than the confectioner. Each tannic acid lozenge contains half a grain; each bismuth lozenge, two grains, united with carbonates of magnesia and lime; the catechu lozenge, rather more than one grain, together with a little capsicum; of morphia, $\frac{1}{36}$th of a grain in each lozenge; of morphia and ipecacuan, $\frac{1}{36}$th of a grain of morphia salt, and $\frac{1}{12}$th of a grain of ipecacuan; of opium, $\frac{1}{10}$th of a grain of the extract of the drug.

The only remaining groups to be noticed are the ointments and wines. Of these little need be said. You will remember that certain preparations, formerly termed cerates, are now included amongst the ointments, and thus one class of pharmaceutic compounds is abolished; in other respects, also, the groups have been simplified. There are a few new introductions, as Unguentum Aconitiæ, Unguentum Atropiæ, Unguentum [Calomelanos, Unguentum Cocculi, Unguentum Creosoti, Unguentum Hydrargyri Iodidi Rubri, Unguentum Plumbi Carbonatis, Unguentum Plumbi Subacetatis, Unguentum Terebinthinæ, and Unguentium Veratriæ. The ointments made with the vegetable alkaloids are of uniform strength, all containing eight grains to the ounce of prepared lard.

The only point worthy of notice in the wines is that Vinum Ferri is now made by dissolving the Tartarated Iron in sherry wine, instead of digesting Iron Wire in the same, and that Vinum Opii is made from opium itself, instead of the extract, and without the addition of the aromatics. Time will not allow me to dwell at any length upon the Appendices of the British Pharmacopœia, nor is it at all necessary to do so in lectures which have been more especially devoted to the therapeutic value of the medicines.

In Appendix A will be found articles employed in the preparation of medicines, and such an account of the properties and composition of them as may be necessary to their right understanding.

Appendix B (1) contains the articles employed in chemical analysis; and Appendices B (2) and (3) the test solutions both for qualitative and quantitative or volumetric analysis. Appendix C, a list of the elementary substances mentioned in the British Pharmacopœia, with their symbols and equivalent weights; and lastly, in Appendix D will be seen the relation of the measures to the weights of the British Pharmacopœia, and the relation of these to metrical weights and measures.

I have now, so far as time has permitted me, given a slight, but, I fear, very imperfect account of the remedies newly made officinal by the publication of the British Pharmacopœia, and likewise of some of the more important alterations which have been made in the various preparations of the medicines therein contained. I have occasionally expressed doubts as to the efficacy of some of these new introductions; but when I have done so it has been from the result of clinical observation alone, and from no theoretical opinions which I had previously formed or imbibed. Many, and, in fact, most, of the results which I have stated to you have been arrived at since the decision at a conference of the whole Committee as to the remedial agents and preparations which should be introduced into the work. I doubt not but that the truth of some of my statements will be called in question. All I can say with regard to them is, that, should further experience render a modification of any of my views necessary, I am freely open to conviction and correction. In pursuing my observations on the action of medicines and on their therapeutic value, I trust I have, after some years of experience, so trained my mind as to *wish* for no results but truth alone, and to feel equally satisfied whether my pre-conceived ideas of the efficacy of any favourite remedy proved fallacious or correct when brought to the test of rigid clinical study. I have not scrupled to make known negative results, for I feel convinced that a record of unsuccessful trials is of great value.

Whether speaking in favour of or against any remedy or preparation, I have carefully avoided alluding to individual members of the Pharmacopœia Committee, or attributing introductions or omissions to any one. For my own part, as a member of that Committee, although I may not agree with everything that has been done, I feel it to be my duty to take my share of responsibility with my colleagues. That the work should be perfect, or even approach perfection, could not be anticipated, seeing the necessity of uniting in one Committee minds in many respects differing so greatly—minds which had been long imbued with such diverse opinions.

Still, I cannot help feeling satisfaction and pleasure that throughout our work the labour has been lightened by the kindly feeling which has been felt and expressed among the different members of the committee; and that, at last, a national Pharmacopœia has been produced; it will rest with the Medical Council, in the publication of a future edition, so to construct the committee entrusted with the task of revision as to bring the different portions of the work into a harmonious whole, and to make it one which will be more fully adapted to the wants of the Profession in the different divisions of the United Kingdom.

I cannot conclude these lectures without expressing my thanks to you, Mr. President, for the kindly interest which you have expressed regarding them, and to you, gentlemen, for the patient attention with which you have listened to my somewhat tedious remarks; my only regret is, that I have so imperfectly accomplished the task with which I have been honoured by this College.

To those gentlemen who have so promptly responded to my request for specimens for the purpose of illustrating these lectures, to Messrs. Bell and Co., Mr. Squire, Messrs. Morson and Son, Messrs. Sanford and Blake, and Messrs. Hopkin and Williams, I am under a debt of thanks.

ORIGINAL COMMUNICATIONS.

ON TRICHINA DISEASE: ITS PREVENTION AND CURE.

By JULIUS ALTHAUS, M.D., M.R.C.P.
Physician to the Royal Infirmary for Diseases of the Chest.

(Concluded from page 364.)

Up to 1860 the diagnosis of trichiniasis had never been made in the living subject. In that year, however, Dr. Zencker, of Dresden, recognised an epidemic of this disease in the town and neighbourhood of Dresden, and showed the existence of trichinæ in a ham and several kinds of pork sausages of which the persons affected had eaten. The pig had been slaughtered at a country house near Dresden. The butcher and others who ate of it fell seriously ill, and one case, which was that of a servant-girl who had been quite well up to that time, ended fatally. At the autopsy, an immense number of trichinæ was discovered in the muscles of the body. Dr. Zencker sent specimens of the ham, as well as of the muscles of the dead body, to Professor Virchow, of Berlin, who made a series of important experiments with them. A rabbit was fed with the trichinous meat, and died a month after. The autopsy showed that trichinæ had become developed in the muscles of the rabbit. Another rabbit was then fed with flesh from the first, and it also died a month after. Flesh was again taken from the latter animal, and three other rabbits fed with it; two of these died three weeks, the third a month after. From the latter another rabbit was infected; it died six weeks after. In all of them the muscles were crowded with trichinæ, so that in every piece of flesh, however small, several worms were found. In order to be quite sure that there were no trichinæ in the rabbits before they ate the trichinous meat, Professor Virchow examined their muscular tissue before feeding them, and did not find a trace of trichinæ, which are, in fact, never observed in rabbits unless they are previously fed with trichinous meat. He also found trichinæ in the lymphatic glands of the intestines, the peritoneal sac, and the pericardium. Since then numerous evidences of trichina disease have been recognised in Germany.

The morbid symptoms caused by the immigration of trichinæ are interesting in a practical as well as in a scientific point of view. There are, in fact, few internal diseases where the cause of the disorder is so manifest, and where its action on the system may be so distinctly traced in all its successive stages.

Trichiniasis is a more or less severe affection, according as few or many parasites are eaten, and a small or large progeny is produced. Thus, in the epidemic of Burg, near Magdeburg

a woman who had eaten a quantity of raw pork with bread fell ill and died. Her child, who had sucked a spoon used by the mother, had symptoms of mild trichiniasis, and recovered.

Three stages of the distemper may be distinguished, the *first* of which comprises the time from the arrival of the trichinæ in the intestines until the birth of the first of the progeny. This stage generally lasts from four to eight days, and its symptoms are by no means remarkable. There is only loss of appetite and general malaise. The *second* stage is the most important one, and lasts from the time when the embryos commence their migration from the intestinal canal into the muscles until they have taken up their permanent abode in the muscular tissue. The first symptoms in this stage are generally those of a more or less violent irritation of the bowels. There is pain in the abdomen, and either profuse diarrhœa or, what is more frequent, obstinate constipation. In severe cases—that is, in such where the number of trichinæ is very large—fever of a typhoid character soon sets in. There are rigors, followed by heat; the pulse rises to 130 beats; animal temperature is increased; there is loss of appetite, general prostration, and sometimes even delirium. The urine is highly coloured, and contains sediments of uric acid. The quantity of urinary water is sometimes diminished and sometimes normal. The fever is no doubt caused by the irritation set up by the worms acting at the same time upon an innumerable multitude of primitive nerve fibres, capillary vessels, and other delicate structures.

A symptom scarcely ever wanting is early *œdema of the face*, where most of the muscles which become infected by the trichinæ lie close under the skin, and are not covered by fasciæ. The œdema of the lower extremities and other parts of the body, which may be observed at a later period of the disease, is due to a hydræmic condition of the blood which is gradually developed.

The symptoms caused by the parasites in the muscles themselves are not less striking. There is pain, especially if the patient attempts to extend the muscles; these are rigid and swollen, and there is a feeling of great lassitude. The muscular pains are generally first perceived in the legs, and are increased by pressure and by voluntary movements. They are more considerable at the first attempt to move which is made by the patient after they have remained for some time in the same position; the movements which are afterwards made are not quite so painful. Muscles which have special functions are affected in a special manner. Thus, dyspnœa is produced by trichinous infection of the diaphragm, the intercostals, and other muscles of respiration. If the muscles of the larynx are infected, there is hoarseness and loss of voice. By trichiniasis of the tongue and the muscles of mastication and deglutition, the processes of speaking, masticating, swallowing, are impeded or rendered impossible. In cases of extreme severity, the muscular irritation is so great that the patients are quite unable to move, just as in cases of rheumatic fever—with this difference, that the joints do not suffer. The extremities are, as it were, transfixed in a half-flexed position. The fever soon becomes of a more asthenic character; the temperature rises to 104°; profuse perspiration sets in; miliary vesicles appear on the surface; the mind wanders; meteorism, diarrhœa, decubitus, hæmoptœ, lobular pneumonia, and effusions in the pleura may be observed; and at last death ensues with all symptoms of excessive prostration and irritation of the nervous centres. A fatal issue may take place five days after the commencement of the illness, but it mostly occurs during the third or fourth week. The average duration of the second stage of trichiniasis is from three to six weeks. If pregnant women are infected, abortion takes place.

The *third* stage, or chronic trichiniasis, commences as soon as the parasites have taken up their permanent abode in the substance of the muscles, and have begun to coil themselves up and to be encysted. The function of the muscles still remains disturbed for some time, and they may be weak and stiff for months. In a few cases, baldness of the head, desquamation of the skin, and painful furuncculi have been observed to follow.

I have no hesitation in expressing my belief that, on reading the foregoing account of the symptoms of trichina disease, many Practitioners in this country will recollect cases of this kind having at one time or another fallen under their notice, and which, in the absence of sufficient information on the subject, have most likely been set down as forms of typhoid fever.

Trichiniasis in man is probably always caused by eating raw or underdone pork, ham, and sausages. Beef, mutton, poultry, game, etc., never contain trichinæ, and those other animals in which the parasites have been found (viz., the cat, mole, crow, hawk, and jackdaw), are scarcely ever eaten. In Paris, however, where cat's flesh is notoriously served up in certain *cabarets*, men may become infected with trichinæ by eating of such ragouts.

The wisdom of Moses in forbidding the Jews to eat pork (a) has thus received an additional striking proof. It may be that Moses forbade pork to be eaten because pigs take unclean and putrid food; but it is just as possible that he may have done so after having observed people fall ill and die after eating pork. In the less complicated conditions of social life at that time, observations on the effects of poisonous meat could be made with far greater facility than is possible now, and if a large number of persons fell ill or died after partaking of meat from one slaughtered animal, the cause of the accident must needs have struck an accurate observer.

Some years ago, when it was shown that tapeworm in man is caused by eating pork containing cysticerci, it was believed that Moses' law regarding pork was made for the prevention of tapeworm; but tapeworm seldom causes considerable illness: it is not really dangerous to life; and if pork was forbidden from a knowledge that it produced disease, it is far more probable that the law was meant for preventing that disease which is now known to us as trichiniasis.

The *diagnosis* of trichiniasis may, in somewhat severe cases, be easily made during life. The course and the symptoms of the distemper are, in fact, very peculiar. In mild cases there are gastric disturbances, pain in the muscles, and œdema of the face. In severe cases there are, besides these symptoms, swellings of the muscles, fever of a typhoid character, but no tumour of the spleen. There is, moreover, dyspnœa and hoarseness. If, under such circumstances, the patient admits of having a short time ago eaten raw or underdone pork, ham, or sausages, and especially if several patients are affected at the same time in the same house, or in the same neighbourhood, there is every probability of the disease being trichiniasis. Absolute certainty, however, is only to be acquired by finding trichinæ either in the evacuations or in the muscular tissue.

To show trichinæ in the evacuations is very troublesome to the Physician, and to show them in muscular tissue not very pleasant to the patient. If the fæces are not fluid water must

Fig. 9.

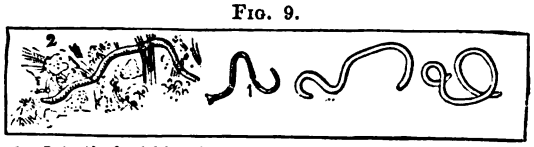

Fig. 9.—Intestinal trichinæ from a young dog, five days after having been fed with trichinous meat. 1 is a male trichina, with cones at its posterior extremity; the others are females. At 2 the parasite is surrounded with fæcal matter.

be added to them, and the matter is then brought, drop by drop, upon the object-glass. With a magnifying power of 20 m.d., we may be able to find intestinal trichinæ, but the examination takes several hours to accomplish, and often yields negative results, although the patient is infected with the parasites.

For showing the presence of trichinæ in muscles, it is necessary (unless there should be, by chance, an open wound in which a muscle is laid bare) to take out a small piece of any muscle and examine it. The operation may be done by Middeldorpff's harpoon, or a small incision may be made at the lower portion of the deltoid, where issues are usually made, and a piece of flesh the size of a lentil may be cut out by Cooper's scissors. If there are any muscular swellings, it is best to take the specimen from the muscles thus affected, and examine it with the microscope. Such a proceeding is by no means dangerous, and quite justifiable. If the disease is severe, the first specimen taken generally contains trichinæ. If certain muscles are

Fig. 10.

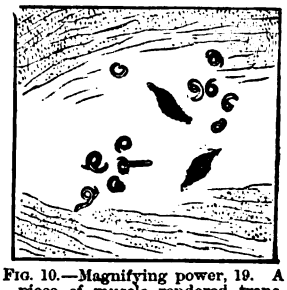

Fig. 10.—Magnifying power, 19. A piece of muscle rendered transparent by the addition of acetic acid. There are two encysted trichinæ in the middle; the others are free.

(a) Leviticus, xi. 7—8:—"And the swine, though he divide the hoof and be cloven-footed, yet he cheweth not the cud; he is unclean to you. Of their flesh shall ye not eat, and their carcase shall ye not touch." The same is repeated, Deuteronomy xiv. 8.

more swollen than others, it is best to take specimens from the former. Where the cysts are calcified, no magnifying power is necessary. If the trichinæ are encysted, but no earthy deposit has as yet taken place, an ordinary magnifying-glass shows them in a distinct manner, especially if diluted hydrochloric acid is added.

The only formations which may possibly be confounded with trichina-cysts are the so-called Rainey's corpuscles,

Fig. 11.

which are sometimes found in the muscular fibres of the pig, and have received their name from having been first described by Mr. Rainey. They consist of a dark granular mass, enclosed by a transparent ovoid cyst, and are found imbedded in the interior of primitive muscular fibres, which are thereby somewhat dilated. The nature and mode of development of these formations are at present unknown. It is only certain that they have nothing to do with trichinæ, and they never enclose a worm; so that an accurate observer will always be able to distinguish them from trichina-cysts. Rainey's corpuscles are never found in human muscles.

The *prognosis* of a case of trichiniasis depends upon the circumstance whether the person affected has eaten few or many trichinæ. Where few have been eaten, the patients may feel unwell, but they soon recover. Even in cases of medium severity a fatal issue is rare, and after an illness of a few weeks convalescence sets in. Cases of great severity either end fatally, or the patients very slowly recover, after having been dangerously ill for weeks, and they remain weak and out of health for months afterwards. Of special importance for prognosis are the muscular pains and the fever; if both are severe, the prognosis is mala, or at least dubia.

As regards the *treatment* of trichiniasis, the results have, up to the present time, not been very satisfactory. Many patients have died in spite of treatment, and those who recovered would probably have done so without special treatment. Professor Friedreich has recommended using the picronitrate of potash, which, in a case he had under his care, appeared to exercise a most beneficial action; but further experiments by Dr. Fiedler and Professor Mosler have shown that this substance, even if given in large doses, kills neither the intestinal nor the muscular trichinæ, nor does it prevent the immigration of the parasites into the substance of the muscles; so that a further use of that remedy in trichiniasis does not appear justifiable. On the other hand, Professor Mosler(b) has found, as the result of careful experiments, that benzine (or benzole) is a poison for trichina. Benzine was discovered by Faraday, in 1825, and is represented by the formula

$$C_{12}H_6.$$

It rapidly kills lice and other vermin, and seems to have the same effect upon cysticercus and trichina. But benzine is also a powerful poison for large animals and man, and, if used in the treatment of trichiniasis, should be employed with special caution. A rabbit can take ten grains, a pig thirty grains, and a cow half an ounce of benzine per diem without its producing alarming symptoms of poisoning. From thirty to forty drops may be given to an adult man *pro dosi*, and, as the smell and taste of this substance are peculiarly nauseous, Professor Mosler has recommended it to be given in the form of "capsules gé'latineuses," each capsule to contain ten drops, and one to be taken every two hours. Up to the present time benzine has not yet been employed in trichiniasis in man, but its use in the more severe forms of this affection seems justifiable. It would, however, be most desirable to discover an efficacious drug which is less noxious to the system than benzine.

In most cases a symptomatic treatment must be resorted to. If the Practitioner should be called in soon after the taking of trichinous or merely suspicious meat, an emetic should be given at once. At a later period, neither emetics nor purgatives seem to do much good. The experiments of Fiedler, which have just been published,(c) have, indeed, shown that even large doses of purgatives have not the least influence in removing trichinæ from the intestinal canal, nor to prevent the development of the embryo and their immigration into the muscles. For the muscular pains, tepid fomentations, or frictions with oil of hyoscyamus are useful, or the patients may be subjected to a moderate cold-water cure. If the fever is very severe, mineral acids and digitalis are the best remedies, and care must be taken to regularly empty the bowels and the bladder. In profuse perspiration and miliary vesicles, fomentations with vinegar may be employed. If œdema is troublesome, diuretics, especially ol. junip., should be given, which may be done the more unhesitatingly as the kidneys do not suffer in such cases. Albumen has never been found in the urine, even if there was considerable dropsy. At the same time the vital powers must be sustained by a free administration of milk, beef-tea, and, if necessary, alcohol. Animals infected by trichinæ seem to die chiefly in consequence of being, by the painful affection of the musoles of mastication and deglutition, prevented from taking food; and they live much longer if milk and other nutritious fluids are injected into the stomach. The same holds good for man, especially in cases where high fever exhausts the frame. To most patients, the idea "of being eaten alive by worms" is so revolting that it is better to keep them in ignorance of the nature of the complaint.

In the third stage of the affection the patient should be treated according to general rules. If anæmia or hydræmia are present, tonics, especially iron, should be freely given; if there is stiffness, weakness, and atrophy of the muscles, tepid baths and Faradisation are to be employed.

The old adage that *prevention is better than cure* was never more applicable than to trichiniasis. This disease would, in fact, never occur in the human species, were pork eschewed. This being one of the cheapest meats, it is not likely that its use will be discontinued by the poor, but they might at least be taught the necessity of taking every precaution against the ill effects which may ensue. It has been shown that if pork, ham, or sausages are thoroughly well roasted, boiled, smoked, or salted, all trichinæ which may be present are destroyed. A temperature at which albumen coagulates (144° to 164° F.) kills the parasites; but it is often only the external layers of the joint or the cutlet which undergo this or a greater heat, and the inner fibres generally remain underdone. In these latter, therefore, the blood and albumen are not coagulated; they are soft and of a pinkish hue, and may contain a large number of live trichinæ. On the other hand, it has been shown by the experiments of Küchenmeister(d) that if pork is salted for a certain length of time, or if sausages are subjected to hot smoke for twenty-four hours, the trichinæ are killed. Cold smoking does not kill them unless it is continued for a long period; but when sausages which have been subjected to cold smoking are kept for a long time, the life of the parasites generally seems to be extinct.

It now only remains to be seen what measures of precaution should be adopted by communities against trichinous infection. The following points are the most important for this consideration:—1st. Great cleanliness of the stables in which pigs are kept should be observed, and as pigs can only become infected by eating meat or fæces containing trichinæ, they should as far as possible be prevented from taking suspicious animal substances. 2nd. A microscopical examination of pork should be made before it is offered for sale, either by Medical men, Veterinary Surgeons, or naturalists, who should be paid for their services either by the pork-butchers or by the municipal government. In large towns, each district should have a special slaughter-house for pigs, to which a microscopist should be attached, and no pork should be allowed to pass out without a certificate of its being uninfected. A full examination of one animal may be made in ten minutes by a good observer. In small country places curates, schoolmasters, or others conversant with the use of the microscope, might undertake the office.

Pork-butchers should not oppose such examinations, as it is they who are in the first instance exposed to the danger. In almost all epidemics which have occurred in Germany, pork-butchers, their wives, children, and servants were the first to suffer. In several German towns pork-butchers therefore employ competent observers to examine all animals before offering them for sale; and the meat is therefore guaranteed pure to the public.

In concluding this paper, I have much pleasure in stating that the Medical Department of the Privy Council are fully alive to the importance of the subject, and are taking it into their serious consideration.

(b) l. c., pp. 57—89.

(c) "Wunderlich's Archiv. der Heilkunde." Leipzig. 1864. Vol. v., pp. 1—29.

(d) "Helminthologische Versuche," p. 8.

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REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

ANEURISM OF THE ASCENDING AORTA, COMMUNICATING WITH THE SUPERIOR VENA CAVA —ERYSIPELAS—DEATH.

(Under the care of Dr. GULL.)

[Reported by Mr. GEORGE EASTES.]

THE following case is of great interest, especially as, about ten days before death, Dr. Gull stated, as his opinion, that the patient had an abnormal venous communication in the chest, whether aneurismal or not he could not say:—

John M., aged 34, Arsenal labourer, residing at Woolwich, was admitted into Stephen ward, under the case of Dr. Pavy, on February 5; transferred to the clinical ward, to Dr. Gull's care, on February 15.

February 15.—He is a well-nourished man, of middle height, and has a good family history. He was formerly a private in the 89th Regiment during the Crimean war; several of his toes were then frozen off, many other men being frost-bitten at the same time. Whilst in the Crimea he began to suffer from a cough and dyspnœa, with which he has ever since been afflicted, especially during the winter months. He has laboured in the Arsenal for six and a-half years, but found that hard work increased the severity of the above symptoms. About five weeks ago his face began to swell, and became of a purplish hue. His neck grew puffy, then the right arm, and subsequently the left, slightly. The dyspnœa became much worse; he obtained a cough-mixture from a chemist, and then came to the Hospital for advice. For the last ten days he has been under the care of Dr. Pavy; during that time venesection has been performed on two separate occasions, to the extent altogether of thirty-two ounces. The dyspnœa has been considerably relieved, and the congestion about the head and neck slightly so.

At present the appearance of the patient, when stripped, is very striking: the head, neck, thorax, and arms seem to belong to a full-bloated man; while the abdomen and lower extremities seem to be parts of another individual, for they are not gorged with blood, and are of the normal colour and dimensions. The lips and cheeks have a purplish tinge, and are very puffy; the colour disappears upon pressure. The veins of the skin of the thorax are gorged, giving the skin a mottled appearance, which extends from the clavicles as low as to a line drawn horizontally round the body on a level with the apex of the ensiform cartilage. Below this there is no mottled appearance; but the large veins are full, and upon putting a piece of tape round the centre of the abdomen the superficial abdominal veins fill from above. The skin of the lower extremities is normal. The saphenous veins do not show through the skin, and the legs are not swollen. On inspiration the upper ribs on the right side rise very well, while the lower ribs fall in slightly; on the left side this falling in of the lower ribs is a little more marked. A vibratile thrill synchronous with the second sound of the heart is perceptible to the eye over the right side of the chest; it is made more evident by causing a feather to adhere perpendicularly to each side of the chest; that on the right is the most moved. The percussion note is everywhere normal, except that the cardiac dulness in the recumbent position is a little too low. At the apex the first sound of the heart cannot well be made out; the second sound is clear. No murmurs with the cardiac sounds. All over the ascending portion and middle of the arch of the aorta a soft whizzing murmur is very distinct. At the commencement of the arch it is diastolic. Upon moving the stethoscope upwards, the murmur is found to be both diastolic and systolic, but more diastolic. Over the third right costal cartilage the greatest sound is heard. The character of the whiz is venous; it is, in fact, a continuous churning sound. Dr. Gull remarks that it resembles that heard over the thyroid gland when all the vessels are enlarged. There is no sound in the right side of the neck. Anteriorly there is bronchial breathing at the base of the right lung; otherwise the pulmonary sounds are normal. Posteriorly, at both apices the respiration is natural; at each base there is coarse crepitation. At the root of the lungs respiration is slightly harsh. He suffers much from a short, sharp, reedy cough, and his face and neck become much congested at each attack. Sputa mostly frothy and colourless, but mixed with a little yellowish matter. He generally experiences great difficulty in raising the phlegm from the chest. The radial pulse is small, but regular in rhythm, the right being less than the left; 108 beats per minute; respirations, 33. No nausea, nor vomiting, nor difficulty in deglutition. He experienced a sense of tightness about the chest and arms when first admitted; that is now relieved. Has never had a fit. Urine clear, non-albuminous, sp. gr. 1020. Ordered—Acid nit. dil., ♏x.; tinct. aurantii, ♏xx.; syrupi simplicis, ʒj.; ex aqua, ter die. sumend. Bleeding from the arm to twelve ounces. Middle diet and two eggs.

21st.—He has continued about the same since the last report till yesterday, when the thermometer stood below 32°F. the whole day. In the evening I found him suffering much from dyspnœa, and coughing badly. Pulse, 120; respiration, 42 per minute. Ordered, sp. æth. s. co., ♏xx.; æth. tinct. lobel. inf., ♏xv.; ex aquæ. camph., ʒiss., 6tis horis sumend. He has passed an indifferent night. Pulse, 128; respiration, 42. Under the right axilla there is a mottled redness of skin, which is hot; inflammation of the obstructed veins. Ordered, julep ammoniæ, ʒj. c.; æth. chlor., ♏v.; liq. opii. sed. (Battlei), ♏iij., 4tis horis sumend.; brandy, 3 ozs., and arrowroot. 9 p.m.—Pulse, 140; respiration, 52. Great tenderness in right axilla.

22nd.—Pain in axilla worse; the inflammation spreading slowly in all directions.

23rd.—Inflammation still spreading. His neck is less swollen, and the carotid artery can now for the first time be felt beating on the right side; urine clear, decidedly albuminous, sp. gr. 1025; bowels not relieved for three days. Pulse, 118, small and thready; respiration, 42. Ordered, pulv. jalapæ co., gr. xl., statim sumend.

29th.—Since the last report the inflammation spread down the right arm and to the trunk; next, the left axilla and shoulder assumed an erysipelatous blush; and, finally, the skin over the left side of the abdomen became inflamed. Flour was sprinkled over the diseased parts. The cough became at last quite incessant, and after severe suffering he died yesterday at 8 p.m. The same venous roaring sound continued in the chest to the last.

This afternoon an examination of the body was made by Dr. Wilks, eighteen hours after death; the following is his report:—

Head, not examined. On opening the chest, the anterior edges of the lungs were seen to overlap the heart; and on raising the right there was seen to be some recent pleurisy on its under part. The lungs filled the chest, being full of air. The tubes contained much mucus. On opening the pericardium a few flakes of lymph were seen floating in an opaque fluid, showing a recent pericarditis. The aorta was seen bulging forward on its right side, and it was here that the lung was adherent. On removal this protrusion was found to be an aneurism of about the size of the closed fist. It occupied the right side and posterior wall of the ascending aorta; commencing about an inch above the valves, it reached the innominate artery. This description applies to the opening into the sac; the latter projected both higher and lower than this, being seen, indeed, in the pericardium. The sac contained a recent clot, but no ante-mortem fibrine. The walls remarkably thin, and at one spot ready to give way into the pericardium. Passing along the front of the aneurism was the superior vena cava, with the brachio-cephalic at the upper part. On opening the vena cava a perforation was seen at its back part, just as it entered the auricle. This entered the aneurismal sac, so there was a free communication between the aorta and vein. The opening was about the size of an ordinary lead pencil; its edges were smooth, and everted towards the vein. The opening was evidently not very recent. Aorta elsewhere covered with atheroma. Heart natural size.

OBSTRUCTION TO RESPIRATION FROM THE LODGMENT OF A DATE-STONE IN THE RIGHT BRONCHUS — TRACHEOTOMY—DEATH—AUTOPSY.

(Under the care of Mr. BRYANT.)

A girl, 2½ years old, was admitted March 22, and died on the 25th. She was supposed to have swallowed a date-stone, or, rather, to have drawn it into the air passages. The symptoms at first did not appear urgent, but soon the breathing became difficult, although not in paroxysms. The child was raised and shaken, to see if the foreign body could be dislodged, but with no benefit. As the dyspnœa increased,

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tracheotomy was performed by Mr. Bryant, but still with no result; the breathing became worse until death. There were no violent fits of coughing or choking from the beginning.

The post-mortem appearances, as gathered from Dr. Wilks, were as follows:—A date stone was found fixed in the commencement of the right bronchus. It had passed into about its middle, but from its size could get no further, and projected across to the opposite bronchus, or rather to the trachea just above it. Judging from the ulceration in the mucous membrane, it must have been fixed there the whole of the time. In the left bronchus and on the opposite side of the trachea was a depressed spot in the mucous membrane, exactly corresponding with the form and position of the date-stone. It was clear that, as it lay across the trachea, it had partially closed the main passage, and from its shape not corresponding to that of the bronchus that air had no doubt entered the right lung. Probably the great impediment to its exit was the upper point of the date-stone being fixed firmly against the trachea. The tubes were inflamed throughout, and covered with secretion. The lungs were more or less consolidated throughout by lobular inflammation, small grey spots of hepatisation being scattered through both organs, especially in the upper lobes.

MIDDLESEX HOSPITAL.

NECROSIS OF THE PARIETAL BONE — HEMIPLEGIA—TREPHINING WITH RELIEF.

(Under the care of Mr. DE MORGAN.)

THIS case is an example of partial paralysis following injury to the head. The paralysis was on the same side as the most obvious disease, but we must remember that there was pain also on the other side, and from disease on that side we should, reasoning anatomically, explain the production of the hemiplegia. But in some cases in which paralysis has occurred from lesion on the same side of the brain the theory of reflex action has been called in to account for the paralysis.

A case like this, with the exception that the disease was much more extensive, and also on the side opposite to the hemiplegia, we saw, under the care of Mr. Paget, a few weeks ago. A very interesting case of hemiplegia in a monkey following injury to the head (on the opposite side) is recorded by Dr. Haughton in a recent number of the *Dublin Medical Press*.

Not unfrequently after injuries to the head, instead of paralysis, we have unilateral epileptiform convulsions, and, indeed, generally there is both, the epileptiform seizures being followed by paralysis, more or less permanent, in the arm and leg convulsed. We may, perhaps, make the statement wider, and say that epilepsy, or epileptiform seizures from organic disease, are generally unilateral. Hence, epilepsy dependent on syphilis frequently affects one side only, as syphilis often produces deposits in the pia-mater over one hemisphere, thus imitating the effects of injury to one side of the head.

For the following notes of the case we are indebted to Mr. Fergusson:—

Henry McB., aged 28, was admitted on October 6, 1863, under the care of Mr. De Morgan. He was a soldier for eight and a-half years, and received a blow on the forehead at the battle of Inkermann, but continued in action. Seven years ago he had syphilis — chancre with suppurating bubo — of which he got well without treatment. Two years after he felt considerable pain on both sides of the head, and a swelling appeared over the left parietal bone of the size of a walnut, which was very painful. He was admitted into the Hospital and was under the care of Mr. Hulke for five weeks, when he left very much improved. He got worse again, and in sixteen months the skin gave way, and he was readmitted some weeks afterwards.

October 6.—There is now a piece of dead honeycombed bone exposed, about as large as a shilling. A probe can be passed beneath the skin, the ulcerated edges of which are extremely sensitive, to the extent of about an inch and a-half, throughout which space the bone is exposed and rough. There is a large discharge of very offensive matter, which comes partly from beneath the skin, partly through irregular perforation in the bone. The matter coming up through the bone is forced out, mixed with air, by the action of the vessels within, which communicate their pulsation to it. But sometimes there is a cessation of all oozing out of matter, and no pulsation can be seen; then on any momentary excitement, as on his being suddenly spoken to, or on his stooping quickly, the matter and air will well up again, and again gradually subside. His chief pain, however, is over the right orbit, and this he says he has felt ever since the blow at Inkermann. It has become more severe since the swelling came on the left side. The pain is always worse at night.

Towards the beginning of December his health became much impaired, and he began to complain of sickness, and sometimes vomited after food. He had severe pains down the left side of the head, and shooting across the forehead, which were worse when he was up. On standing he became dizzy. The pupils were slightly dilated and sluggish; there was an increase of discharge. These symptoms were relieved for a time by purging and blistering to the neck, but they recurred frequently with more or less severity. On January 20 he had severe shooting pain over the forehead, giddiness, and partial loss of vision, with intolerance of light; the pupils were contracted, and not very moveable, but there was no sickness. The blister again relieved him.

On February 1 it was found that for some hours there was marked loss of power in the left arm and leg. For a short time there was loss of temperature in these parts, but afterwards the temperature rose from two to three degrees above that of the opposite side, and there was considerable hyperæsthesia. For a time these symptoms passed off, but there was occasional slight return. The bone during all this time remained quite firm, and Mr. De Morgan was desirous not to interfere with it if it could be helped. There was a question whether the symptoms depended on the existence of the necrosis on the left side, as he complained continually of pain on the right side of the head, and the paralytic symptoms attacked the left side; but, as nervous symptoms were gradually creeping on, and assuming more serious forms, he determined to trephine, and so to get a perfectly free exit for the pus.

The operation was done on February 15. A medium-sized trephine was applied over the exposed part of the bone, a piece of it removed, and the internal edges pared down. A probe could be passed freely between the bone and dura mater for about two inches around the upper part of the opening. A free incision was made through the scalp over the highest part at which it was detached, and the bone under this part was found perforated and honeycombed just as the exposed portion had been.

The nervous irritation was at once relieved by the operation; the man slept better on the night following it than he had done for months previously. He has since rapidly regained strength and flesh. There is still free discharge of matter, but it is of a more healthy character, and comes principally from between the scalp and the bone. The bone remains still immovable, but the surface of the dura mater and the edges of the ulcerated skin are healthy in character.

CASE OF STRANGULATED CRURAL HERNIA—OPERATION—SLOUGHING AND EXFOLIATION OF SAC—PURULENT ŒDEMA OF THE CELLULAR TISSUE BETWEEN THE ADDUCTOR MUSCLES—DEATH.

(Under the care of Mr. HULKE.)

A charwoman, aged 62, was admitted into Bird Ward, September 14, at night, with a strangulated crural rupture. The symptoms were very urgent, and had lasted three days, during which she had taken several violent purges. She thought her rupture quite a recent thing, but its oblong figure, its extension outwards along the groin, and a certain knobbiness in its outer end, such as thickened omentum might form, favoured the suspicion that it was of much older date.

The taxis under chloroform failing, the rupture was operated on by a limited straight incision at its inner side. It was necessary to open the sac and divide its neck. A small knuckle of deeply congested bowel was returned, and a piece of pellety omentum, weighing, perhaps ʒj., scarcely congested, was left in consequence of its extensive adhesion to the sac. A very copious loose stool was soon passed. The wound suppurated. Her strength declined, and she died on October 9, twenty-four days after the operation.

At the post-mortem examination, the sac was found necrosed and loose at the bottom of the wound. The omentum which had been left in it was congested and infiltrated with pus. The pubic portion of the fascia lata behind the sac had disappeared, the exposed surface of the pectineus was sloughy, and this muscle with the adductors and the intermuscular cellular tissue were infiltrated with purulent serum

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as low as the middle of thigh. The skin over these parts had a perfectly natural appearance. The knuckle of bowel which had been strangulated adhered to the abdominal walls near the crural ring. It was dark red, but not softened or ulcerated.

VERY LARGE STRANGULATED SCROTAL RUPTURE —OPERATION—RECOVERY.

(Under the care of Mr. HULKE.)

A strong, hearty labourer, aged 40, was admitted into Clayton Ward, December 23, 1863, with a strangulated hernia in the right side of the scrotum, measuring eighteen inches round, and eight and a-half inches in its long axis. He had been ruptured seven or eight years, during which he had occasionally, but not lately, worn a truss. The rupture had hitherto been completely reducible, and he was confident that on the previous day the sac was quite empty. Strangulation had occurred at nine o'clock on the morning of his admission. Attempts to reduce the rupture during faintness in the hot bath, and under chloroform, having failed, Mr. Hulke operated at 3·30 o'clock p.m., making a small incision in the axis of the swelling, over the external ring. It was necessary to open the sac, which was as thin as tissue paper, to a limited extent before its contents—a large quantity of small intestine—could be returned. The wound granulated, and had closed soundly by January 5.

On the 7th, his bowels not having acted since the operation, and his belly feeling a little uneasy, a castor-oil enema was ordered. This produced several copious stools, the belly became soft. His food was changed from slops to ordinary food and porter, and he left the Hospital on the 15th, three weeks after the operation.

In some remarks to the students on this case, Mr. Hulke deprecated the injurious practice of giving purgatives soon after hernia operations, where the bowels do not spontaneously act. Here fifteen days had passed without a stool, and in some cases we might wait longer than this without anxiety for the bowel to resume its action.

OBSTINATE URETHRAL STRICTURE OF FOUR YEARS' DURATION TREATED WITH HOLT'S DILATOR.

(Under the care of Mr. HULKE.)

A pale, dyspeptic, hypochondriacal tailor, aged 37, came to the Hospital last spring with stricture of the urethra of four years' date, and chronic catarrh of the bladder. The stricture had been preceded by a neglected gonorrhœa. A No. 1 silver catheter was with difficulty introduced into the bladder. After three months' patient trial, No. 4 only had been reached, and the contractility of the stricture was so great that on several occasions on the third or fourth day after No. 4 had been passed, No. 1 and 2 only would go through. Under these circumstances, Mr. Hulke split the stricture with Holt's dilator, and immediately passed No. 10 catheter easily. This was followed by a rigor. The catheter was passed at intervals of two or three days. He was then taught to use it himself, and he now, February, 1864, micturates freely, and introduces his catheter once a week to secure himself against a return of the stricture.

ACADÉMIE DE MÉDECINE.—The election into the section of therapeutics to fill the vacancy left by the death of M. Moquin-Tandon has terminated in favour of M. Pidoux, who polled forty-four votes, to M. Béhier's fourteen and M. Gubler's twelve.

THE PARIS FACULTY OF MEDICINE.—The summer courses commenced on April 4, and are thus disposed, each Professor lecturing three times a week:—Medical Natural History, MM. Baillou; Physiology, Longet; Midwifery and Diseases of Women and Children, Pajot; Therapeutics and Materia Medica, Grisolle; Legal Medicine, Tardieu; Pharmacology, Regnauld; Surgical Pathology, Gosselin; Pathological Anatomy, Laboulbère for Cuveilhier; Medical Pathology, Monneret; Hygiene, Bouchardat. Clinical Lectures are also to be delivered on Medicine by MM. Bouillaud, Piorry, and Perrot, in place of Rostan and Trousseau; on Surgery, by MM. Jobert, Laugier, Velpeau, and Nélaton; and on Midwifery, by M. Depaul. Supplementary Clinical Lectures are to be delivered by M. Hardy on Diseases of the Skin, by M. Roger on Diseases of Children, and by M. Follin on Diseases of the Eye.

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SATURDAY, APRIL 9.

A LIFE OF PHILANTHROPY.(a)

A NOTICE of the memoirs of the late Dr. Andrew Reed would some time since have appeared in these columns from the pen of a distinguished contributor who was associated with Dr. Reed in more than one of his philanthropic enterprises, but that his continued indisposition has prevented him from carrying out his wish. Though not a Medical man, Dr. Reed took so deep and practical an interest in the well-being and advancement of various classes of sufferers, more particularly of two,—the idiot and the incurable—for whom, when he established the institutions at Earlswood, Colchester, and Putney, no systematic relief had been attempted in this country—that we cannot but regard him as one of the most valuable of those allies who, independently of their own Professional engagements, work also with us in the promotion of the great object of our lives.

Dr. Reed was born in London in the year 1787. On the completion of his education, he was for a time engaged in his father's business of watch-making, but his great natural ability and literary tastes soon prompted him to leave this for a wider and more congenial sphere; and such a sphere the deep religious feelings which he possessed from a very early age led him to seek in the ministry of the denomination to which he belonged. After the usual collegiate course, he became the minister of a large congregation, assembling in Wycliffe Chapel, Stepney, and retained this pastorate for fifty years with remarkable success. Not long, however, had he been engaged in his ministerial work, before the spirit of philanthropy which appeared to imbue his whole nature urged him to enter upon the first of those efforts for the benefit of the orphan and the afflicted, any one of which would have sufficed to perpetuate his memory, but which in the aggregate represent an amount of untiring benevolence which places him in the foremost rank of the benefactors of mankind. In the summer of 1813 he instituted the London Orphan Asylum, and after surmounting a host of difficulties he had the satisfaction of witnessing the completion of the noble building the charity now occupies at Clapton in 1825, and its establishment upon its present secure basis. In 1827 he drew the attention of the public to the necessities of infant orphans under seven years of age, for whom no society had at that time made any provision. In this new undertaking he again had many difficulties to contend with, but his perseverance and energy triumphed; he enlisted the interest and sympathy of Royalty, the Queen became the patron, and the Prince Consort laid the foundation-stone of the Asylum at Wanstead: the friends who had helped him before rallied around him again, and the permanency and success of the

(a) Memoirs of the Life and Philanthropic Labours of Andrew Reed, D.D. Edited by his sons, Andrew Reed, B.A., and Charles Reed, F.S.A. Second edition. London: Strahan and Co.

Infant Orphan Asylum became fully assured. In the course of time, however, having felt obliged to withdraw from active participation in the management of these asylums, from a conviction that charity in its bounty should be wholly catholic, and unrestrained by sectarian limits, yet his earnest benevolence would not allow him rest until he had inaugurated a third asylum for the orphan, now known as the Asylum for Fatherless Children. This asylum he instituted in the year 1844, designing that it should receive the fatherless from their birth until fourteen years old, irrespective of religious connexion, and without the imposition of any denominational test. Its first home was at Stamford-hill, from whence, in 1854, it was removed to an admirably-arranged and handsome building erected on a rising ground near Croydon; the name of Reedham, in commemoration of its founder, being given to the estate by the Board of Management.

In 1847, Dr. Reed, having previously had his attention called to the neglected condition of the idiot in this country, placed himself in correspondence with different Continental Medical men respecting their modes of treatment of idiocy, and the success obtained. Dr. Conolly's interesting report of a visit to the Bicêtre, and a published letter from Mr. Gervis, of Tiverton, calling attention to it, came also before Dr. Reed's notice, and enlisted still more completely his interest in this unhappy class. He visited Dr. Guggenbühl's establishment in Switzerland, the Abendberg, and other similar Continental institutions, and, arriving at the conviction that the idiot is capable of improvement, and of a certain amount of education, he, in the autumn of the same year, inaugurated, by a public meeting, the formation of an Asylum for Idiots. Sir James Clark, Sir John Forbes, Dr. Sutherland, Dr. Little, and many other eminent members of our Profession took an active share with Dr. Reed in the preparation of plans for the care and treatment of the inmates of the asylum, and Dr. Conolly, on a vacancy occurring in the honorary secretaryship, in 1851, accepted (and still holds) that position. Dr. Conolly, with characteristic generosity, speaking in the presence of the Vice-Chancellor of the University of Cambridge, said, "It may truly be said that the attempt now making in this country in favour of the poor idiot is wholly to be ascribed to Dr. Andrew Reed." The Asylum, at first, was placed at Highgate; a branch was subsequently established at Essex Hall, Colchester; finally, in 1855, the inmates of both homes were removed to the noble building at Earlswood. In addition, however, to this great central Institution, Dr. Reed was most anxious that Essex Hall should still be retained as an asylum for the idiots of the Eastern counties. In this wish he was much opposed by many who thought that the two kindred institutions would each interfere with the needed support of the other; but in the end he, as usual, obtained his wish, and the Essex Hall Asylum still flourishes, while other similar local institutions are rising into being. In reference to this event, Sir John Forbes said of Dr. Reed "that the more they knew him the more they would say that he was the most extraordinary man in this city—a man of that great amount of energy capable of sustaining himself against the most difficult course possible, and of sustaining an Institution like the present against any odds." "When Dr. Reed," say his able biographers, "sent forth his appeal on behalf of the neglected idiot, he did so in the belief that this was the most forlorn of all the subjects of affliction, and the only class of sufferers not hitherto cared for by the benevolent institutions of the land. But while thus engaged in searching out the cause which he knew not, there occurred to him another which at once laid fast hold of his tenderest sympathies, and implanted in his mind a deep conviction that when the fitting time should arrive one more work of mercy remained to be accomplished by him. This last object of compassion he found in that extremity of woe which falls to the lot of one who, after long and fruitless attempts at cure, is discharged from the great Hospitals of the land as incurable, and as such disqualified for the duties of life."

In his proposal to establish a Hospital for the permanent care of the incurable whose former station in life unfitted them for the workhouse, but who, "either by disease, accident, or deformity, were hopelessly disqualified" for gaining a livelihood, Dr. Reed received very considerable encouragement from our Profession, always ranked by him "as second only to that of the Christian ministry." A document was signed by forty Hospital Physicians and Surgeons, testifying to the need of the Institution, expressing their approbation of the proposal, and stating that its establishment would in no way interfere with existing Hospitals. Thus certified, this last of Dr. Reed's works of philanthropy, thanks to his untiring zeal, and marvellous aptitude for winning and directing the benevolence of the public, speedily attained success, and on November 27, 1854, the first election of inmates for the Home at Carshalton took place, a crowd of applicants seeking the admission which could be granted only to a few.

"My birthday, (Dr. Reed writes)—usually spent alone in my family; but the time is short, and it seemed to me that I might consecrate it at least equally by devoting a portion of it to the first election of the poor, unhappy beings who seek to secure a last refuge in our new Home. The business of the election went off well. There were many people, and many generous givers; but the circumstances of the new Institution are very peculiar. I was strikingly reminded of the groups which must have often surrounded the blessed Saviour—the maimed, the halt, the helpless, and the crippled. Here was one completely doubled up with chronic rheumatism; another without feet, living on a sledge; another paralysed from birth, and crawling like a reptile. Well, we have espoused their cause: they are all helplessly incurable; and, if God helps us, we will help them.

"The urgent pleadings of these poor helpless ones afflict me. But it is the hopelessness of their condition that afflicts me most. The very breathlessness of their importunity seems to draw my life out of me. Poor things! to win an election is to them not only the struggle of life, but for life; and not a few sink down and perish in the hot and stormy conflict. No case can be so sad as theirs. Theirs is, after all, the extreme of woe.

"The greater the necessity, the greater the charity."

In the closing years of Dr. Reed's life, increasing weakness compelled him gradually to withdraw from actively sharing in the management of the earlier of the institutions he had founded; but his interest in all continued unabated, and in the welfare of the Royal Hospital for Incurables, the youngest offspring of his benevolent zeal, he showed a thoughtful concern almost to the last, examining, and advising on, the plans for the proposed new building to within a few days of his death. He died on February 25, 1862, aged 74, apparently more from natural decay than from any particular malady.

In reviewing the life of so remarkable a man as Dr. Reed, the ordinary terms of eulogy seem poor. He was one of the comparatively few men who, while manifesting an especial capacity in some one or two things, are yet excellent in everything. As a preacher he was characterised by a combined simplicity and earnestness of style, the effectiveness of which was evident from the constant and increasing success of his fifty years' ministry. As a public speaker, his clear and logical address, and impressive manner, never failed to powerfully influence his audience. As an author, his language was singularly refined, well chosen, and expressive, and in his appeals for the charities he founded alike forcible and touching. As a public man, he possessed an almost unique power of enlisting the interest and co-operation of others, and in his transaction of business the highest business authorities speak of him as "unrivalled." Finally, as a philanthropist, he is certainly entitled to a foremost place among his country's worthies. To have founded three asylums for the orphan, two for the idiot, and one for the incurable, constitutes a claim to the title of philanthropist which has been equalled by few. To these asylums he gave munificently of his time, his money, his influence, his thought, and his care; they were wholly the creation of his benevolent mind; fostered by the devotion of his best energies; guided by his judgment, and

maintained by his fervent and ever gratuitous advocacy. He was their strength during his life; he bequeathed to them very considerable sums at his death; and as his presence and visits used to be hailed with delight by those he so greatly benefited when alive, so will his memory never cease to be revered by his friends, and remembered with admiration and respect by all.

THE "BRITISH MEDICAL" TARTUFE.

"When you have no defence, abuse the plaintiff's attorney!" Such is the Old Bailey maxim which we are sorry to see acted upon by the *British Medical Journal*. It has been our unpleasant duty to comment on the thoroughly low tradesmanlike tone which it inculcates, and which, if carried out, will most assuredly damage the social status of the Profession. We never advocated the insane idea that a Medical man shall give away his services indiscriminately; but we do say that this is no argument against giving help on an emergency. Neither do we say that the Medical Profession ought to be called on to do what "society" should do; but yet that is no reason why a poor woman should be allowed to die in childbirth; and it strikes us that if we are to preach to "society," and ask it to put its hands into its pockets, it can only be by pointing to what we ourselves do, and to the character which fortunately we have acquired for ready unselfish benevolence. The *British Medical Journal* has one answer to all arguments. It can call its opponent Tartufe, and there it stops. But our contemporary may be aware that there are characters even less respectable than Tartufe. The philosophical novelist of the last century depicted a Surgeon, a true British Medical tradesman, after our contemporary's own model. Turn to Fielding's marvellous sarcastic tale of "Joseph Andrews." He, poor fellow, had fallen by night amongst thieves, who left him naked and bleeding in a ditch, whence he was rescued by a passing stage-coachman, who brought him to the Dragon Inn, kept by Mrs. Towwouse, and then, before driving on the next stage, says Fielding, "took an opportunity to call up a Surgeon, who lived within a few doors." Meanwhile, the wounded man was put to bed by the chambermaid at the inn. "Imagining, as she afterwards said, by his being so bloody, that he must be a dead man, she ran with all speed to hasten the Surgeon, who was more than half dressed, apprehending that the coach had been overturned and some gentleman or lady hurt. As soon as the wench had informed him at his window that it was a poor footpassenger who had been stripped of all he had and almost murdered, he chid her for disturbing him so early, slipped off his clothes again, and quietly returned to bed and to sleep." If our British Medical tradesman will carry on his research a little further, he may see in the pages of this great writer, as in a glass, what the effect of his teaching would be. Mrs. Towwouse, the landlady, might have been a student of the *British Medical Journal*. The novelist shows us the British Medical philosophy in action. Mrs. Towwouse objects to the charity which her husband was disposed to show to the poor wounded man. "My dear," said Mr. Towwouse, "this is a poor wretch." "Yes," says she, "I know it is a poor wretch; but what the devil have we to do with poor wretches?" "My dear," cries Towwouse, "this man hath been robbed of all that he hath." "Well, then," says she, "where's his money to pay his reckoning?" We wish our space allowed us to show what followed. How Parson Adams came to the Dragon, and claimed acquaintance with poor Joseph. How Betty came and "told her mistress she believed the man in bed was a greater man than they took him for, for besides the whiteness of his skin and softness of his hands, she observed a very great familiarity between the gentleman and him." Whereupon the severity of Mrs. Towwouse's countenance was abated. She said, "God forbid she should not discharge the duties of a Christian, since the poor gentleman was brought to her house. She had a natural antipathy to vagabonds, but could pity the misfortunes of a Christian as well as another. God forbid he should want anything in my house!" We won't follow out this matter, except to say that if the British Medical teaching prevail, and brutality to the poor and servility to the rich be the inevitable rule, future novelists will have no lack of fun and sarcasm in our degraded Profession.

THE WEEK.

THE LADY AT THE "HALL."

Amongst the successful candidates at the "Hall" last week was a young lady, whose pursuit of Medical knowledge has been carried on under obstacles invincible to one of less "masculine" energy. (We hope the adjective will be taken as a compliment.) She is said to have passed a first-rate examination. The Apothecaries' Society, by their "Act," were obliged to admit her to examination. We are by no means in favour of female Practitioners; but in this, as in many other matters, we need not trouble ourselves to prophecy, and may leave the event to time. If an unemployed young lady have the brains and money requisite for the study of physic, we think they would be better bestowed on other pursuits; but there is no chance that Miss Garrett can have many rivals of her own sex.

DR. LIVINGSTONE.

The Medical Profession will read with sincere pleasure the following letter, which appeared in the *Times* of the 1st inst.:

"*To the Editor of the Times.*

"Sir,—By the mail from Cape Town received here on February 25, bringing news from the colony to the 21st of the previous month, a report reached this country that Dr. Livingstone had met with an untimely end on his expedition up the Zambesi. As this created great uneasiness among all those interested in the welfare of that great philanthropist and his expedition, it will, no doubt, be a satisfaction to the public to learn that I have this morning received by the *Murray*, one of the Orient line of packets from Adelaide, a letter from my son, now resident in Cape Town, dated January 29, in which he says that news had been received by Her Majesty's ship *Rapid* that Dr. Livingstone was 'all well.'

"I am, Sir, your obedient servant,

"150, Leadenhall-street, March 31." "G. Thompson.

GARIBALDI.

The visit of the Italian patriot to this country is a compliment to British Surgery. It is understood that one of his main reasons for seeking our shores is that he may place himself again under the care of his old attendant, Professor Partridge, and of Mr. Fergusson. Garibaldi still suffers from great stiffness in the seat of his injury, and can only walk slowly and limpingly with the aid of a stick. The newspapers report that in a speech made to his fellow-passengers on the eve of his arrival at Southampton, he said "that he owed his life to England." We trust that he may still reap further benefit from British Medical science, and that he may leave this country in full possession of the health and vigour which he needs. He is accompanied by his Italian Medical attendant. His appearance is better known by portraits and photographs of all kinds than perhaps that of any man in Europe. The *Times*' correspondent, however, in describing him on his landing at Southampton, writes that the idea of his *physique* which many of his photographs give is incorrect:—

"In stature he is below the middle height, but his well-set frame and rather broad shoulders give him an appearance of great natural robustness and activity, from which even his lameness could not much detract. His features, when not in conversation with friends, have rather a sad aspect; but nothing can exceed the animation of their expression when speaking (especially in Italian), and there is a winning appearance of good-humour about his eyes which is not easy to be described, but which those who see it can never forget. For the rest, his portraits are like him in all but this expression,

and in the fact that the photographs convey the idea of his being an older and much taller man than he really is."

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE X.—FEBRUARY 23.

HAVING concluded the sketch of the anatomy of man, Professor Huxley passed in this lecture to a description of the structure of those animals which approach most nearly to him. These are by universal consent admitted to be the gorilla, the chimpanzee, the orang, and the gibbon. How far they resemble, and in what respects they differ from man, and which approaches nearest to him, will now be considered, the chimpanzee being taken first, because of its anatomy we have the fullest illustrations in the College Museum.

This animal, *Troglodites niger* of the zoologist, is an inhabitant of the West Coast of Africa, ranging from Sierra Leone to Congo. Trustworthy information as to its habits in its native state is scanty, but it appears to live in small families or troups, and to be essentially arboreal in its nature, only occasionally descending to the ground. When it does so, it sometimes for a short time assumes the erect posture, but its usual position in walking is semi-erect, the body inclined, the soles of the feet flat on the ground (the outer edge brought down first), and the hands bent, so that the knuckles form the point of support for the fore-limbs. It builds a kind of nest of branches and leaves, lives entirely on vegetable food, and is, on the whole, of a timid and gentle disposition, especially when young, though the adult males can use their powerful canine teeth as weapons of offence and defence. The intelligence of the young specimens which have lived in confinement in this country has often been remarked upon.

When full-grown, the chimpanzee probably never exceeds four feet four inches in height. The proportions of its body differ widely from those of man. When erect, the middle point of the vertical height is three or four inches above the symphysis pubis, indicating the relative shortness of the lower limbs. The upper limbs, on the other hand, are so much longer than those of man that the extremities of the fingers reach below the knees, and the extreme span measures about seventy inches, the height being only fifty. The forearm is nearly equal in length to the humerus; the tibia is longer in proportion to the thigh than in man; the thigh bone and humerus are of nearly the same length. In all these proportions it will be remembered that there was a slight variation between the higher and lower races of man, and that in the latter they deviated from the normal standard in the same direction, though in an infinitely smaller degree, as now shown to be characteristic of the chimpanzee. The hand and foot are nearly of the same length, the former being, if anything, somewhat longer. The palm and the sole are remarkably narrow. The tarsus, metatarsus, and digits are of nearly equal length, the middle segment being rather the shortest. The heel is much shorter than in man. The distal segment of the tarsus rotates freely on the proximal part, being much less solidly united than in man.

Among the external features may be noticed the ears, very large, but preserving all the essential parts of the human ear, except that the antihelix is rather less marked. The nose is flat, the nostrils look downwards, and the septum between them is narrow. The thumb is very short, reaching only to the base of the first phalanx of the index finger. Perhaps the most striking character is that the great toe is greatly devaricated from the others, and partakes of that thumb-like appearance which gave rise to the name of *Quadrumana* applied to the whole group of monkeys. The colour of the integument is a pale brown. The hair is black, abundant on the scalp, and, contrary to what obtains in man, more developed on the dorsal than the ventral surface of the body; on the arms and legs its disposition is similar to that of man, converging towards the elbow, and sweeping away from the knee-joint. There are distinct eyebrows, eyelashes, and whiskers; the beard and moustache are exceedingly scanty and of a pale colour. The penis is altogether external and pendulous, the scrotum placed behind its root, and the mammæ are pectoral.

The skeleton presents the following important characters:—The vertebral column is comparatively straight, for though it possesses all the curves observed in the human body, they are far less marked. The same holds good with the vertebro-sacral angle. The cervical vertebræ are seven in number. The dorsal and lumbar taken together are seventeen, as in man; but there is a thirteenth rib, so that they are reckoned as thirteen dorsal and four lumbar, instead of twelve dorsal and five lumbar. The spines of the cervical vertebræ, instead of diminishing in length in the middle of the series, are nearly equal, and except in the dentata are but slightly, or not at all, bifid. The last lumbar vertebra, as a general rule, unites with the sacrum and iliac bones in the adult animal; this character was met with as an anomaly in the human subject, more frequent in the Australian and African races than in Europeans. The sacrum differs greatly from that of man, in being narrower and more elongated from above downwards. The sacral and coccygeal vertebræ together are from ten to twelve in number, the upper five generally coalescing to form the sacrum. The coccygeal vertebræ continue the line of the curve of the sacrum as in man. Of the ribs seven are true, or articulate directly with the sternum, and six are false. The sternum much resembles that of man, being flat and broad. The thorax generally is longer from above downwards, and deeper from before backwards, than in man.

The skull presents in its external form some obvious and striking differences from the human skull, especially the small mass of the cranium compared with that of the face, the prominence of the supra-orbital ridges, and the great projection of the jaws. A longitudinal section shows, however, that these differences appear greater externally than within; and, as previously shown, there is among the lower races of men a tendency to approach them. The cranial capacity of the largest chimpanzee measured is $27\frac{1}{2}$ cubic inches, that of the smallest normal adult man being 55. The cerebral length to the floor of the skull (basi-cranial axis) is as 180 to 100. The occipital foramen is situated further back than in any human skull, the length in front to that behind the condyles being as 258 to 100. The plane of the occipital foramen has an upward inclination. The olfactory and the tentorial planes are still nearly horizontal. The squama occipitis is inclined upwards and backwards from the superior curved line, but this is placed higher on the occipital bone than in man. The great projection of the supra-ciliary ridge is connected with the large development of the frontal sinuses. The crista galli is small or absent. The ethmoid fossæ are not deeply sunk. The orbits are very large, their roofs pushed up into the skull considerably diminish the size of the cranial cavity in this region. The ethmoid and presphenoid unite together without being covered over by the frontal; in this character man and the chimpanzee agree, and differ from others of the anthropoid apes. The upper edge of the squamosal is straight, and unites with the frontal, so that the alisphenoid does not join the parietal; this is sometimes the case also in the human subject. There is no deep fossa on the inner surface of the petrosal for the lodgment of a portion of the cerebellum. The mastoid prominence is of very different form from that of man, and there is no trace of an ossified styloid process. The middle root of the zygoma is greatly developed. The jugal arch is so much developed in proportion to the cranium that the skull is much more phænozygous than any human skull. The sutures of the cranium disappear at a comparatively early period. The jaws are larger in proportion to the cranial cavity, and project more forward than in man, so that the chimpanzee is both macrognathous and prognathous. The cranio-facial angle is about 120°. The chin is entirely wanting to the lower jaw. The anterior nasal spine, which rises up from the pre-maxillary in man, is entirely absent. The shape of the palate differs from that of man; its sides are

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straight, being, if anything, wider behind. On the middle of its posterior border there is a spine projecting backwards. The sutures between the pre-maxillary and the maxillary bone does not become obliterated till the commencement of the second dentition. The nasal bones lose their distinctness very early, but as long as they remain separate are seen to be flat and broad, and rather contracted in the middle.

HUMAN HYBRIDITY.

If sciences are to be divided into the exact and inexact, we think we may fairly place the new one of Anthropology at the bottom of the list of the latter as the *ne plus ultra* of incertitude. We find that of Man collectively, in a zoological sense, we really know nothing, and, as far as we see, we do not think we are likely to get much beyond the simple negation of knowledge. One authority tells us emphatically that Man forms a sub-class, of which he is the sole order and species. Another that he is a genus consisting of several species. A third, that, like the Apes, he forms a section of the order Primates. One philosopher denies that any two races can be successfully intermingled—for instance, that the Anglo-Saxon "species" can be thoroughly and beneficially amalgamated with the French, the Irish, or the Spaniards, and thereupon prophesies the ruin of all mixed States, such as the Americans. Another finds in the crossing of the races of old Europe the cause of the downfall of the Roman empire; whilst the next asserts that the former are all wrong, and that it is only some intermixtures which are comparatively infertile. Meanwhile, the great work of peopling the world goes on, unmindful of the disagreements of *savans*. Demand and supply, reward for labour, and the struggle for existence, have been for ages working out the very problems on which learned societies are now disputing with no apparent chance of agreement. Of course, the old-fashioned ideas of the community of origin of the human race, the oneness of the species, the universal brotherhood of mankind, still may keep their hold on the uninitiated, supported as they are by the better instincts of our nature, and acquiring strength from their relation to ethics and religion. But such traditional ideas meet with little respect from modern philosophy. People may wish that the philosophers would give them something certain in place of the opinions they so ruthlessly destroy. Science, however, recognises no such necessity. We are by no means convinced that modern *savans* would be satisfied with the dull level of a conclusion. It is so much more pleasurable to be in a condition where you can think anything, but be sure of nothing. It gives so much scope for the imagination to discover that whatever be the truth it is impossible to find it out.

Dr. Paul Broca, Secretary of the *Société d'Anthropologie* of Paris, has lately published an essay on the "Phenomena of Hybridity in the *Genus Homo*," which has been very well translated into English by Mr. C. Carter Blake, and is now circulated under the auspices of the Anthropological Society of London. The subject is one of some political as well as scientific importance; and although the author of the essay can scarcely be supposed to have satisfied himself—much less to have satisfied his scientific readers—that he has arrived at any certain and well-grounded conclusion, he deserves the credit of having written with some research and acumen. It is evident that the writer of the book has a strong bias to the polygenist theory of the origin of mankind, but although we do not agree with him in his principal deductions and statements, we willingly allow his work to be an able monograph on a highly-interesting and curious subject, and one that will well repay perusal.

The following are the conclusions at which he arrives. The first only is supported by original facts, drawn from the returns of the conscription in the different provinces of France. M. Broca's observations show that the two races—the Celtic and Kimric—have perfectly amalgamated in those districts where they have originally intermixed in about equal proportions, and that the resulting population is physically quite equal to that descended from either of the parent stocks:—

"1. That certain intermixtures are perfectly engenesic (perfectly fertile).

"2. That other intermixtures are in their results notably inferior to those of engenesic hybridity.

"3. That mulattoes of the first degree, issued from the union of the Germanic (Anglo-Saxon) race with the African negroes appear inferior in fecundity and longevity to individuals of the pure races.

"4. That it is at least doubtful whether these mulattoes, in their alliances between themselves, are capable of indefinitely perpetuating their race, and that they are less prolific in their direct alliances than in their re-crossing with the parent stocks.

"5. That alliances between the Germanic races (Anglo-Saxon) with the Melanesian races (Australians and Tasmanians) are but little prolific.

"6. That the mulattoes sprung from such intercourse are too rare to have enabled us to obtain exact particulars as to their viability and fecundity.

"7. That several degrees of hybridity, which have been observed in the cross-breeds of animals of different species, seem also to occur in the various crossings of men of different races.

"8. That the lowest degree of human hybridity, in which the homœogenesis is so feeble as to render the fecundity of the first crossing uncertain, is exhibited in the most disparate crossings between one of the most elevated and the two lowest races of humanity."

We may dismiss the question of African and English hybridity, with the remark that M. Broca brings forward no new fact, all that he advances has been already urged *ad nauseam* by Nott and Gliddon, and other American writers. As it is long before most scientific men will believe that Spaniards and Englishmen are of different species, they will not allow much weight to the fact—if fact it be—that the negro race is but sparingly prolific with the English, but freely prolific with the Spaniard. With regard to the prolificacy of mulattoes between themselves, it is clear that unless they are completely separated from pure white and black populations the experiment cannot be made on a sufficiently large scale. The testimony quoted by M. Broca on this point is of too vague and unsatisfactory a character to carry conviction. In the case of the Australian savage and English, M. Broca appears to have entirely overlooked the fact, that from the aborigines of Australia not only are there but few mulattoes produced, but also very few pure black children. The fact is, the vitality of the race seems exhausted. Centuries of scanty food, privation, and hardship seem to have sapped the vigour of the stock, and it only required the introduction of the vices of civilisation to complete its destruction. The native population of the new world, like its indigenous fauna and much of its native flora, seems destined to disappear before that of the old. In the case of the Australian savages, it does not seem difficult to account for this. The struggle for existence they maintained before the first Europeans brought grain and cattle had been too much for the race. Physically and morally, they were reduced to the lowest condition of which humanity is capable. The arrival of the European was but the last link in the chain of causes which completed their destruction.

We have before us the Government Statistical Register of Victoria from the foundation of the colony. From it we abstract the following statements, which are certified by Mr. Thomas, the appointed Guardian of Aborigines:—In 1836 the number of aboriginal natives of the Melbourne or Port Philip tribes, including the Yarra and Western Port tribes, was 350. In 1851 it was 76. From April 1, 1839, to December 31, 1849, the number of deaths amongst the natives of these tribes was 158, whilst the number of births was only 20. We suppose that M. Broca would not deny that there is a greater chance of fertility amongst the coloured population themselves, than from occasional and illicit admixture with Europeans. M. Broca scouts the idea of infanticide of hybrid children being one cause of their rarity, although it has been asserted by

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Cunningham and other original observers. He, perhaps, will accept Mr. Thomas's evidence as to the way in which the full-blooded native children disappear. That gentleman appends the following note to the table from which the above figures are quoted:—"It will be apparent from this return, taken carefully from my journal and reports, that there has been no comparison of births in proportion to deaths. The Almighty only knows the cause. It would be as well to remark here that of these innocents (the twenty infants born) scarce any of them lived over the first or second months. My firm belief is, that they are made away with, as scarce ever a death occurred while I was with the encampment; but parents, with a few others, would ramble, and invariably return, after a week or two, childless." From these facts, which cannot be disputed, we maintain that any deductions made from the rarity of hybrids in Australia are utterly valueless. The Australian *gins* do not conceive by Europeans for the same reason that they do not conceive by their own husbands. It is also entirely improbable that mulatto children, the result of illicit intercourse, should escape the fate which assuredly awaits the full-blooded Australian infants.

FROM ABROAD—SEPARATION OF THE ARM DURING THE REDUCTION OF A DISLOCATION.

The hall of the Paris Society of Surgery was crowded the other evening in order to hear the narrative by M. Alphonse Guérin of a case, perhaps, unique in the annals of Surgery. A woman, aged 63, entered the St. Louis Hospital for a dislocation of the shoulder of three months' date, the arm being in a state of complete paralysis. The patient having been placed under chloroform, extension was made, through the medium of bands applied above the elbow and at the wrist, by four intelligent assistants. While traction was thus being accomplished gently, a noise was suddenly heard, the separated limb fell to the ground, and the opened artery freely spirted out its blood. This was compressed and tied; the projecting end of the bone was excised, and covered over by a lateral flap which had been left when the limb was torn away. On examination, the limb was found to have separated at the elbow-joint, and every tissue, muscle, bone, vessels, etc., was found from one to the other in a soft and friable condition. The muscles separated under the pressure of the finger just as would a soft coagulum of blood; and the bones were also excessively friable. Microscopical examination further exhibited complete disintegration of the various tissues. This condition of the parts sufficiently explained the occurrence, but it remained a matter of great surprise that such changes, comprising all the tissues of the limb, should have continued latent and unrevealed by any outward sign. Neither œdema or any trace of inflammation or suppuration was present; and prior to the accident nothing was present besides the ordinary signs of an old dislocation. The traction employed was but moderate, the assistants standing quite erect. M. Guérin attributes the production of the lesions to which alone the accident was due to the compression of the brachial plexus by the luxated head of the humerus, although M. Malgaigne does not admit that such compression takes place in sub-coracoid dislocation. M. Larrey considered that this case, at all events, was not without its analogies, for paralysis, and especially traumatic paralysis, sometimes tends to favour the occurrence of fracture through ramollissement of the osseous tissue. He had communicated to the Society three cases of spontaneous fracture of the femur occurring in subjects of paraplegia. M. Voillemier, while admitting the presence of lesions which account for the accident, could not attribute them to paralysis; for if this existed, how happened it that the head of the bone remained applied beneath the coracoid process, instead of rolling from one side to the other by its own weight when no longer maintained by the contraction of muscles? M. Verneuil did not consider that the bones of the limb had undergone a sufficient alteration to constitute the essential element of the accident. This should rather be sought for in the condition of the muscles; and the employment of chloroform may have contributed to their relaxation and defective resistance. The paralysis, however, sufficiently explains the changes observed in these organs, similar change being sometimes both rapid and extensive. In the course of six weeks the fibre may lose its properties, this implying the occurrence of a fatty transformation; so that when in a dislocation which has persisted for that period, and still more when it has continued for two or three months, the existence of paralysis is proved, the Surgeon should only make attempts at reduction of a very moderate character, and continued during a short period. This case of M. Guérin should serve us as a lesson; but the most extraordinary feature about it, in M. Verneuil's opinion, is the rupture of the skin—an occurrence of which no other example is on record. M. Guérin could only refer again to the microscopical examination of the bone to prove to M. Verneuil that its structure had undergone the most complete alteration, there being, in fact, ramollissement, friability, rarefaction, and interstitial hæmorrhage. As to paralysis after luxation, it is a very common occurrence, and is rather an additional indication for the reduction of the luxation than a motive for non-intervention. M. Broca, while admitting this to be a very serious case, hoped that it would not be allowed to intimidate Surgeons from attempting the reduction of old dislocations, which is good and excellent Surgery. He believed, contrary to the opinion of M. Guéria, that the lesions of the osseous tissue in the separated limb were dependent on disease of this tissue anterior to the luxation, some of the microscopical appearances being only referable to an older date. Investigations which he pursued at the Salpêtrière and at the Bicêtre demonstrated to him that these changes due to ramollissement of the bones in aged persons are of only slow progress. In this case the microscopical appearances, in conjunction with the age of the patient, indicate senile ramollissement, the phenomena of senility, as is sometimes the case, being somewhat precarious in this instance. This condition is nowise inconsistent with the occurrence of dislocation rather than fracture, as the ligaments also become thin and feeble, and the muscles are relaxed.

M. Guérin's patient died a few days after the accident, the autopsy furnishing no explanation of the cause of death. No statement is given as to whether the other bones of the skeleton manifested appearances of disease.

TRUE COMMERCIAL PRINCIPLES APPLIED TO HOSPITAL OFFICES.

(From a Correspondent.)

In consequence of the remarks of one of our contemporaries upon the unpaid services of Medical officers to charitable institutions, we understand, upon good authority, that it is in contemplation to endeavour to ascertain, by the aid of a commission appointed for the purpose, the commercial value of some of the unpaid Physician- and Surgeon-ships to our leading Hospitals. It is anticipated that, contrary to the opinion of our contemporary, many of the posts would fetch very high prices, and the committee of one leading institution think it probable that Physicians and Surgeons of even greater eminence than any of those now attached will come forward and offer large sums for the advantage of conferring gratuitous services upon the poor of the highly populous surrounding district and holding office in a leading institution. Our contemporary thinks that each Physician ought to be paid by the committee. The committee, on the other hand, consider that if the posts were fairly put up for competition, they would fetch large sums. It is suggested with some reason that if it was worth while for a distinguished Surgeon to spend £500 in a contested election with only the chance of success, many Surgeons of at least equal eminence would gladly contribute an annual donation towards the support of an unendowed Hospital for the privilege of attending the patients. The committee are sanguine of success, and are now anxiously looking forward to the resignation of the present staff, who, like our contemporary, are indignant at not being remunerated for their services. The committee feel confident of receiving from £1200 to £1500 a-year increase to their permanent income, and at the same time are convinced that they will obtain the services of gentlemen who will defer to them in every particular, both as regards the medi-

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cines ordered, the quantity and quality of the food and stimulants, and in the general management of the patients—matters which occasionally give rise to the greatest difference of opinion between the committee and existing unpaying and unpaid Medical officers. Should the unpaid staff shortly resign, as is confidently expected, upon the ground of not being paid for their services, it is the unanimous determination of the committee to put up the posts at once for competition, without waiting for the report of the commission of inquiry. It is said that all competitors must be Fellows of the Royal Society, Fellows of the Colleges of Physicians or Surgeons, and all Physicians must be M.D.s of the Universities of Oxford, Cambridge, London, Edinburgh, or Dublin. Each post will be put up at £200 a year, but it is confidently expected there will be a most animated competition, and that eventually the services of very highly distinguished men will be obtained, who will gladly pay £300 a year towards the funds of the charity.

Although many of our readers may be disposed to doubt if the post of Hospital Physician or Surgeon be a labour and an honour worth paying as much as £300 a year for, it is quite clear to all the world that these posts possess considerable commercial value, and that it would really answer the purpose of many to pay the committee and governors for the privilege of holding them.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF WOLVERHAMPTON.

(Continued from page 194.)

THE SOUTH STAFFORDSHIRE GENERAL HOSPITAL AND WOLVERHAMPTON DISPENSARY.

ADMINISTRATION.

The South Staffordshire Hospital was originally a Dispensary. It was transformed into an Hospital a little over fourteen years ago. The institution stands a short distance from the town, and is a fine and commanding edifice. The walls are of brick, and the frontage is well chosen; the house is surrounded by a very limited portion of ground.

Number of Patients Treated.

The number of patients admitted for treatment within the Hospital varies from 480 annually to 600, or even 649. Thus, in 1856, 572 patients were admitted; in 1857, 597; in 1858, 487; in 1859, 536; in 1860, 609; in 1861, 649; in 1862, 693; and in 1863, 559. In the out-patient department the numbers are extremely large. In 1856 they amounted to 3931; in 1857, to 4517; in 1858, to 4679; in 1859, to 5149; in 1860, to 6268; in 1861, to 7237; in 1862, to 7750; and in 1863, to 7316. The residence of each patient in Hospital averages six weeks, and the period of attendance of each out-patient is placed at the same average—six weeks.

Rules for Admission of Patients.

At the half-yearly general meeting of the Governors, held the 10th day of September, 1861, it was resolved:—

"That for every two guineas subscribed, and for every twenty-five guineas hereafter given in donation, the subscriber or donor shall have the privilege of recommending yearly one in-patient, or six out-patients at his option. That for every one guinea subscription the subscriber shall have the privilege of recommending yearly three out-patients, and for every subscription of half-a-guinea the subscriber shall have the privilege of recommending yearly one out-patient." A subscription of half-a-guinea gives admission to a child either as an in- or an out-patient.

"That subscribers shall be allowed the privilege of supernumerary tickets of recommendation on paying at the time to the Institution £2 2s. for an in-patient ticket, and 7s. for an out-patient ticket."

I may add that the officials of the Hospital are extremely careful not to admit to the benefits of the charity any persons who are not by circumstances fit and proper objects of the charity. The rule on this subject is very strict. It runs thus:—"No patients shall be admitted but such as are themselves unable to pay for advice and medicine, and are destitute of friends to make such provision for them. Gentlemen's servants, in place, shall be considered under the above rule as inadmissible as in-patients. In cases where servants, in place, may labour under any complaint, or the effects of any accident which may require constant Medical or Surgical attendance, and his or her master shall be desirous of sending such servant as in-patient to the Hospital, they be admitted on the Receiving Physician or Surgeon stating it to be a proper case, on the master's payment of 1s. 6d. per day for the board of males, and 1s. per day for females." Amongst the subscribers are several of the working classes, whose subscriptions average not less than £100 a-year.

Originally, by rule of the Hospital, children under 6 years of age were not admitted as in-patients; but in the year 1862 a movement was made to abolish this rule, and to establish a children's ward. In the course of 1863 this project was carried out; a new and beautiful ward was built, and furnished, and the children's department is now one of the features of the Institution.

No woman advanced in pregnancy; no persons disordered in their senses; no person suspected to have the small-pox, or other infectious distemper; no person having habitual ulcers, or cancers not admitting of operation, epileptic fits of long standing, or dropsies in their last stages, in a dying condition, or judged incurable—are admitted as in-patients, or, if inadvertently admitted, are suffered to remain.

No male patients are admitted more than once, and no female patients more than twice, for venereal complaints; and in all cases of this class, the complaint is stated on the face of the recommendation, and the subscriber recommending has to certify that the person has been an inhabitant of the county for the preceding six months, or a parishioner legally settled therein.

Patients are admitted, through subscribers, by ticket, as a general rule; but a large number being urgent cases are admitted at once without attention to this routine, as the cases of accident in Wolverhampton that demand instant admission are very large. Thus, in 1863, while 183 Surgical cases were received into the house by the proper form, no fewer than 240 were admitted for accidents, as cases requiring immediate attention; while among the out-patients for 1862, 3425 came under treatment with a ticket, and 3550 were taken on at once. An immense number of the accidents received are from burns. At one of my visits I saw as many as five bodies in the dead-house, the deaths having arisen from that cause alone, and not from one fire only, but from three different fires.

A register of patients is kept; its parts are arranged under the following heads:—Date of Admission; Name and Residence; Age; Trade or Occupation; Single or Married; Nature of Disease; Duration of Illness; Under whose Treatment; Recommended by ———; Result; Date of Discharge.

Income of Hospital and Cost of Patients.

The Hospital building is the freehold property of the charity. It is vested in the hands of four trustees. The income varies from two thousand five hundred to three and even four thousand a-year, and is derived from investments, annual subscriptions, and donations, the subscriptions being the largest item. There is usually a deficient amount on the current account of each year, this deficiency reaching in 1861 no less than eight hundred and thirty-four pounds. The average cost of each in-patient may be taken at £3 13s. 6d., and of each out-patient at 3s. 4d. This sum is considerably larger than in the Stafford Hospital, being full 15s. more for each in-patient and 4d. more for each out-patient. The daily average of patients in the house varies from fifty-eight to sixty-three.

Medical Staff.

The Medical staff of the Wolverhampton Hospital consists of a Consulting Physician, Dr. John Topham, M.D.; two Physicians, Dr. William Millington, M.D., and Dr. Henry Bridgestock; three Surgeons, F. A. Nesbit, Esq., W. E. Thomas, Esq., and Vincent Jackson, Esq.; one House-Surgeon, J. O. B. Kough, Esq.; and an Assistant-House-Surgeon, Dr. D. Brown.

SANITARY ARRANGEMENTS.

The Hospital may be considered to consist of two stories for the reception of patients. After passing through the entrance hall, you enter a long, wide, and open corridor, which, in fact, extends to the upper part of the building, and into which the wards of both stories open. This corridor admits of very free ventilation, and is warmed from the lower story by means of hot-water pipes which run under a handsome perforated iron grating.

The wards are twelve in number. There are now no special fever wards: formerly there were two—one for men and one for women—and these did not communicate with the house, but were entered from without. These are now joined to the other wards by doors, and one is turned into an acci-

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dent ward, principally used for burns, and the other into a ward for children. The wards are 16 feet high, but contain windows on one side only. The walls are coloured light blue in all cases—a colour which Mr. Kough thinks answers better than any other. The colour is pleasant to the eye, cheap, clean, and easily kept clean. I have seen various other colours used in the Hospitals I have visited, but none have appeared to me to be so good, practically, as this.

The dimensions of each ward are given in the following table, which was drawn up for this report by Mr. Kough after special measurement:—

Receiving-room, 21 feet by 18.

Wards.	What used for.	Dimensions.	Number of Patients contained.
1	Accident Ward	51 × 18 feet	14
2	Accident Ward	26·5 × 20·6 ,,	6
3	Medical Patients	61 × 21 ,,	18
4	Surgical ,,	25 × 18 ,,	6
5	Medical ,,	30 × 20 ,,	10
6	,, ,,	47 × 18 ,,	14
7	Surgical ,,	42 × 18 ,,	10
8	,, ,,	27 × 18 ,,	6
9	,, ,,	18 × 12 ,,	3
10	,, ,,	20 × 19 ,,	6
11	Children's Ward	26·5 × 20·6 ,,	10
12	Private Ward	18 × 8 ,,	1

Each ward is sixteen feet high.

On the whole, calculating the space occupied by the number of patients altogether admitted, we may take the space allowed to each patient at 800 cubic feet.

The *Water-closets and Baths* are moderately well arranged. There are seven water-closets to the twelve wards. They are placed so as to join the wards, but are well ventilated. The baths, five in number, also join the wards. The baths are constructed of enamelled iron. Three of them are very deep and inconvenient—too deep for practical purposes. There is neither a vapour bath nor a hot-air bath in the establishment.

The *Warming and Ventilation* are of the simplest kind. Excepting the corridors, where hot-water pipes are used, the open fire grate is made to answer every purpose. In the large wards there are two open fire grates; in the smaller wards one. It seemed to me that these grates were placed too far back, and that much of the heat that should radiate from them was lost. At the same time, the wards were comfortably warm. For the purposes of ventilation, Arnott's valves were originally introduced into the chimneys. They did not act. The ventilation was imperfect from them, and there was a downward current, carrying with it smoke and dust. The result has been that here, as in many other places, the Arnott valve is rendered useless, and in some instances it is even pasted over. The reason of this is simple, and admits of immediate remedy. The opening or throat of the chimney flue is so wide in comparison with the chimney-pot or exit tube above, that more air enters at the bottom than can escape at the top. This leads to a great sacrifice of heat, owing to the rapidity of the draught and the transmission of cold air up the chimney, over the fire, and prevents also the valve from taking in air at the upper part of the room. I point this out because it is most important to remember, both in private houses and in Hospitals, that the Arnott valve will not act unless the opening near the fire be constructed so as to carry nothing but the smoke, that is to say, no overplus of air. Then the valve acts always surely and more efficiently than any other similar method. In the wards of the Infirmary, just above the skirting-boards, are four open bricks which communicate with the open air, but which are hidden from general observation by the beds. There are also openings from near the ceilings into the open air, and a series of shafts which extend from the basement, and which have openings into the wards at the upper part, protected by Arnott's valves. Altogether, the ventilation is effective and the wards are extremely sweet. Even in the wards devoted to the treatment of burns, I found the air free from any taint late at night, and at a time when, from the coldness of the day, window ventilation had been almost impossible.

The water is supplied from the Wolverhampton Waterworks, and the supply, which extends to all parts of the house, is constant and good. One cistern at the upper part furnishes the whole. There is a pump, which is not much used; and a soft water cistern, which yields abundant water for washing and similar purposes.

The cleansing of the floors is mainly by the dry process, but not altogether so. *The floors* are all of oak, except in three wards, where deal is used. The oaken floors are scoured once in six weeks, and are then polished with Calais sand and bees'-wax. The deal floors are scoured. In this Institution, therefore, two methods of cleaning are seen, and I learn from Mr. Kough that the dry process is infinitely superior: it is cleaner, is more under command, is more comfortable to the patients, and saves great labour to the under nurses. The floors polish easily: an hour will polish a long floor after scouring.

The decorations of the Hospital are few, but good. In the ordinary wards the walls are painted shoulder high of stone colour. Above they are of light blue. The children's ward is really very tastefully decorated. The ceiling is marked out in ornamental scrolls, which are set in water colours, and are most effective. The design is carried out by the stencilling process, is rapidly done, and is almost as cheap as ordinary washing. Indeed, the pattern being supplied, the most common washer can carry out any system of decoration. This is an important point to remember, for many readers who have thought well of the observations made in these papers on the decorations of Hospital wards have written to me to say that objection is raised on the ground of expense. The expense is no obstacle, really. It extends only to the purchase of a design, cut in brown paper, and to very slight extra labour in stencilling after the ground paint has been laid on. The extra cost of colour can scarcely be calculated as an item. The only thing wanted is a good series of designs for Hospital decorations, and these, I am sure, in the present day, have only to be asked for to be freely supplied.

The *bedsteads* are of iron: the Surgical beds are without curtains; the Medical have curtains of blue dimity at their head, which curtains can be drawn to the foot. The *bedding* consists of two mattresses—one of straw and one of hair. The straw is changed as often as necessary, and the hair is washed and remade up. Macintosh sheeting is used on every bed. It is placed between the sheet and the bed, and is found exceedingly useful as a preservative.

The Classification of Patients.

The Medical and Surgical cases are divided in separate wards, male and female, except in the case of the children. There are three Medical and nine Surgical wards. The patients of the Physicians and Surgeons respectively are intermixed. There are no wards for special cases except two for accidents.

The Nursing System.

There are three upper nurses—one for the women, one for the men, and one for the accident wards; to these are added seven under nurses, who sit up alternately. The surgery porter bathes the men and assists in putting the patients suffering from accidents to bed. The staff of attendants may thus be taken as one nurse for seven beds.

Diet of the Hospital.

A rule prevails in the Wolverhampton Infirmary, in reference to *diet*, which is not general in the provinces. The patients are obliged to buy their own tea, sugar, and butter. Exceptions, however, are made in cases of extreme poverty. No distinct tables of diet are kept, although nominally there are three forms—viz., full diet, ordinary diet, and low diet. The Medical officers are, in fact, left free to prescribe in detail the various forms of diet. They are supplied with the following form, which is filled up very easily, and answers well. It is so simple and common sense that I give it entire:—

Ward.	No. of Patients.	Diets.			Extras.										
		Full.	Ordinary.	Low.	Mutton.	Pints of Beef-tea.	Fish.	Poultry.	Pints of Milk.	Eggs.	Oz. of Arrowroot.	Half-pints of Porter.	Half-pints of Ale.	Oz. of Spirit.	Oz. of Wine.	Pints of Tea or Coffee.	Light Pudding.

Meat required for ... Full Diets ... lbs.
Ditto ditto ... Mutton Diets ... lbs.
Ditto ditto ... Beef-tea ... lbs.

DIET DAY

As a general rule, the next table represents what may be

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called the scales of diet, but they are subjected to considerable modification, and, to a large extent, the system of weighing out the food to *each* patient is discarded.

Diet Table.

Meals.	Full.	Ordinary.	Low and Extra.
Breakfast ..	Bread and butter; pint of milk.	The same as full diet, except that on Tuesday, Thursday, and Saturday a pint of soup and rice-pudding replace the solid animal food.	Special, consisting of beef-tea, arrowroot, etc., according to the wish of the Physician or Surgeon. Extras are ordered in the same way.
Dinner	Boiled beef, or boiled or roasted mutton, 4 ozs.; vegetables in season without stint; beer, ½ pint.		
Tea	Same as breakfast, or tea for milk.		
Supper	Broth or beef-tea, 1 pint; bread.		

The bread is baked at home, and is allowed at all meals, 14 ozs. being given out for the day to each patient.

Use of Alcoholics.

Alcohol is rather freely given in the Wolverhampton Hospital. The average amount of wine is about one oz. per patient, and of brandy ½ oz. An allowance of ale and porter is also to be reckoned, to the extent on an average, of half-a-pint to a patient per day.

PRACTICE OF THE HOSPITAL.

The Medical cases consist chiefly of consumption, rheumatism, and all forms of chest and heart disease: chorea is very prevalent, and is almost universally connected with heart disease. Gout is a malady of constant occurrence. Grinders' phthisis is common, also lead colic and paralysis. Diabetes is rare, not presenting more than three cases a-year. Uterine diseases are frequent, and in the out-patient department tape-worm is a prevailing disorder. Syphilis, in all forms, is met with daily; but the primary variety is least common amongst adults—indeed, it is rare in them. Horrible as is the statement, it is true, nevertheless, that in young children—girls—primary syphilis is constantly brought under the eye of the Surgeon. It springs up under the influence of what may truly be called a bestial superstition, to the effect that if a man having syphilis cohabits with a young child, he is sure to be cured of the disorder. It is the fact, that one child has recently died in the Hospital from primary syphilis and ulceration of the os uteri. Infantile syphilis is necessarily prevalent, and the number of miscarriages amongst women from syphilis is alarming. Amongst the classes who yield this disease, indeed, marriage is held as of no moment. They live for the day and the hour.

Amongst the purely Surgical cases, malignant diseases present probably the largest number. Stone is also very common; it yields at least twelve cases a-year: the uric acid calculus is the usual type. The accidents constitute the important features of operative practice. Burns occur at the rate of three a-week during the months from October to May; the burns are about equally divided among children and adults, and the sexes also are equally divided. At least six cases a-week come to the Hospital for the Surgeons to extract from the eye fragments of steel. The lancet is used for extraction, and oil is afterwards applied.

Simple accidents are rare. Usually, owing to the circumstances under which the accidents occur, the mischiefs are compound, and entire smashes of the body are by no means rare. To give an idea of the Surgical practice of this Hospital, I may say that last Saturday, when I was present, there were, in addition to five terrible cases of burn, the following operative cases in the Hospital:—An excision of the elbow-joint, following a railway smash, two amputations of the thigh, one amputation of the fore-arm, two amputations of the lower third of the leg, one Syme's amputation at the ankle, and one amputation at the shoulder-joint; to say nothing of a large number of minor cases of operations.

Operations.

Statistics of the operations performed in this Hospital have not been systematically kept—a fact which is greatly to be lamented, because much valuable information is thereby lost to science. Mr. Kough has, however, collected records of every case of operation, with the results, from the beginning of the year 1862, from which it appears that seventy-four capital operations and fifty-seven minor operations have been performed. These represent a fair average for several years past.

Mortality.

The *general rate of the mortality* of the Wolverhampton Hospital in the year 1861 was 44·74 per cent. This is 8 per cent. above Stafford and Norwich, but is below most of the other Hospitals of the kingdom.

The *Surgical mortality* is somewhat high as compared with other provincial Hospitals, such as Norwich. I refer, however, only to mortality after operations, because I have no data bearing on the mortality from the whole class of Surgical cases. The mortality after all operations has been at the rate of 1 in 10, or 10 per cent. Excluding from these the seventy-four capital operations, and taking the mortality of these alone, we find it to be 1 in 5·69, or 17·56 per cent. In order to give a clear idea of the Surgical practice of the Wolverhampton Hospital, I subjoin a table of the seventy-four capital operations to which attention has been drawn, with the results:—

Sex.	Age.	Nature of Operation.	Results. Deaths.	Recoveries.
M	66	Amputation of arm for smash	Died, 6 days after operation.	
M	27	,, of shoulder-joint	Died, 7 weeks after operation.	
F	77	,, of fingers after smash	..	Recovered.
M	33	,, of thigh after compound fracture	..	,,
M	13	,, of upper arm	..	,,
M	25	,, of leg, middle third	..	,,
M	50	,, of hand	..	,,
M	9	,, of thigh for disease of knee	..	,,
M	49	,, of toes	..	,,
M	43	,, of thigh	Died.	
M	21	,, of hand at wrist	..	Recovered.
M	34	,, of thigh	..	,,
F	30	,, of part of hand	..	,,
M	27	,, of part of penis	..	,,
M	23	,, of hand	..	,,
M	27	,, of left leg	..	,,
M	40	,, of penis	..	,,
M	..	,, of thigh for disease of knee	..	,,
M	..	,, of thigh for necrosis	..	,,
M	53	,, of thigh for malignant disease of knee	Died, 7 days after operation; cancerous deposit in lungs.	
M	40	,, of part of hand	..	Recovered.
M	..	,, of lower third of thigh	..	,,
M	..	,, of right upper arm, middle third	..	,,
M	18	,, of middle third of thigh	..	,,
M	23	,, of leg, lower third	..	,,
M	..	,, of thumb	..	,,
M	..	,, of leg, lower third	Died, 6 days after operation.	
F	..	,, of thigh for disease of knee	Died, 10 days after operation.	
M	..	,, of middle third, humerus	..	Recovered.
M	..	,, of shoulder-joint for smashed arm	..	,,
F	..	,, of part of hand	..	,,
F	7	,, of thigh, middle third, for smash	..	,,
M	14	,, at wrist-joint for smash	..	,,
M	..	,, at ankle (Syme's) for smash	..	,,
M	..	,, at wrist for smash	..	,,
M	..	,, of thigh for disease of knee	..	,,
M	..	,, of leg, middle third, for smashed foot	..	,,
M	..	,, of part of hand	..	,,
M	31	,, of part of hand	..	,,
M	20	,, of both legs for complete smash	Died.	
M	33	,, of part of hand	..	Recovered.
M	38	,, of right arm after smash	Died, 40 hours after operation.	
M	42	,, of thigh after smash	Died, 20 hours after operation.	
M	16	,, of lower third of arm after smash	..	Recovered
M	40	,, above elbow	..	,,
F	34	Amputation of breast	..	Recovered.
F	48	,, of breast (left)	..	,,
F	44	,, of breast (both)	..	,,
F	..	,, of breast (left)	..	,,
M	32	Removal for necrosis of head of femur	..	Recovered.
M	38	Resection of ankle	..	,,
M	16	Cystic disease of lower jaw	..	,,
M	..	Removal of portion of necrosed pelvis	..	,,
M	12	Excision of head of femur	Died.	
M	..	Anchylosis of elbow, broken up under chloroform	..	Recovering.
M	..	Resection of right elbow	..	Recovered.
M	40	Removal of tarsal bones	..	,,
M	19	Tracheotomy	..	,,
M	28	Trephining after fracture of parietal	Died.	
M	29	Radical cure for hydrocele	..	Recovered.
M	5	,, ,, ,,	..	,,
M	..	,, ,, ,,	..	,,

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Sex.	Age.	Nature of Operation.	Results. Deaths.	Recoveries.
M	16	Lithotomy	..	Recovered.
M	10	,,	..	,,
M	2½	,,	..	,,
M	4	,, (calculus 26 grains)	..	,,
M	13	,, ,, 110 ,,	..	,,
M	8	,, ,, 46 ,,	..	,,
M	61	,, ,, 1½ ounce	Died, from hæmorrhage.	
M	10	,, ,, 3½ drachms	..	Recovered.
M	10	,, ,, 3 ,,	..	,,
M	38	Puncture of bladder through rectum for retention	Died.	
M	47	Extirpation of the right eye	..	Recovered.
M	29	Removal of hæmatocele of thyroid	..	,,

Chloroform.

Chloroform is usually administered by placing it on lint: the lint is held to the face with a handkerchief thrown over it. The narcotic is measured out in quantities of a drachm. The administration is entrusted exclusively to the House-Surgeon, who never leaves the patient. For a time Snow's inhaler was used, but it is now thrown aside as cumbersome. No death has occurred from chloroform in the Infirmary. From the period of the introduction of chloroform the administrations have not been fewer than 4000.

Points of Practice.

But few new points of practice are being carried out at the Wolverhampton Infirmary, but there are one or two subjects to which I may direct attention. *In the treatment of burns* the best practice is found to consist in placing the patient, in the first instance, in a tepid bath; this invariably soothes and affords great relief. Then oil is laid on all the burnt parts, cotton wool is applied, opium is administered freely as an internal remedy, and, at the same time, the patient is supported with good food.

Acupressure is being used, especially by Mr. Thomas, in amputations. The plan succeeds well in arresting the flow of blood, but union by the first intention has not been secured by it, and the process is found to take up considerably more time than the ligature. However, its value is still *sub judice*.

In the treatment of a case of poisoning by the inhalation of the fumes of nitric acid, Dr. Millington some time ago employed blood-letting with great advantage. The patient at the time when Dr. Millington first saw him seemed to be dying from the embarrassment of the breathing and the oppression of the heart. Twelve ounces of blood were drawn from the arm with instant relief. After a few hours the symptoms returned, and once more venesection removed the anxiety. Again, and once again, there was relapse, and again, and once again, the lancet proved immediately effectual. Without any other remedy the man made a good recovery; and Dr. Millington, in describing the case to me, said that nothing could be more remarkable than the immediate relief that followed the withdrawal of the blood. The patient, opposed to venesection, became, after the first abstraction, so easy that he would have had it carried further than was necessary. When we recall the two fatal cases from inhalation of nitric acid fumes that occurred in Edinburgh last year, we cannot but regret that the same effectual line of treatment was not there pursued.

I have only to refer to one other very simple, but useful and economical practice. The Surgeons of the Wolverhampton Infirmary use a prepared tissue-paper instead of oiled silk or gutta percha. The paper is brushed over with boiled oil, to which a little gold size is added; then it is put away to dry, and after a few days is dusted over with magnesia or French chalk, when it is ready for use. A specimen of this paper lies before me, and it seems equal in every way to oiled silk. Of course, it is less durable—indeed, it requires to be renewed each day; but it can be made in Hospital, and it is always new and clean for application.

Library and Museum.

There is a *Library* at the Infirmary, but it is very small, containing only a few hundred volumes of books published during the last twelve years.

There is no *Museum*, but about a hundred calculi have been retained. These await analysis and classification.

PROVINCIAL CORRESPONDENCE.

GLASGOW.

THE CONVERSAZIONE AT THE FACULTY HALL, GLASGOW.

By One Who was There.

There is no phrase which goes more kindly to all hearts than "Auld Lang Syne." We delight to live over again the days of our youth, and to talk of our early companions and playfellows. Where are they? What has become of them? Are they rich and making a figure in the world, or doomed to drag the load of poverty, and battle for a bare existence? How have our expectations of any of them been realised, and where is the lucky fellow who has made his mark? These are questions we all delight in. We cannot forget our early friends though we would, and somehow seem to feel that our school-fellows and college companions know and understand us better than any one else:—

> "Ah, days! that come but once a life,
> Yet with all blessed memories rife,
> Ye quickly pass, yet never die,
> But deep within our being lie:
> A heritage through all our years,
> Of calmer smiles and mellower tears."

He would be a poor fool who could affect airs beside an old fellow of the same form, and who, meeting with one "fallen on evil days and evil tongues," *sans* coat, or hat, or creature comforts, could coldly forget the early bond of brotherhood. I know nothing finer of this sort than the gentle Cowper's protest in favour of Warren Hastings. Cowper and Hastings had been together at Westminster School, afterwards to be widely and distinctly separated, the one becoming a great man, the governor of a mighty empire; the other to shrink into retirement, and become the recluse of Olney. But Will. never forgot Warren, and when the latter was impeached, and battered and barked at as though he were a badger, forth there came from the Solitary at Olney six lines, which are as immortal as anything in our literature, and which must have been "grateful as oil poured forth" on the galled spirit of his distinguished school-fellow—

> "Hastings! I knew thee young, and of a mind,
> While young, humane, conversible, and kind;
> Nor can I well believe thee, gentle then,
> Now grown a villain and the worst of men,—
> But rather some suspect, who have oppressed
> And worried thee, as not themselves the best."

This was a pure tribute to early friendship, and, I think, "beautiful exceedingly."

In a mood of this sort, dreaming of other days, I went on Friday evening, the 11th current, to the *conversazione* held in the large hall of the Faculty of Physicians and Surgeons, Glasgow, given by the President and Fellows of that ancient corporation. Invitations had been very general; men from the hills were expected—sturdy, intelligent fellows, with the tear and wear of twenty years of professional life on their faces; while there would be seen mingling with them in friendly discussion on subjects common to both the more polite and elegant *savants* of the valleys below. There was to be a Medical re-union, a social gathering of old chums and acquaintances. Old half-forgetten faces would once more become familiar, and voices *sugh* through our ears the music of lang syne. Moreover, Dr. William Weir, a man venerable with age, honourable for his acquirements, and loveable for the excellence of his heart, was going to read a paper on the early history of the Faculty and Medical Profession of Glasgow, endeavour to unroll the past, and raise, as it were, from the dead some all-but-forgotten names,—to linger over them with respect and reverence! This of itself promised no common treat, for to me clouds and darkness rested upon the predecessors of such men as Cleghorn, McCorkindale, Jaffray, Allan and John Burns, McNish, Moses Buchanan, Lawrie, and other honoured names, whose memory floats like incense over the bleak road of professional life.

The Faculty Hall, a magnificent mansion in the west end of the city, was crowded when I entered. My name was roared out by an official in a voice of thunder, and I had the honour of shaking hands with the President. Dr. Ritchie had too many hands to shake to say much to me; but he was evidently at home in receiving his guests, and his conduct throughout the evening was marked by high feeling and great suavity of manner. He is a white-haired venerable man, with

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a broad, hazy, Chalmers-looking face; and his honours hung gracefully around him. In a minute more I was in the heart of the saloon, sipping tea with some hundred Doctors Medicinæ surging around. The place was brilliantly lighted, and well-spread tables groaned under the good things of the season. There they were, old fellow-students who had not met for many years, laughing and talking about the days of yore, and of distant friends, and of the "chimes" which they had heard together "at midnight." It was most agreeable to witness the hearty shake, and slap, and laugh of friendly remembrance which was passing everywhere around. That pat on the shoulder; when, on turning, one was sure to recognise, in a well-known face, your old crony and still true friend. There is a thoughtful man from the "bonny banks of Ayr," with his hair closely cropped: he has had fever, and now he is telling us "visions of the Andersonian float before me to-night." Yonder is Andrew Anderson; and, look you, there goes Easton! How fresh and young! What did you think of that expectorant he lately administered to Gardner? It was capital, and ought to have had a place in the new Pharmacopœia.

Who the deuce is this, with "good fat capon lined," looking as though he perfectly understood the science of life? He has just been lecturing on that subject; and began it, I am told, by eating pickled oysters. I was to be present at the feast; but a confounded midwifery case came in the way, and I lost my share of the Pandors—by the way, I think they were not Pandors, after all, but Stranraers; mind you, there is something in that! Allow me to introduce you to J. G. Wilson, who has succeeded our old and valued friend, Dr. Patterson, in the Chair of Obstetrics at Anderson's. Wilson is a rising man; and what is singular, no one grudges him his success. By the way, have you seen *that* French forceps he is showing upstairs, and which G. H. B. declares would require to be yoked so that a pony might pull them? But George, you know, "loves to draw it strong," and we remember Balaklava. *Comprenez?* There is Perry and George Buchanan, clever fellows both; the latter I believe to be one of the best operators in the West of Scotland. "To be, or not to be?—that is the question." Here, I declare, is Whitelaw cultivating a beard, and grim as John Knox himself. And so with laughing, joking, and eating, the time arrived for us to congregate in the large hall, and listen to Dr. Weir's history of the Profession in Glasgow. The Doctor was introduced by the President in a few words, and took occasion to say what pleasure it gave them all to see so many gentlemen present, especially from the country. Though they could not favour them with a display of beauty, nor entertain them with music, or any of the accompaniments of a *conversazione*, he felt satisfied, on the simple ground of Professional union, they would be benefited by thus meeting together.

In expressing these feelings he would not like to intrude on Dr. Weir's particular subject, but he had a man of great fame to speak about—one Dr. Peter Low—to whom, indeed, they owed their present meeting together, and whose portrait they saw at the other end of the room—a face bearing on it the stamp of wit, of humour, and of great force of character and benevolence that characterised the original. That gentleman nearly 300 years since, had been a Physician in Glasgow, of great social influence, employing it constantly for benevolent purposes, and one of his great objects being to raise the status of the general Practitioner. The President could not resume his seat without referring to another who was still in the flesh, and whom he would not hesitate to call Dr. Peter Low *secundus*; he referred to their estimable friend, Dr. James Watson, who had also done much for the Faculty, and who had sought at once to lift the general Practitioner in Professional status, and extend his usefulness. The President concluded by introducing Doctor Weir, who, in a clear silvery voice, read a paper on the origin and early history of the Faculty, which, he said, had existed for nearly 300 years, giving full-length portraits of Dr. Peter Low and Dr. Robert Hamilton, its early founders.

Dr. Weir's paper was characterised by strong good sense and pawky humour, and keenly enjoyed. We trust he will print it, and so let us live the hour over again. Dr. Allan Thomson, in moving a vote of thanks to Dr. Weir, took occasion to compliment him on the manner in which he had arranged his facts, and the interest he had thrown around the subject; and taking a key-note from the paper just read, which had detailed the early system that our forefathers had pursued of apprenticeship, he contrasted practical and theoretical teaching, observing that they must be engrafted, and, referring especially to his friend Mr. Syme's pamphlet on that subject, concluded an able and energetic speech by expressing a hope that the invidious distinctions between Surgery and Medicine would soon cease, for he who was qualified to practise either was assuredly equal to both. Dr. Thomson's speech, to our mind, was equal to the man and the occasion that called it forth, and was received with rounds of applause.

Dr. Weir having replied, Dr. Thomson, from Kilmarnock, neatly and appropriately, in a few words, proposed a vote of thanks to the Chairman, which was given with three times three, when the proceedings terminated. But many of the guests continued after this to wander through the apartments, to sip tea, and enjoy other good things. Mr. W. B. Hilliard had in one of the rooms a collection of Surgical instruments, well worthy a special inspection. Messrs. Murdoch Brothers had in another room many beautiful preparations of rare and new medicines; while a crowd was always to be found in another enjoying the wonders of the microscope. Thus closed the first great gathering of Medicals in the west of Scotland, which, we venture to say, generated much kindly feeling, will be remembered as a night of rational enjoyment, and looked back upon, years after this, with pleasure. May we soon have another such! J. T. B.

GENERAL CORRESPONDENCE.

HEALTH OF HOSPITALS.

LETTER FROM DR. J. S. BRISTOWE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Dr. Farr has, in your journal, brought an accusation of general unhealthiness against the Medical charities of this country. I have invited him in the name of the Profession to which he belongs to lay before that profession the facts on which this very heavy accusation is based. I regret that Dr. Farr has failed to respond to my invitation; and has thus placed himself in the position of a man who has made an accusation which he cannot substantiate, yet will not retract.

I am, &c, J. S. BRISTOWE.

2, Queen-square, Westminster, April 5.

MORTALITY AFTER LITHOTOMY IN LONDON AND NORWICH.

LETTER FROM MR. HENRY THOMPSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—Dr. Richardson has at last admitted that the average mortality of London Hospital lithotomy is *not* "one death in two cases, or even one in 1·88." Had he done so in reply to my first letter (January 16), this long discussion might have been spared.

But, if he did not mean that, and nothing else than that, why did he write, when speaking of the 910 cases of lithotomy at Norwich: "If the same number of operations had for instance, been performed at Metropolitan Hospitals, *the deaths would, on the modern average*, have been 472 instead of 118?".

This is as distinct statement as could have been made, that the *average rate* of London mortality is one death in less than two cases; a statement which he now, after close pressure, disowns.

Dr. Richardson thinks fit to announce that he shall leave any one who differs from him in this matter "to his anger, his blindness, his intolerance, his pride." I have never yet in any discussion felt it right or needful to condescend to personalities, and I distinctly refuse to follow Dr. Richardson in this, the larger, portion of his remarks.

I am, &c. HENRY THOMPSON.

Wimpole-street, April 4.

A NEW HOSPITAL AT WINCHESTER NOT WANTED.

LETTER FROM MR. CHARLES MAYO.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having noticed in four different numbers of the *Medical Times and Gazette*, from February 20 to March 12, four several letters, relating to our county Hospital as it now stands and a proposed new one, I am induced to offer a few explanatory observations. I will not encroach upon your space by considering whether the "Epicuri de Grege Porcus"

is right in his estimate of the architect, which he seems to have formed from inspection of the plans, or whether the "F.R.C.S.," who seems to found his reply upon general report, is to have greater credit for his representations, because I propose to show from the report of your third correspondent, our present House-Surgeon, that it is by no means clear that a new Hospital is wanted. He premises that ours is the oldest provincial Hospital in England, founded in 1736. Now, Addenbrooke's, in Cambridge, dates 1719, and Bristol 1735. This is not very important, but he reasons upon its consequent decrepitude without knowing that in its infancy a much smaller building sufficed for many (sixteen or seventeen) years. The centre of the present building was (and is) a substantial mansion, fronting east and west, to which two wings, extending north and south, were added, with three floors in each, forming six commodious wards; so that all that portion occupied by the patients was purposely built for them, with single long wards facing east and west, in accordance, as I understand, with Miss Nightingale's more recent plans. With regard to the infirmities or decrepitude of the building, I see that the walls are firm and upright, but the floors here and there somewhat loosened, and the window frames require to be renovated or painted; such repairs seeming to be purposely neglected for the last two or three years, that the expense of effecting them may make the case stronger for the necessity of a new Hospital.

Now, about twenty-five years ago a large building and a piece of ground were purchased by voluntary subscriptions at the northern extremity of the old Hospital above described, which being cleared made room for a transverse wing running east and west, and in it were constructed four additional and commodious wards, a handsome room, chapel, and a well-lighted and convenient operating-theatre, all of which are in substantial repair, and enable us to accommodate 120 beds, whereas sixty or eighty were the extent in the original building.

It is true that the drainage has been at fault from time to time, and has required correction and improvement, which Mr. Yeo has shown has been attended with the best results. To such an extent has been the amendment, that "the death-rate at this Hospital is below the average of other country Hospitals." But I do not agree with Mr. Yeo that all the cases of erysipelas and other infectious diseases should be set down as contracted in the Hospital, because such diseases have been at times epidemic, and occurring in various parts of the city and suburbs, and were so in 1861, if I remember rightly, both at the county prison and union workhouse; and within the last month we have had a case of scarlatina, evidently brought in by a little girl previously infected.

Now, as I took a great interest in the construction of this important addition to the Hospital, which now accommodates one-third of the patients, and is quite sound in its structure, I cannot endure with complacency the idea that Mr. Yeo, who is a newly-appointed officer, should stigmatise the whole Hospital as old and condemned, when, by his own report, he allows it to be more healthy than it has been for some years. In a subsequent paragraph he says:—"In the case of the Winchester Hospital we have a remarkable instance of defective sanitary conditions, and yet a low average of death-rate," apparently forgetting what he had before stated of the improvement of the drainage and ventilation, through the suggestions of Mr. Rawlinson. Now, let us inquire by whom and for what has this Hospital been condemned? Six out of eight of the Medical officers attached to it signed a memorial against the removal of it when the question was first agitated about two years ago, and to these were added other Medical and retired officers' names, together with those of nearly 150 principal inhabitants, who entrusted the Mayor of Winchester with its presentation and advocacy at a court of governors. Nothing has since happened to invalidate the sound sense of this memorial, but everything to confirm it. The subscribers thereto saw nothing in the defects of the present building but what might be remedied by erecting another transverse wing at the southern end, or by repairing or reconstructing the old wards, and so, by spreading the patients over a larger area, to allow a greater number of cubic feet to each. The distance of the proposed new Hospital from the centre of the city and the surrounding population of the county is an objection that will more than counterbalance its greater airiness, which may, in fact, be called bleak, especially as the building is to face nearly north and south, on the side of a steep hill, and nearly a mile from the city. The resistance which has been made by the Medical staff of St. Thomas's Hospital to its removal from the centre of the population for which it was intended may be adduced in confirmation of the above objections, and to these may be added the difficulties and delays of access both for patients and Doctors, especially in cases of accidents, such as have recently occurred.

Having stated thus much, I must apologise for the length to which my zeal for the old building has extended, to counterbalance the idea that "you must be aware its days are numbered," etc. One word more as to drainage, which, in the proposed new Hospital, is to be by cesspools, as in the old; but ground and buildings have been purchased which will enable us to remove them to a greater distance; and we are in a much better situation to participate in the general drainage, which will eventually happen, than on the high ground above spoken of. I do not meddle with Mr. Yeo's death-rate statistics, which I am glad to observe have been so much commended.

I am, &c.

Charles Mayo, Senior Surgeon.

County Hospital, Winchester, March 29.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, March 15.

Mr. Prescott Hewett, President.

Dr. Wale Hicks read a report on his case of

CRANIA BIFIDA.

He had found that the sac protruded through the opening was formed of the tentorium cerebelli, and that under it was a communication with the left, but not with the left lateral ventricle.

In reply to the President, Dr. Hicks stated that there was no cerebral matter in the opening.

Dr. Wale Hicks also read a

REPORT ON A PORTION OF THE LUNG OF A HORSE EXHIBITED AT A PREVIOUS MEETING OF THE SOCIETY.

The portion of lung examined was found to be very slightly crepitant, and on being cut into small pieces some of them sank in water and others barely floated. On naked-eye inspection, it appeared to contain a quantity of greyish-white matter, filling up the spaces of the lung tissue. On microscopic examination this whitish matter was found to occupy the air-cells, filling up most of them more or less completely. It was seen to consist of corpuscles, varying somewhat in size and shape, the predominant form being spherical. These corpuscles contained much granular matter, and many of them appeared to be nucleated.

Dr. Harley said that Dr. Quain had reminded him that the specimen on which Dr. Hicks had reported was very like one he (Dr. Harley) had received from the Veterinary College. On section the lungs presented innumerable white spots, looking at first sight like entozoa. When he received the specimen it so happened that no less than seven pathologists were present, and none of them had seen a similar condition in the lungs. They were removed from a young horse, four years of age. The animal had had good health until six weeks before death, when it began gradually to lose flesh. The appearance of the lungs being very unusual, they were sent from the country to the Veterinary College, but the Professors there said they had never seen lungs in that condition. Dr. Harley looked for ova, but found none; but on microscopical examination found appearances similar to those Dr. Hicks described in his report, and he had no doubt the specimen was some form of cancer. Unfortunately, the other organs had been thrown away. Dr. Harley came to the conclusion that the cancer was secondary. Since examining this specimen he had received another nearly like it, but here there were masses of soft cancer in the spleen, and in the lung also were several large nodules, as well as the smaller ones found in the other specimen.

Dr. Wale Hicks said that in his specimen no distinct spots were found. The matter was uniformly infiltrated.

Dr. Quain suggested that Dr. Hicks should examine Dr. Harley's second specimen, and present a report upon it, and that it should be ascertained whether Dr. Harley's first specimen was not the one on which Dr. Hicks had just reported.

Dr. Murchison brought forward a specimen of

NECROSIS OF THE HYOID BONE.

A woman, 35 years of age, was first seen by Dr. Murchison

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October, 1862. She had had loss of voice for some months, and a few days before had coughed up the piece of bone exhibited. There was ulceration of one tonsil, which extended to the root of the tongue, tenderness on swallowing and movement, and also grating between two ends of the hyoid bone. There was no evidence of syphilis. In August a smaller piece was coughed up. For ten months she was under observation, and grating could be readily felt. In September, 1863, she was seen again. Then the voice was good; the grating was not to be felt; but the two ends of the bone were still moveable.

Dr. GIBB said one interesting point in the above case was the absence of evidence of specific disease. He (Dr. Gibb) had collected nine cases, and in two, or, perhaps, three, only did he find distinct history of syphilis. The disease, he said, began by acute periostitis; and he alluded to a case which he had successfully treated in this stage.

The PRESIDENT would not be certain that the bone was part of the hyoid, and he had doubts also as to the grating being anything abnormal. Some years ago a girl was admitted into St. George's Hospital for a diseased heel. She had a little tenderness over the larynx, and the Surgeon under whose care she was found grating. He considered this was evidence of disease of the larynx, and frequently drew the attention of others to the grating as a curious and rare symptom. The Surgeon was rather startled to hear from Mr. Gregory Smith, who saw the case, that grating on pressure of the larynx was normal. The patient died, and at the autopsy no disease of the larynx was found.

Dr. MURCHISON thought that if the President had seen the patient from whom the specimen was removed, he would have had no doubt as to its nature. He could take hold of each end and press them together; and this, too, was done by several observers. At first he fancied there might have been disease of the vertebræ, and that this might have been the source of the bone; but the symptoms were chiefly laryngeal, and the bone, on comparison with the normal hyoid, looked like a piece of that bone. Dr. Murchison said that if he could succeed in finding the patient he would send her to Dr. Gibb for laryngoscopic examination.

Dr. GIBB said that there could be no doubt that parts of the hyoid were coughed up. In one case the whole of the hyoid had been expelled.

Dr. Gibb was requested to examine and report on the specimen.

Mr. BARWELL brought forward a boy who had

A PECULIAR DISEASE OF THE TONGUE.

The tongue was fissured and in parts ulcerated. It began when the boy was four years old, but no cause could be ascertained. It followed a scratch on the upper lip. There was no evidence of syphilis, but the appearances in an adult would have suggested syphilis.

In reply to Dr. Crisp, Mr. BARWELL said he did not know whether the boy had been in the habit of eating coarse bread, and, in reply to Dr. Buchanan, that he did not know whether the boy had had any of the exanthemata.

Dr. QUAIN asked the President if he thought the appearance was disease, or merely a natural condition. He (Dr. Quain) knew a family in which several members had this peculiarity, and had often seen it in people who had no disease.

Mr. BARWELL remarked that the fissures might be natural, but that ulceration must signify disease.

The PRESIDENT said that from a cursory examination it seemed natural. He had often seen tongues looking like it, sometimes with ulcers and sometimes with clefts only.

Mr. BARWELL showed several

PHOTOGRAPHS OF CLUB-FOOT.

He brought them forward in order that he might speak on certain points in muscular pathology which had been touched on at a previous meeting. Mr. Barwell said that muscular fibre had two kinds of contractility—one directly dependent on cerebro-spinal stimulation, viz., active contraction; and the other a sort of elasticity, tonic contraction. The former was powerful and evanescent; the latter feeble, but constant. In the most severe affections of the nervous system there was no such thing known as continuous active contraction of muscles, so that it never occurs in nature that an active muscular contraction is either violent or continuous enough to produce permanent distortion. Mr. Barwell did not include deformities from assumed position or from disease of joints, but would take club-foot as an illustration of his views. This, he believed was due, not to active contraction of one set of muscles, but to paralysis, so that the tonic contractility of the opposite set produces the distortion. It was analogous to the distortion of the face in paralysis. Mr. Barwell thought that no sound judgment would admit that active contraction, which never produces non-congenital club-foot, would be a frequent cause of the congenital. He was rather surprised to hear Mr. Adams at a recent meeting say that he "could never find the slightest trace of paralysis in these cases," as he (Mr. Barwell) had found that there was in such cases a considerable loss of contractility under the electric stimulus. Had it ever, Mr. Barwell asked, occurred to the orthopædic mind that to distort a foot by active contraction a muscle must act with such energy that, if its tendon were cut, the ends would fly asunder like arrows from a bow? Mr. Barwell was surprised to hear it stated that brilliant results in Orthopædism were obtained in paralytic cases. Apart from theoretical considerations, he must say that the amount of lameness he had found left after operation in these brilliant cases was extreme.

Dr. HENRY DICK said he could not agree with Mr. Barwell on the subject of cutting tendons. The history of subcutaneous tenotomy was very instructive. Before Delpech and Stromeyer cut tendons, club-foot was not curable. Venel, in Switzerland, made strong efforts, in the last century, to cure deformities by extension, and he rarely succeeded except in slight cases. Scarpa did know well the pathological anatomy of club-foot, and advised judicious instruments; but still club-foot was rarely cured, and it was only since the introduction of tenotomy that the treatment made any progress. The elements of the deformity are not only the muscles, but also the ligaments and fasciæ. To overcome these elements of the deformity we are obliged to cut the tendons, and daily experience shows us that without cutting the tendons we cannot cure club-foot. Slight cases of club-foot or paralytic cases might do well without cutting. Dr. Dick always found that the action of the muscles after tenotomy was not weakened, and, as a rule, the patient gets a useful limb; so far experience was entirely in favour of judicious subcutaneous tenotomy.

Mr. ERNEST HART did not know if Mr. Barwell extended his views to the ophthalmic as well as to the orthopædic mind. The action of the muscles of the eye admitted of careful study and specialisation, and if Mr. Barwell would consider their condition in squint, both before and after operation, he would find that he had overstated his case.

Mr. BARWELL said, in reply to Dr. Dick, that there was no reason why club-foot should not now be cured without cutting tendons, because before Stromeyer began to cut them club-foot had never been cured at all. He knew, too, that instruments were used, without cutting, in the cure of club-foot, but he objected to them as much as he did to tenotomy. In reply to Mr. Hart, he said that he thought squint was more likely to be due to paralysis of the external, than to contraction of the internal rectus. If he could treat strabismus without cutting the tendon, he should prefer to do it; but it was impossible to treat the eye like the foot. We could not, he said, fix springs in the eye, but now and then we could cure strabismus without operation.

Mr. HULKE thought it would be doing an injustice to Donders, who had done so much in the investigation of strabismus and paralysis of the muscles of the eye, if he did not now mention that he had demonstrated the real cause of strabismus. In 95 per cent. the eyes of squinters were hypermetrophied. The squinting was not due to paralysis of the external rectus, but to undue convergence to increase the refractive power of the eyes. In slight cases of squint cure might be effected by spectacles.

Mr. BARWELL said that double squinting in such cases was analogous to the deformity which occurred from an assumed position.

Mr. HART thought that Mr. Barwell had not yet seized the point in question, that squinting was due to spasm, and not to paralysis.

(To be continued.)

REMARKABLE FECUNDITY.—Dr. Pomeroy, of Wisconsin, in the United (?) States, records the birth of eight living and two dead children in a lady patient under his care in the short space of two years. This case, which is published in the *Boston Medical and Surgical Journal*, bids fair to exceed in the number of living offspring any of the cases referred to by Dr. Warren, and it is hoped that Dr. Pomeroy will not fail to keep the Profession informed of the ratio of increase hereafter, and also of the state of health of the living children, with other particulars connected with so remarkable a case.

LAYING THE FIRST STONE OF THE NEW CARMICHAEL SCHOOL OF MEDICINE IN DUBLIN,

BY HIS EXCELLENCY THE EARL OF CARLISLE, K.G.

On Tuesday, the 29th ult., the foundation-stone of the new Carmichael School of Medicine about to be erected in North Brunswick-street, Dublin, with funds bequeathed for the purpose by the late Richard Carmichael, F.R.C.S.I., and made available during the lifetime of Mrs. Carmichael by her generous liberality, was laid by his Excellency the Earl of Carlisle, K.G., Lord Lieutenant of Ireland, in the presence of a large assemblage, including the President of the College of Physicians, Dr. Corrigan; the President of the College of Surgeons, Dr. Colles; the Regius Professor of Physic, Dr. Stokes; the University Professor of Surgery, Dr. Adams, one of the founders of the Richmond School; the Dean of the Chapel Royal, the Very Rev. Dr. Graves; etc., etc.

Dr. MacDonnell said:—I regret to say that the duty devolves on me of presenting to your Excellency the address on this occasion, in consequence of the unexpected illness of my colleague, Dr. Mayne, the senior proprietor in the School of Medicine, the first stone of which we are now going to lay. I regret his absence for many reasons, but especially because he is a man of whom we are all in this school very proud, and very justly proud. He has been the master of all of us, as he is now our colleague, and our very valued friend. Dr. MacDonnell then read the following address:—

"May it please your Excellency,—Being the senior lecturer at the old Carmichael School of Medicine, I have been deputed by Mrs. Carmichael and my colleagues to express to your Excellency our grateful acknowledgments for the high honour you have conferred upon us in graciously consenting to lay the foundation-stone of the new Carmichael School this day.

"By Mrs. Carmichael and by all of us your presence at this ceremonial is hailed as an auspicious omen of the success of an undertaking which we owe to the princely liberality of her late illustrious husband, Richard Carmichael.

"Your Excellency will permit me to add that we never for one moment doubted that your Excellency's reply to our humble request would have been in the affirmative, for the whole history of your Viceroyalty has shown the deep interest which you have at all times taken in every enterprise calculated to develope the resources of this country,—art, science, and literature, commerce, trade, and agriculture having each in turn, as occasion offered, received your patronage and support.

"With your Excellency's permission, I shall state in a very few words the history of the enterprise which we are about to inaugurate this day.

"In the year 1826 three distinguished Dublin Surgeons—two of them at that time connected with the Hospital of the House of Industry, but now, alas! no more!! one of them still connected with the Hospital of the House of Industry, and, I rejoice to say, present amongst us this day—conceived the design of founding a School of Medicine in the immediate vicinity of the Richmond Surgical Hospital.

"They were led to this project from observing that the splendid Hospitals of the House of Industry (in the midst of which we now stand) were not in those days as available for Medical education as they ought to have been, from the want of a sufficiently convenient Medical school, in which the elementary branches of Medicine, Surgery, and the collateral sciences might be learnt, the students who then frequented the Richmond Surgical Hospital being compelled to seek at distant parts of the city, and at a great sacrifice of time, instruction in those branches of Medicine which can be taught only within the walls of a Medical school.

"Richard Carmichael, Ephraim McDowel, and Robert Adams accordingly founded, at their own expense, in North Brunswick-street, yonder, the Richmond Hospital School of Medicine, and there (*mutato nomine*) it flourishes to the present day.

"The success of the Richmond Hospital School of Medicine is best attested by the large number of Physicians and Surgeons whom it has educated for all the different branches of the public service, civil and military.

"In the Medical Departments of the Army and Navy very many of our old pupils now hold Her Majesty's commission; and in the Civil Service they are to be found in every county in Ireland in charge of the county Infirmaries, or of the Workhouses, or as Dispensary Surgeons under the Poor Law.

"A remarkable circumstance in the past history of the Richmond Hospital School of Medicine has been the large number of its lecturers who have been promoted to Professorships elsewhere.

"At the present moment no less than four of the Professorships in the School of Physic in Ireland are held by gentlemen who formerly lectured here; and within a comparatively short period of time we have supplied seven Professors to the College of Surgeons.

"It is a source of honest pride to us to feel that so many of our old colleagues have been promoted to posts of honour and emolument, however deeply we may regret the loss of their valuable services to our own School.

"It is scarcely necessary for me to say that the late Mr. Carmichael, having taken an active part in founding the Richmond Hospital School of Medicine, continued ever afterwards to be its most devoted friend and patron.

"Previous to the year 1840 he had already given a large sum of money to found the Carmichael Prizes. These costly rewards of merit have been to the present day awarded annually at the close of the Medical Session to the best answerers in Medicine, Surgery, and the collateral sciences, and have largely contributed to the success of the School.

"It was the first attempt to introduce on a large scale the competitive system into the Medical Schools of Dublin, and it affords a signal proof of Mr. Carmichael's sagacity and foresight that he should have initiated a system which was afterwards adopted so extensively, and with such excellent results, in other departments.

"Almost the last act of Mr. Carmichael's life was to bequeath the munificent sum of £10,000 to rebuild the Richmond Hospital School of Medicine, either on the old site or elsewhere, as might be considered most advisable. This bequest was to be contingent upon the demise of Mrs. Carmichael.

"On June 8, 1849, the Medical Profession in Ireland was suddenly deprived of one of its brightest ornaments, and Medical science lost a favourite son. The circumstances attending Mr. Carmichael's death are far too vividly impressed upon the minds of all who now hear me to need repetition. In the midst of health, and in the vigorous discharge of his Professional duties, an accident removed from amongst us the noblest, the most munificent, and the kindest-hearted of Surgeons.

"From that day the Richmond Hospital School of Medicine has borne his name as a memorial of the affection and esteem entertained by its proprietors for their lamented friend and benefactor.

"Some months since, Mrs. Carmichael, with a noble generosity, intimated to the proprietors of the Carmichael School that it was her intention to place Mr. Carmichael's bequest at their immediate disposal. In doing so, she voluntarily deprives herself of a very considerable income, in order to carry out the most cherished wish of her heart—that of seeing with her own eyes her husband's intentions fulfilled.

"After much consideration it was decided that the site of the old Carmichael School was not the most eligible for the new School. The Hospital Committee, with a view to the mutual advantage of the Hospitals, of the House of Industry, and of the Carmichael School, and in order to identify them, as far as possible, with each other, proposed to place this plot of ground at our disposal. The Board of Works, with your Excellency's sanction, confirmed the proposal of the Hospital Committee; and Mrs. Carmichael at once assented.

"For the lecturers whom I have the honour to represent to-day, I have only further to say that the time and labour which they have hitherto devoted to the old Carmichael School shall henceforth be devoted with increased assiduity to the new Carmichael School, and that this noble educational establishment, worthy of the name and worthy of the fame of Richard Carmichael, shall never fail from any shortcoming on their part.

"On such a theme, were I to follow the bent of my own inclination, much more might be said; but the sentiment of the Roman poet forcibly occurs to me; and my classical friends will agree with me, and my fair friends will, I trust, pardon me, for addressing you in his words:—

"'Cum tot sustineas . . .
. . . in publica commoda peccem
Si longo sermone morer tua tempora.'"

His Excellency replied as follows:—Gentlemen, I have accepted most gratefully, and, indeed, with a deep sense of personal obligation, the invitation to lay the first stone of the

new Carmichael School. It would be most superfluous here, in the heart of Dublin, in the immediate neighbourhood of the noble cluster of the surrounding Hospitals, and above all, in the presence of so many of his own associates, pupils, and admirers, to recur to the professional reputation, memorable achievements, or not less signal personal qualities of Richard Carmichael. I would merely remark that there is a most appropriate and admirable consistency between the engrossing and devoted labours of his illustrious life and that parting and posthumous bequest of which, by an act of this afternoon, we are about to realise the beneficent results. In drawing an omen from the past efficiency of the Richmond Hospital or old Carmichael School, it must be most gratifying to see the inaugural work on which we are now engaged graced by the presence of Mr. Adams, who was one of the original colleagues of Mr. Carmichael in founding the primary institution, and who has trod the same path of honour and usefulness. This brief address would be, indeed, most incomplete if it made no mention of her who had the most interest in the fame of her husband, and who, showing a wiser as well as a nobler love than the Carian Queen of old, has not sought to raise over his cold remains her mausoleum in the dumb marble or lifeless statuary, but has caused him, though dead, still to speak in precious services to suffering humanity, still to live in the thanks and blessings of rescued multitudes.

The Lord-Lieutenant having advanced, aproned, and with trowel in hand, spread the mortar in true masonic style; and the stone having been lowered and adjusted, his Excellency having applied the plumb-line, etc., and declared the foundation well and truly laid, called on all present, including the ladies, to join in three hearty cheers for the "New Carmichael School of Medicine." The call having been duly honoured, one of the students present cried for three cheers for his Excellency, which was also loudly responded to. The important and interesting proceedings of the day then terminated.

The building will contain on the ground floor the entrance-hall, registrar's offices, lavatories, etc., for professors and students, anatomical theatre, students' reading-room, staircase, museum, curator's-room, porters'-rooms, and stores. On the upper story will be the dissecting-room, lecture-room for the demonstrator of anatomy, chemical lecture-room, laboratory, apparatus-room, museum of Materia Medica, and residents' apartments. There will be a basement under a portion of the building, containing the injecting-room, coal cellar, and ash-pit. A lift will communicate between the injecting-room, the anatomical theatre, and the demonstrator's-room, which latter adjoins the dissecting-room. The staircase, which will be stone, with an open timber roof and lantern light, will be supported by arcades resting on Bath-stone columns, with carved capitals and bases. Under the arcade will be placed the bust of the late Richard Carmichael, part of his munificent bequest to the School. The dissecting-room is placed on the upper story, in order to have the advantage of top as well as side light; the roof of this room will be open timber, with ample provision for ventilation. The principal front will be faced with punched granite ashlar, the window dressings of Caen stone; all projecting strings, cornices, and hood-moulds will be of Portland stone. The windows on this front will have semicircular heads, the discharging arches of granite and limestone alternately. The flanks and rear will be faced with black stone, with red brick window dressings, the funds at the disposal of the proprietors not allowing the granite facework to be carried round the whole building.

The architect to the building is Mr. J. E. Rogers, of Dublin, and the contractors are the well-known firm of Gilbert Cockburn and Sons, of Great Brunswick-street. The total cost will be about £6000, and the School will be handed over to the proprietors before the first day of October next.

TRACHEOTOMY IN CROUP.—Dr. Widerhofer presented two children (aged twenty-two months and three years) to the Vienna Medical Society as examples of the successful performance of tracheotomy in the last stage of croup. The operation was performed in four cases out of the twelve which occurred at St. Anne's Children's Hospital between October, 1862, and June, 1863, with two recoveries and two deaths. The indications for the operation, in his opinion, are—continued cyanosis with complete aphonia, irregular respiration, together with loss of consciousness and pulse; in a word, the stage of asphyxia.—*Wochenblatt d' Gesellsch in Wein*, No. 34, 1863.

LEGAL INTELLIGENCE.

NORTHERN CIRCUIT.

FOX *v.* GLEDHILL—IMPORTANT TO THE MEDICAL PROFESSION.

Mr. Price, Q.C., and Mr. Maule were for the plaintiff; Mr. Seymour, Q.C., and Mr. Kemplay for the defendant.

The plaintiff, a mechanic at Halifax, brought his action against the defendant, a Surgeon, practising at the same town, to recover damages for having wilfully neglected his duty in the exercise of his Profession, whereby the plaintiff's wife died in childbirth. On September 30 last she with her mother-in-law waited upon the defendant at his residence, and he agreed to attend upon the plaintiff's wife during her confinement. Symptoms of approaching labour were manifest on December 8, and on the morning of the following day Mrs. Fox became so rapidly worse, that her mother-in-law waited on the defendant and requested his immediate attendance. He declined, alleging as an excuse that he had to go down to the County Court, he having twenty cases to attend to, and if he were not present the judge would be angry with him. The mother-in-law returned, and when the plaintiff came home to dinner he was told the condition which his wife was in, and he instantly ran off for the defendant, who reluctantly consented to return with him to the house. The defendant then ordered the poor woman to be put to bed, some gruel to be given to her, but no brandy or any other stimulant. He told the plaintiff that his wife was "soft," and said that he should not be wanted for twenty-four hours, or perhaps three days or a week. The defendant then went away. At four o'clock next morning the plaintiff went to the defendant's house, and knocked loudly at the door. The defendant, who was in his night-dress, put his head out of the window, and the plaintiff told him to come down directly, as his presence was required immediately upon his (plaintiff's) wife. The defendant said that the woman was "soft," and if she went on in that way she would tire both him and the woman. They must be wrong in their heads to send for him in that manner. The plaintiff insisted upon the defendant seeing his wife, upon which he said if the plaintiff insisted he must go. On the road he remarked to the plaintiff that he was surprised at the women, as they did not seem to study his comfort. Before they arrived at the house they were met by the plaintiff's brother, who informed him that the poor woman was dead. The defendant then expressed his regret at what had happened, and said he wished he had attended plaintiff's wife the night previous. In justice to the defendant, it ought to be stated that he has been in practice thirty years, has never been considered a negligent man, and his character for humanity and respectability has never before been called in question.

Mr. Seymour submitted, in defence, that his client had undertaken to attend the case when in his belief his services should be required. When he first saw the woman he found that she was going on slowly in the right way, and that there was nothing at the time to excite alarm. He ascertained that the confinement could not in all probability take place within twenty-four hours, and exercising careful judgment and skill he was justified in the conduct he had pursued. Had he been present previous to death he could not have saved the woman's life. The learned counsel contended that the defendant had not been guilty of any negligence or a breach of contract, that there was no proof of the actual cause of death, and that it might have arisen from some other cause than that of labour.

The defendant was called, and he stated that when he was waited upon he told the party that he had to attend the County Court, and requested that another Medical man might be engaged. He saw the plaintiff at eight o'clock at night, and then requested him to send before ten if his services should be required. No person came, and soon after twelve he went to bed, and was not aroused by the plaintiff until nearly five o'clock next morning. He entirely denied any reluctance to attend the case, and also denied making use of the unkind remarks attributed to him. It was not improbable that disease of the heart might have caused the death of the plaintiff's wife. Verdict for the defendant.—*Yorkshire Gazette*,

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THE MEDICAL PROFESSION.—From the general classification of the population enumerated in England and Wales at the census of 1851 and that of 1861, it appears that the Physicians increased from 1771 to 2385, but the Surgeons and Apothecaries decreased in number.

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MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, March 31, 1864 :—

John New Moore, Moreton-in-Marsh; William Samuel Wilson, Hereford-road North, Bayswater; Eugene St. Paul Hadwen, Waterloo-road, S.; George White, Thatcham; Walter Tawell Colman, London Hospital; Philip George Philps, Westbourne-park-road; Lyttleton Frederick Osbaldeston, Hatfield, Herts; William Reuben Booth, Great Queen-street, S.W.

The following gentlemen and lady, also on the same day, passed their First Examination :—

Edward Charles Evans, King's College, London; George Arthur Brown, King's College, London; John Thomas Langley, St. Bartholomew's; Elizabeth Garrett, 22, Manchester-square.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

COULTAS, Mr. H., has been appointed Professor of Botany in the Charing-cross Hospital Medical College.

FERRIS, JOHN SPENCER, M.R.C.S. Eng., has been appointed Resident Medical Officer to the Bloomsbury Dispensary.

MOIR, JOHN, F.R.C.P., Edin., has been appointed Physician to the Royal Hospital for Sick Children, Edinburgh.

PRANCE, CHARLES R., M.D. Edin., has been elected one of the Physicians to the Plymouth Public Dispensary.

TWIGG, Dr., Jun., has been appointed Medical Officer to the Dungannan Workhouse and Fever Hospital.

WOODMAN, WILLIAM R., M.D. St. And., has been appointed Surgeon to the N division of the Metropolitan Police.

DEATHS.

ANDERSON, Dr., at Nice, formerly of Newburgh, Scotland, on March 16.

BELL, JOHN, M.D., Edin., at Jedburgh, Scotland, on March 26, aged 84.

BEVERIDGE, JAMES H., L.R.C.S. Edin., at Tarbert, Argyleshire on March 15.

CHEETHAM, JAMES K., M.D. St. And., of Lord-street, Rochdale, at Eaton-road, Chester, on March 24.

DIXON, Dr. F. B., at St. Thomas's-square, Hackney, N.E., on April 3, aged 50.

HENDERSON, JAMES, R.N., Deputy-Inspector-General of Hospitals and Fleets, at 5, Belgrave-terrace, Lee, Kent, on March 31.

HUNT, John J., L.K.Q.P.C.I., of Danesfort, Mallow, at Bournemouth, Hants, on March 19.

JOHNSTON, FRANCIS G., M.R.C.S. Eng., at Antrim-road, Belfast, on February 18.

KING, GEORGE HENRY, M.B. Lond., at Horncastle, Lincolnshire, on March 29, aged 40.

MARTLAND, RICHARD, M.D., Edin., at Blackburn, Lancashire, on March 28, aged 69.

SANDERSON, JOHN THOS., M.D., Staff-Surgeon, H.M.I. Army, at Kurrachee, Scinde, on February 15.

TAYLOR, WILLIAM BAKER, late Surgeon-General, Army Medical Board, Bombay, at the Grand Hotel du Louvre, Marseilles, on March 29, aged 61.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the general monthly meeting, held on Monday, April 4, Colonel Yorke, F.R.S., Vice-President, in the chair, Alexander Collie, Esq., Albert Grant, Esq., Bernard Augustus Hewitt, Esq., the Rev. Sir Edward Jodrell, Bart., M.A., F.S.A., Godfrey Lushington, Esq., Vernon Lushington, Esq., Colonel Richard Cornwallis Moore, Royal Artillery, C.B., James Stern, Esq., John Tozer, Esq., LL.D., Serjeant-at-Law, were elected Members of the Royal Institution. Dr. Leckie, Dr. Stevenson, Dr. De Leon, Colonel Salkeld, and Colonel A. Palk were admitted Members of the Royal Institution. The Secretary announced the following additions to "The Donation Fund for the Promotion of Experimental Researches :"—Samuel R. Solly, Esq. (second donation), £20; Henry Lainson, Esq., £10 10s.; Colonel Philip J. Yorke, £10; John J. Bigsby, M.D., £5 5s. The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same.

ELECTION OF A CORRESPONDING MEMBER OF THE SOCIETY OF SURGERY OF PARIS.—Mr. J. Sampson Gamgee, of Birmingham, has had the distinguished honour conferred upon him of Corresponding Member of the Society of Surgery of Paris. The diploma was accompanied by the following gratifying letter :—"Society of Surgery of Paris, Paris, March 31, 1864. My dear Colleague,—I have the honour to address you the diploma of Foreign Corresponding Member, which the Society of Surgery conferred upon you during its sitting of January 13, 1864. The Society is happy, my dear *confrère*, to have added your name to its roll of members, and it hopes that you will have the goodness to communicate to it your new works. I am happy that it pertains to my official duties to offer you the first salutations as a new colleague, and I take this opportunity to present you the particular expression of my most distinguished consideration.—The General Secretary, Legoust, Surgeon of Val de Grâce."

BRADFORD EYE AND EAR INFIRMARY.—LAYING OF THE FOUNDATION-STONE.—On Tuesday morning, March 29, the foundation-stone of the new Infirmary, intended to be erected by the committee of the Bradford Eye and Ear Institution, was laid in Hallfield-road, by Titus Salt, Esq., of Saltaire. The following is a description of the intended building :—The new building will be nearly 100 feet long and 60 feet wide, and five stories high. It is designed in the early decorated style of Gothic art, and will group well with the new chapel and schools below it, presenting a very effective appearance from Manningham-lane. In the centre of the front is a large gable with an arcade opening into the principal entrance hall, and above this an oval window. On each side of the centre are 3 three-light windows, with shafts and carved capitals, and over them two-light windows with pointed and traceried heads and Norman gablets above. The ground floor is devoted on one side of the entrance hall to the dispensing, waiting, and consultation rooms, with separate ingress and egress for the out-door patients; and on the other side a large convalescent patients' room to the front, and the kitchen department to the rear, with has also a separate entrance. On the first floor are two male and two female patients' wards, containing 18 beds, each bed with a space of 1600 cubic feet, totally distinct from each other, with nurses' rooms, bath rooms, lifts, and every convenience. The operating room is on this floor, but totally isolated, and lighted in the most approved manner. The entire building is heated with hot water; but open fireplaces are also introduced, and attention has been paid to thorough ventilation. The total cost of the building, including furniture and land, will be £5500.

EPIDEMIOLOGICAL SOCIETY.—The annual meeting of the Society was held on the 4th inst. A report was presented by the Council, which showed that the state of the Society, both generally and financially, was most favourable; and the following office-bearers were elected for Session 1864-5 :—*President*—Gavin Milroy, M.D., F.R.C.P. *Vice-Presidents*—His Excellency the Earl of Carlisle, K.G.; the Earl of Shaftesbury, K.G.; the Right Honourable W. Cowper, M.P.; Benjamin Guy Babington, M.D., F.R.S.; Henry W. Acland, M.D., F.R.S., Regius Professor of Medicine in the University of Oxford; Alex. Bryson, M.D., F.R.S., R.N., Inspector-General of Fleets and Hospitals; Edwin Chadwick, Esq., C.B.; James Copland, M.D., F.R.S.; William Farr, M.D., F.R.S.; J. Brown Gibson, M.D., C.B., Director-General, Army Medical Department; William Jenner, M.D., Physician to the Queen; Sir J. Ranald Martin, C.B., F.R.S., Physician to the Council of India; Alex. Nisbett, M.D., R.N., Inspector-General of Fleets and Hospitals; John Simon, Esq., F.R.S., Medical Officer of the Privy Council; Sir Andrew Smith, M.D., K.C.B.; Thomas Watson, M.D., F.R.S., President of the Royal College of Physicians; William D. Chowne, M.D., F.R.C.P.; Charles Murchison, M.D., F.R.C.P. *Foreign and Colonial Secretaries*—Belgium and France: Dr. Waller Lewis; Germany and Russia: Dr. Hermann Weber and Dr. Swaine; Sweden, Norway, and Denmark: Dr. Gordon Latham, F.R.S.; Portugal and the Brazils: Dr. Bryson, R.N., F.R.S.; Egypt and Syria: Dr. Camps; East Indies: Dr. James Bird; West Indies and North America: Dr. Dickson, R.N. *Treasurer*—Wm. Camps, M.D., F.S.S., F.L.S., 40, Park-street, Grosvenor-square, W. *Secretary for the Navy*—Dr. Mackay, R.N., Secretary for the Army. *General Secretary*—J. N. Radcliffe, Esq., 32, Guildford-street, Russell-square, W.C. *Other Members of Council*—Dr. Aldis, F. G. Burge, Esq., Colonel Hough, Ernest Hart, Esq., C. F. J. Lord, Esq., Dr. Crawford, J. F. Marson, Esq., Dr. Morehead, Dr. Odling, F.R.S., Dr. Richardson, Dr. Sanderson, Dr. Seaton, Dr. Haward, and Dr. Letheby. After the election of office-bearers, Dr. Babington, on retiring from the chair, which he has occupied for thirteen years, delivered an address on the "Origin, Present Position, and Prospects of the Society."

PERCHLORIDE OF IRON AND COLLODION.—This combination constitutes a good hæmostatic in the case of cuts, leech-bites, etc. One part of the crystallised perchloride of iron is to be dissolved in six parts of collodion; but this

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must be done very gradually, or the heat which is produced will cause the ebullition of the collodion. The mixture is a yellowish-red, limpid fluid, which, when applied to the skin, gives rise to a small yellow pellicle possessed of great elasticity.—*Reine Med.*, Nov. 15.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

H. G.—The "Trichina Mirror" is published by Denicke, of Leipzig.

Dr. Walker's paper is in type, and shall appear, if possible, next week.

Mr. R. Oke Clark.—Each fluid ounce of the Extractum Ergotæ Liquidum is equal to one ounce by weight of ergot.

A disgusting book of the Manly Vigour class, entitled "Short Account of Sir Astley Cooper's Vital Restorative," bears on the title-page the name of Messrs. Harvey and Co., Consulting Surgeons, (registered under the new Medical Act), 44, Weymouth-street. Of course, there is no such name and direction on the Register. Surely this is a case in which the Medical Council are bound to interfere. The Act clearly gives them power to do so.

A Fellow.—We believe the rent paid both by the Pathological and Obstetrical Societies to be extremely moderate, and that neither could get elsewhere anything like the advantages for double the money. Besides, it is a great convenience to the members of the Pathological or Obstetrical Societies who also belong to the Medico-Chirurgical. Gentlemen may differ about the value of everything on earth. What is objected to is not the amount, but the determination which was supposed or alleged to exist, to screw up the tenants and exact a hard bargain. If the Medico-Chirurgical were really to act the griping landlord, it would be *infra dig.*, no matter whether the sum claimed be great or little. All such arrangements should be on a friendly and gentlemanly footing, not on a commercial footing. We believe the best feeling exists on both sides, and that the matter should be let drop. But we repudiate the notion that the Medico-Chirurgical can consistently attempt to treat these younger societies as mere lodgers, or to make a profit out of them, and to argue that it is to their interest to stay, and, therefore, that the screw may be put on. We look on the present arrangement as equitable on the part of the landlord and advantageous to the tenants. The *British Medical Journal* is true to its trade character in this as in most things, but the Profession will not tolerate a large infusion of the commercial element.

Errata.—"On Trichina Disease," p. 362, line 30 from the bottom, read, "the male trichinæ," instead of "those trichinæ." By an error of the press, a comma, instead of a full stop, was placed after the clause "Nestor of British Surgery," in the article "Topics of the Day," which appeared in our last week's number, p. 367.

Chronic Ulceration of the Tongue.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Could any of your numerous readers assist me in the treatment of the following case? P. T. has been troubled with small ulcers appearing on and under his tongue and fauces, in successive groups; and as one lot disappears, another begins to show itself. He says they commenced five years ago, and he cannot account for them; he never had any eruption of any kind on his skin, neither was he ever salivated. So far as I can make out, they have not originated from syphilis. I am, &c. H. M. S.

The Statistics of Mitral Disease.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Have you any precise statistics by which you can answer the following question:—

Which is the most frequent pathological condition in mitral disease?—*i.e.*, Incompetency—1st, Regurgitant disease without obstruction; 2, regurgitant with obstruction. Simple obstruction—3, Obstruction without regurgitation.

My experience is that although the regurgitant murmur is the sound most frequently heard, it is also the sound most easily heard. The presystolic sound which should be heard in obstruction is sometimes not heard, and when heard at all, there is generally a difficulty in hearing it; but from a number of cases I have had the opportunity of examining after death, I have found what is commonly called the "button-hole" contraction the most frequent of all, and certainly incompetency of the valve alone the least frequent. I am, &c.

Stafford, April 4. HENRY DAY, M.D.

The Army Medical Service.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—With reference more especially to the letter of "Truth" in your Number of the 26th inst., wil you kindly permit me to refer to the N.B. of a letter from "Quarter Century," in the *Medical Times and Gazette* of March 31, 1860, page 325, a copy of which I transcribe:—

March (a), 1860, N.B.—"The late regulations, so far as the wants of regimental Medical officers are concerned, in our view were carried in a wrong direction, taking away what semblance of substantial rank they had, and making it like that of civilians, a mere mark of length of service. To pay Medical officers as really civilians is quite out of the question, nor is it desirable, if the finances of the country even admitted of it. It is only by substantial rank and military honours," etc., etc.

Nor can we agree with "Truth," that the army should, in any way, become a school and convenience, but that having made, it should also have the benefit of the ripened experience of its Medical officers,

I am, &c., QUARTER CENTURY.

(a) This was when the new regulations seemed to be giving so great satisfaction, and it had been well they had never been so altered, and questions raised. The "weary siller" blinded the eyes.—Q.C.

The Liverpool Medical Society on the Birkenhead Case.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am directed to ask the favour of your insertion of the enclosed resolution, passed at a meeting of the Liverpool Medical Society, held on the 31st ult. I am, &c. HENRY LOWNDES, Hon. Sec.

1, Catherine-street, Liverpool, April 1.

Resolved—"That the Medical Society of Liverpool regrets that sudden and dangerous accidents and illnesses occasionally occur among the poor of large towns, to meet which the present arrangements of the Poor-law Board and of the Medical charities are inadequate. That the public has no right to expect that the members of the Medical Profession shall, *nolentes volentes*, be burthened with gratuitous attendance upon such cases, and insulted at inquests for declining to attend strangers. That it is the duty of Boards of Health or of the police to secure Medical attendance on such cases, by paying, out of the public purse, fees for all such urgent cases as the police officer on the beat may report as requiring immediate attendance."

Potassio-Tartrate of Iron in Syphilis—Amylene as an Anæsthetic.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In Braithwaite's "Retrospect of Medicine," vol. 35, p. 234, Dr. Behrend, of Liverpool, after detailing some interesting cases of primary syphilis, successfully treated with the potassio-tartrate of iron, stated that he was not then prepared to speak of its efficacy in secondary syphilis, but that he had several cases at the time under treatment, the results of which he would make known as soon as they were arrived at. May I ask have those results been published since, and have they been as successful in the secondary as in the primary form of the disease?

In p. 356 also of the same volume, it is stated that the vapour of amylene in midwifery was then upon trial at the various London Hospitals, but that a positive opinion could not at that time be yet pronounced on its merits. I should be glad if any of your readers would inform me of the result to which those experiments have conducted, and the opinion now entertained by the Profession in reference to the use of amylene. At the page indicated it is stated—"Dr. Tyler Smith thinks the advantages, as compared with chloroform, in midwifery, would seem to be the suddenness of its influence and its asserted safety, and the rapid disappearance of the insensibility after the amylene is withdrawn." If those advantages, with the others described by Dr. Smith in the article quoted, have been experienced also by other Practitioners, I should suppose the amylene to be at present in extensive use, and I shall feel obliged by whatever information you can afford on this subject.

April 4. I am, &c. B. W. C.

[*** Since the fatal case which occurred in Dr. Snow's practice, amylene has been very seldom used as an anæsthetic in this country.—ED.]

The Army *v.* Civil Practice.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I perceive that some of the Assistant-Surgeons of the Army are getting dissatisfied with their position—a thing which is far from new—but some are going the length of resigning their post and coming to swell the already crowded ranks of civil practice. Now these, like other Government appointments, are not easily obtained; one might say unobtainable without that social or political influence commonly called "friends at court," and this notwithstanding the competitive examinations. Yet things are not pleasant enough for the holders of them, who appear, some of them, to have taken to the idea that there are no disagreeables in civil life—no hope deferred nor trying delays, and have rushed to the ills they know not of.

In your Number of this week there is a letter from one of these resigned, but discontented, individuals. I take the liberty to inform him that if it were as easy to get into the Army on leaving private practice as it is to join the civilians, there would soon be practices thrown up and assistancies vacated in numbers sufficient to supply the wants of half a dozen armies; that men without influential connexions have to seek practice when and where they can, and that it is a piece of unsavoury cant and a gross calumny to insinuate that they are deficient in morals or attainments if they are not in satisfactory practices soon after 25.

Surely the morality of civil life will bear comparison with anything to be found in the Army at any age. and it is certainly quite new to see red coats and white chokers combined. Moreover, it is common enough to meet with men still attending lectures after they have passed 25, or, in some cases, even have attained 30; besides, there are others obliged to retain the post of assistant in civil practice, and does he think any of these get 10s. a day and quarters, or does he mean to tell us that money and influence of the kind I have referred to represent just so much brains and quality? He will, perhaps, tell us how he and so many others came to shirk the difficulties and uncertainties of civil life at the age of 25. Was he not himself afraid of being a failure where the merits of every one are severely scrutinised and criticised, often with reckless disregard to justice? I am, &c.

Sunderland, March 17. AINE.

*** We can inform our correspondent that at present Assistant-Surgeoncies are most easily obtainable. There are, we hear, now about a hundred vacancies.

How to Become Stout.

By C. W. STEVENS, Esq., A.B. Cantab., B.Sc.

I am uncertain whether I have met with more obese persons who were anxious to reduce their redundant corpulence than thin individuals who wished to become stout. As I have fortunately made some encouraging experiments, I will make a few suggestions which have appeared the most useful. Mr. Banting has so successfully come to the rescue of the first class that I shall allude only to the second.

Dr. Prout says justly, "In an individual unnaturally fat or lean an error exists somewhere, and either he inherits a propensity to disease or he is producing it for himself." As extreme examples, I will mention the "Living Skeleton," and a young woman whom I saw in America, and who weighed 600 lbs.! Since the causes of these morbid conditions (whether malignant disease, dyspeptic, or other functional organic disorder) are too numerous to be specified here, I shall omit them.

1st. *Diet.*—In regard to bread, I wish particularly to recommend Indian corn, or maize, which is richer in oil than any other cereal. It should be used in the form of superfine yellow meal, of universal use in America. Made into loaves and sweetened with treacle, or into stir-about or hasty pudding, it is delicious, and its fattening properties are very important. Cod liver-oil, which has recently been largely given in France to fatten

domestic animals, and with brilliant success, should be daily taken. If used with equal parts of Liq. Calcis, or if a drop of Ol Amygdalæ be added to two ounces, it is not disagreeable.

Breakfast.—Bacon, bread and butter, or, instead of butter, fresh olive oil, cocoa or chocolate, omelets, eggs, olives.

Dinner.—Turtle soup, liver of the cod, roast pork or sucking pig, brains of birds, fat roast mutton, peas, carrots, rice, suet pudding, figs, nuts, wine or stout, but no spirits nor spices.

Tea and Supper.—Indian meal, bread and butter, or hasty pudding, with milk, wine or stout, or cocoa, but no tea, nor spirits, nor spices.

2nd. *General Habits.*—Early retiring to rest and long sleep are necessary. I recently read in a hydropathic work a serious anecdote of a jockey who, by training, reduced himself from fourteen to ten stone. After the race he slept for sixteen hours uninterruptedly, and on waking he weighed the original fourteen stone! *Credat Judæus non ego.* It is certain that in sleep the metamorphosis of tissue is very small, and the powers of mind and body are invigorated. Excess in venery should be avoided; nay, "*Venere si fieri potest abstinendum est.*" There should be daily moderate exercise, but not to produce perspiration; for this quickly reduces weight. Smoking or chewing tobacco should be abandoned. Mr. Headland has adduced the use of tobacco as the cause of the lanky, thin appearance of many of the Americans. It would be easy to disprove this by remarking that Mexicans, Spaniards, and Germans smoke as much, if not more, than Americans; and, secondly, that it is the dietetic habits of the Americans which produce this. It is certain, however, that excessive expectoration weakens digestion and reduces weight.

Poor-law Medical Reform Association.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Be good enough to allow me space to inform the Poor-law Medical officers that, on March 30, I forwarded to the Select Committee on Poor Relief a pamphlet containing a summary of the principal points of the evidence relating to the Medical relief of the poor, which I had the honour of submitting to them last February. I did so in consequence of observing in *Knight's Official Advertiser* that "it is understood the Committee have determined not to examine any further witnesses, and are now considering their report." Having, therefore, great fear my evidence might not be taken into consideration, I adopted the simple course of sending a condensed report of it to each member of the Select Committee, thinking it just possible that during the Easter recess he might have leisure to read it.

Mr. Cane, in his "statement" to the Committee, took my evidence and replied to it almost *seriatim*. I have adopted a similar course with his "statement," and, in like manner, have given a rejoinder, which I hope will entirely refute his plausible, but erroneous, conclusions.

I regret the low state of the finances would not permit me to print a sufficient number of copies for all the Poor-law Medical officers; one, however, I have sent to each of the subscribers to the Association for this year, and, so far as the remaining part of the 200 copies will go, I shall be glad to forward them to those who may send their subscriptions. I understand it is probable the Committee will shortly make their report to Parliament. I sincerely trust it may be favourable to our views, but whether it is so or not, I feel convinced that we have proved our case, and judgment ought to be given in our favour.

Since March 20, I have received the following subscriptions:—Morris, N. T., Wigan, £1; La Fargue, P. A., Meriden, 5s.; Prowse, W., Amersham, 2s.; Fairthorne, G., Amersham, 2s.; Brickwell, B. A., Amersham, 2s.; Barker, Dr., Aldershot, 5s.; Odell, T., Hadfield, 10s. 6d.; Dowling, J. H., Cerne, 5s.; Kendall, T. M., Freebridge, Lynn, 10s.; Harper, T., Plymouth, 2s. 6d.; Stevens, J. N., Plymouth, 2s. 6d.; Hicks, J. H., Plymouth, 2s. 6d.; Dale, W., Plymouth, 2s. 6d.; May, J. H. S., Plymouth, 2s. 6d.; Kingdon, A. S., Bideford, 10s.; Pridham, T. L., Bideford, 5s.; Fernie, A., Barnstaple, 10s.; Berryman, J. P., Gt. Austell, 6s.; Irving, W. B., Newark, 5s.; Harday, G., Rugby, 5s.; Smith, Dr., Weymouth, £1 1s.: Smeathman, G. T., Wycombe, 5s.; Wood, H. S., Tavistock, 5s.; Young, W. B., Reading, 10s.; Walford, T. L., Reading, 5s. 8d.; Workman, F., Reading, 5s.; Dodgson, H., Cockermouth, 5s.; Bell, H., Cockermouth, 5s.; Giles, H., Witham, £1; Moore, E., Bethnal-green, 2s. 6d. I am, &c.

12, Royal-terrace, Weymouth, April 2. Richard Griffin.

Instrument for Dilating the Cervix Uteri.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Allow me to mention in your columns the following facts in connexion with the above instrument:—Some little time since, during my residence in the Lock Hospital as House-Surgeon, I was sitting with Mr. Walter Coulson in his study, and while conversing upon the subject of diseases of the urinary and urino-generative system in the female, Mr. Coulson said to me—at the same time that he showed me the instruments—"It has occurred to me that we might use this"—referring to Holt's urethral dilator—"for the purpose of dilating the cervix uteri." I replied that the objection which would be at once urged against it would be, it is dangerous because of the amount of bruising or even of laceration that might be, or indeed would be, inflicted upon the contracted or rigid tissues in order to effect our object; and, besides, that the uterotome, either of Dr. Greenhalgh or Dr. Simpson, was a very efficient and safe instrument,

I added, that I thought if one adopted this method of forcible dilatation the urethral dilator of Mr. Henry Thompson, of University College Hospital, was very much to be preferred to the instrument devised by Mr. Holt, since we might be enabled to ascertain the exact seat of constriction, and so act upon it alone or chiefly. I had not seen, or even known, that Mr. Thomson had devised and used an instrument different from Mr. Holt (because I had never seen it used in Dublin, Mr. Holt's being employed, or some modification of it,) until I saw Mr. Thomson himself operate at the University Hospital upon a patient suffering from an old relapsing stricture. When Mr. Thomson, with his usual courtesy, was explaining the instrument and its working to me, it occurred to me that the same or a modification of it might be admirably adapted to cases of narrowed cervix, and might in such be used with immense advantage. I did not know that Mr. Ellis had been using an instrumen of this kind for some time, and in such cases, nor that Dr. Priestly had devised one on a similar principle and with a similar object.

On my return from University College Hospital, I called upon Mr. Pratt, in Oxford-street, that I might more minutely examine the urethral dilator of Mr. Thomson, with a view to ascertain if it could be employed with safety as a uterine dilator. I was satisfied in my own mind that it might be used in such a way, and with perfect safety to the patient. The correctness of my inferences has been attested by Dr. Priestly and Mr. Ellis.

Of this I am confident, that Mr. Coulson was likewise not aware that this kind of instrument had been used or proposed when it had suggested itself to him. In conclusion, I would merely say that my conversation with Mr. Coulson upon this subject took place after I had seen Mr. Thomson's instrument for the first time, and after it had occurred to me that such an instrument might be applied for dilating the cervix uteri.

Since Mr. Ellis has been acquainted with it now for some time, and has in many cases tested its value, I must express regret that he has not brought it under the notice of the Profession before the present occasion. It is, for the sake of science and for the sake of our suffering fellow creatures, to be very much regretted, that talents are buried in napkins and lights hidden in bushels—that inventions, no matter what they may be, or in whatever department of science—that discoveries in medicines, in their therapeutic properties or otherwise—discoveries in the symptomology of diseases dependent upon causes known or unknown, in the application of certain drugs or remedial agents for the successful combating of those symptoms as they arise—are not at once given out for the public weal or submitted by the discoverers or inventors to the test of general use and the experience of others than themselves.

I am, &c.

G. de Gorrecquer Griffith, late House-Surgeon at the Hospital for Diseases of Women and at the Lock Hospital.

Claverton-terrace, St. George's-square, April, 1864.

African-Aid Society.—African Surgeons for Africa.

The African-Aid Society addressed the following letter to the Right Honourable Earl de Grey and Ripon, President of the Educational Committee, etc., etc., under date 1st of February, 1864:—

My Lord,—The perfect immunity from yellow fever enjoyed by the native-born African, when this destructive epidemic is sweeping off the Europeans on the West Coast of Africa, has long been viewed by this Society as worthy of particular regard in questions of British Administration in her Majesty's colonies, forts, and settlements on that Coast.

It seems particularly desirable that when an epidemic of so virulent and fatal a nature is raging, there should be no lack of Medical assistance, as there unfortunately has often been in consequence of the deaths of European Surgeons from yellow fever.

It having been fully established that native Africans are capable, if properly educated, of attaining such a degree of efficiency in Surgery and medicine as entitles them to, and secures for them, the confidence and respect, not only of educated people of colour, but of eminent Europeans on the West Coast, the Society take the liberty of expressing their opinion that there can be no doubt as to the advisability and necessity of an adequate supply of properly qualified native African Surgeons and Physicians for service on the West Coast, by which the certainty of Medical attendance for the sick at periods of violent epidemics, as well as at all other times, will be secured.

The Society having in view the many loathsome and destructive maladies which assist in depopulating Africa, and increasing the misery of its people, cannot avoid the further expression of their opinion that it is the duty of this Christian country, on the ground of common humanity alone, if on no other, to endeavour to qualify many natives of Africa in medicine and Surgery, to supply the means of mitigating and removing much of that misery.

The Society is aware that it has been suggested to Her Majesty's Government that a Medical school for the educated natives of various parts of Africa should be established by Her Majesty's Government at Sierra Leone, in a great degree, if not entirely, under the direction and superintendence of competent Medical men—natives of Africa—who have passed with success through the Medical schools in Great Britain, and have since given proofs of efficiency in Her Majesty's service in Africa.

The Society has the honour to solicit for that suggestion the full and impartial consideration which Her Majesty's Government must naturally be disposed to give to a matter connected with an economy of valuable European life in Africa—an ultimate economy of money in the Medical department of Her Majesty's service in Africa—and an effective application of the inestimable benefits of Medical and Surgical skill among the suffering multitudes of Africa, who are known to appreciate this result of our civilisation whenever it is brought within their reach.

On behalf of the Council of the African-Aid Society,—I have the honour to remain, etc.—*African Times.*

COMMUNICATIONS have been received from—

Mr. James Beavan; Dr. E. E. Day; Mr. Richard Griffin; Anonymous; Dr. E. Bronner; Mr. Christopher Heath; Mr. A. Riant; Apothecaries' Hall; Mr. Henry Lowndes; Professor Haughton; Medical Society of London; Mr. Walter Bernard; Mr. Henry Thompson; N. G.; Quarter Century; Dr. E. Griffith; B. W. C.; Dr. R. S. Sisson; Dr. Thomas J. Walker; Mr. Robert Oke Clark; Ethnological Society of London; Mr. John S. Ferris; Dr. J. S. Bristowe; H. M. S.

BOOKS RECEIVED.

A Manual of Diet and Regimen for Physician and Patient. By Horace Dobell, M.D. London: John Churchill and Sons. 1864.

*** A very well meaning attempt to construct diet tables on a scientific principle. The quantity of nitrogen, carbon, &c., required by the average healthy man is calculated, and the equivalent quantities of meat, bread, butter, potatoes, etc., etc., are arranged in diet tables, each containing enough for a day's consumption. There are also lists of articles, copies of which, we suppose, are to be given to the patient with the word "no" written against those prohibited;—lists also of wines, etc., with the quantity of alcohol contained, and of various articles with the per centage of plastic, respiratory, etc., etc. Very pretty, and there we stop. It is well known that the *average* man does not exist—no more does the average dinner—a man may require half as much again on Monday as on Tuesday. Still less can an average wine be talked of. When our author speaks of Roussillon, Sherry, Cape Madeira, South African port, and Port, and of their contents in alcohol, and gives rules for prescribing those and other fermented liquors by the average quantity of "absolute alcohol" they contain, we can only shrug our shoulders, and bless ourselves that we don't often dine with a man who estimates his wine by such a standard. The diet tables have a very workhouse-look. The whole thing is unpractical.

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Excision of the Scapula. By James Syme, F.R.S.E. Edinburgh: Edmonston and Douglas. 1864. Pp. 35. Plate and Woodcuts.

*** Mr. Syme lays it down that the entire scapula, either alone, or together with the arm, may be removed without much difficulty or loss of blood; 2. That the wound thus inflicted may heal quickly and soundly; 3. That the arm if preserved may be strong and useful; therefore, that excision of the scapula may be recognised as a legitimate and established procedure of Surgery. Case 1.—Old woman of 70; osteo-sarcoma of scapula, size of cocoanut; removal; recovery virtually *quoad* operation; death on sixtieth day from debility. Case 2.—Man aged 43; head of humerus removed for osteo-sarcoma on November 14, 1860; recovery; tumour of scapula appeared in 1861, removed November, 1862; recovered in six weeks. Case 3.—Man aged 40; head of humerus removed September 16, 1860; tumour of scapula in 1863; removed successfully.

On Paralysis, Neuralgia, and other Affections of the Nervous System, and their Successful Treatment by Galvanisation and Faradisation. By Julius Althaus, M.D., etc. Third Edition. London: Trübner. 1864 Pp. 236.

*** This is a gentlemanly, readable work, and not chargeable with the sin of ignoring other remedies, or of unduly exalting the virtues of galvanism. It contains much that the Practitioner ought to know before he uses or recommends this agent.

The American Journal of Medical Sciences. January, 1864. Philadelphia: Blanchard and Lea.

*** Contains some very good original articles, including a narration of a case of hypertrophied cervix uteri of twenty-six years' standing, with prolapse relieved by a very carefully devised and complicated operation; good histories of epidemic fevers and influenza; case of amputation at the hip-joint; remarks on wounds of arteries, aneurism, etc., besides reviews, notices, etc., which render this journal an admirable quarterly summary of medicine, as it presents itself to our transatlantic friends.

Tertiary Syphilis (third series); the Growth, Progress, and Present State of Knowledge of Nervous Syphilitic Diseases. By Thomas Reade, M.B., etc., Belfast. Dublin: John Falconer. 1863.

*** This is a reprint from the *Dublin Quarterly Journal of Medical Science*, containing further details and references on this important subject.

Revista de Sanidad Militar Española y Extranjera. Num. 3 and 4. Madrid, 1864.

*** The former of these numbers contains a clinical review of the Hospitals of London, with details of a case of ligature of the axillary artery for subclavian aneurism by Mr. Canton.

The Cultivation of Medical Science and Art: an Oration delivered before the Members of the Hunterian Society on February 10, 1864. By John Jackson, M.R.C.S.E., etc. London. 1864.

*** A clear and sensible criticism of several current Medical theories printed at the request of the council of a practical and useful Society.

Montpellier Medical. Janvier—Fevrier, 1864. Montpellier: Boehm et Fils.

*** This excellent journal, from which we have already largely borrowed, retains its high character, and in interest exceeds some similar Metropolitan French productions. In the January Number, articles on Yellow and Typhoid Fever, on Viability, and on the Chemistry of Gouty Deposits; and in the February issue, a valuable memoir on the Health of Verdigris-makers, deserve attentive examination.

Systems of Admission at Hospitals: A Plea for Reform. Being a Selection from a Series of Articles reprinted (by permission) from the *Birmingham Daily Post*. With a Preface. Birmingham: Printed by B. Hall, 71, High-street. 1864. Price 3d.

*** Worth twenty times the money. This pamphlet ought to be circulated amongst all persons who have taken on themselves the responsibility of becoming members of the Committee or Governing Board of any Hospital. The writer pleads for a *free* system of admission, instead of a *privileged* system; in other words, that the benefits of the charity ought to go to the persons most deserving or requiring relief—not to those who are selected by subscribers. Common Hospitals are not charities. When a man has given a subscription to a charity, his property in it ceases; it belongs to the poor. But common Hospitals are joint-stock institutions, in which the subscriber retains his property in his subscription, and exacts the value of it, often very much more. Would that this clear logical paper were well read!

Medical Ethics and Etiquette: a Lecture delivered in Queen's College, Belfast. By John C. Ferguson, A.M., M.B. Belfast: A. Mayne. 1864.

*** A thoroughly high-minded and high-principled production. All the common circumstances under which Medical men can show good conduct or bad when brought into contact with the public or with each other are described and commented on as might be expected from a thorough Professional gentleman.

British Journal of Dental Science. January, 1864. London: John Churchill and Sons.

*** This monthly journal deals principally with matters of special interest to its professed readers. But in the Hospital case-book will be found facts of general interest. In the present Number, for instance, is a case of fractured lower jaw; one of tetanus, said to have resulted from operations on the teeth; one of hare-lip; and one of excision of the jaw for fibrous tumour of the antrum.

A Toxicological Chart; exhibiting at One View the Symptoms, Treatment, and Modes of Detecting the various Poisons, Mineral, Vegetable, and Animal. 12th Edition. Revised by W. Stowe, M.R.C.S.E. London: John Churchill and Sons. 1864.

*** A useful ornament for the Surgery wall. We marvel that the author did not mention ardent spirits, or ammonia in full doses, or both, in the treatment of snake bites.

A Dictionary of Chemistry and the Allied Branches of other Sciences. Founded on that of the late Dr. Ure. By Henry Watts, B.A., F.C.S. Part 13.—Glucose—Gytge. London: Longman, Green, Longman, Roberts, and Green. 1864.

Homes without Hands; being an Account of the Habitations constructed by various Animals. By the Rev. J. G. Wood, M.A., F.L.S., Author of the Illustrated Natural History. Part 3. London: Longman, Green, Longman, Roberts, and Green.

The Edinburgh Medical Journal. March, 1864. Edinburgh: Oliver and Boyd.

Observations on some New Remedies (made in the Edinburgh Royal Infirmary). By James Watson, M.D. Edin., L.R.C.S.E. Edinburgh: Oliver and Boyd. 1864.

A System of Surgery. By James Miller, F.R.S.E., F.R.C.S.E. Edinburgh: A. and C. Black. 1864. Pp. 884.

*** A fusion of the author's former works into one complete system.

An Elementary Text-book of the Microscope. By J. W. Griffith, M.D. F.L.S. London: J. Van Voorst. 1864.

The Stream of Life on our Globe: its Archives, Traditions, and Laws. By J. L. Milton, M.R.C.S. London: R. Hardwicke. 1864.

Advice to a Mother on the Management of her Offspring, and on the Treatment of some of their more urgent Diseases. By Pye Henry Chavasse, F.R.C.S. Seventh Edition. London: John Churchill and Sons. 1864.

The Edinburgh Veterinary Review. No. 47. March, 1864. Edinburgh: Maclachlan and Stewart.

The Englishwoman's Journal. No. 73. March, 1864. Published by the Englishwoman's Journal Company, 19, Langham-place, Regent-st., W.

British Journal of Dental Science. March, 1864. London: John Churchill and Sons.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 2, 1864.

BIRTHS.

Births of Boys, 1072; Girls, 1081; Total, 2153.
Average of 10 corresponding weeks, 1854-63, 1964·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	868	811	1679
Average of the ten years 1854-63	724·8	681·5	1406·3
Average corrected to increased population..	..	..	1547
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	..	4	7	1	16	11	2
North ..	618,210	1	8	10	1	14	11	3
Central ..	378,058	1	7	9	3	9	13	2
East ..	571,158	8	17	7	..	14	19	3
South ..	773,175	8	19	14	1	26	12	7
Total ..	2,803,989	13	55	47	6	79	66	17

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·439 in.
Mean temperature	41·0
Highest point of thermometer	54·4
Lowest point of thermometer	28·9
Mean dew-point temperature	33·3
General direction of wind	S.W. & N.W.
Whole amount of rain in the week	0·42 in.

APPOINTMENTS FOR THE WEEK.

April 9. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Dr. E. Frankland, "On the Metallic Elements."

11. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr. Salter, "On Tracheal Dysphagia."

12. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. John Campbell, Esq., LL.D., "On the Celtic Languages and Races." John Crawfurd, Esq., F.R.S., "On the Early Migrations of Man."

ROYAL INSTITUTION, 3 p.m. Professor Helmholtz, "On Conservation of Energy."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY (Ballot, 8 p.m.), 8½ p.m., Mr. Solly, "Cases of Intestinal Obstruction—Amussat's Operation." Dr. Morell Mackenzie, "On the Invention of the Laryngoscope by Dr. Benjamin Babington."

ST. MARY'S HOSPITAL MEDICAL SCHOOL, 8 p.m. Dr. Grailly Hewitt, "Clinical Conference in Midwifery."

13. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m., Middlesex, 1 p.m.; London, 2 p.m.

14. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m., Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Professor Helmholtz, "On Conservation of Energy."

15. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 8 p.m. Professor Abel, "On Gun-cotton."

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DINNEFORD AND CO., PHARMACEUTICAL CHEMISTS,

Beg respectfully to inform the Medical Profession that they are now Dispensing Physicians' Prescriptions with the

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CHLORODYNE CHANCERY SUIT.

JANUARY 11th, 1864.

BROWNE AND DAVENPORT versus FREEMAN.

"It was fully proved and established in Court, before Vice-Chancellor Sir W. P. Wood, that Dr. John Collis Browne was the Discoverer of Chlorodyne.

"The Vice-Chancellor observed that Dr. J. Collis Browne's Chlorodyne was known before the Defendant 'Freeman' had ever thought of using the word; that the Defendant's conduct led to a very strong suspicion that there was a gradual course of proceeding on his part to mislead people into the belief that, when they bought his medicine, they were purchasing Dr. J. Collis Browne's Chlorodyne; and that, if the Plaintiffs could show that any one had actually been deceived, an Injunction would be granted."—*Times*, January 12.

Affidavits from eminent Physicians and Surgeons of the Metropolitan Hospitals proved, beyond doubt, that Dr. J. Collis Browne was the discoverer of Chlorodyne; that they prescribe it largely, and invariably mean the original Chlorodyne of Dr. J. Collis Browne.

An Affidavit by Mr. Warington, Chemical Operator to the Apothecaries' Company of London, also established the fact, that Dr. Browne was the inventor of Chlorodyne; that the Company receive large orders for the supply of Chlorodyne for the Public Service, Hospitals, Merchants, and the Profession; and that, when Chlorodyne is ordered, they invariably supply Dr. J. C. Browne's.

Affidavits from Messrs. John Bell, Pharmaceutical Chemists, 338, Oxford-street, and several leading Wholesale Druggists of London, to the same effect, and that, when Chlorodyne is ordered, they invariably supply Dr. J. Collis Browne's.

Sole Manufacturer—J. T. DAVENPORT, 33, Great Russell-street, Bloomsbury, London.

In Bottles, 1 oz, 3s.; 2 oz., 5s.; 4 oz., 8s.; 10 oz., 15s.

Neither Physician nor Surgeon in plaintiff's suit even mentioned Freeman's compound; so much for the *truth* of its being the *preferred* medicine, as stated by the defendant. It is equally untrue that the Vice-Chancellor intimated in the slightest degree that the defendant had the right to the sole use of the prefix Original, as quoted in his advertisement in the "Pharmaceutical Journal," March 1, 1864.

The observations of the Vice-Chancellor, as reported in the "Times," speak for themselves.

Each Affidavit from Physicians, Surgeons, and Chemists affirms that Dr. Browne's Chlorodyne was known to them in 1855; whereas the Defendant "Freeman's" Compound was not heard of until 1859, after the Original Chlorodyne had obtained world-wide fame.

TOWLE'S CHLORODYNE.

OF KNOWN COMPOSITION.

For Formula, &c., see back Numbers.

Extract of Letter from Dr. C. KIDD (Author of Standard Works on Chloroform).—"SIR,— . . . Of the value of Chloroform given internally I have no doubt; it appears to me in that form an anodyne, *sui generis*, that no other anodyne can approach. I have resolutely opposed the use of *secret* compounds of chloroform, and in every way I can encourage the use of the 'Chlorodyne' (if we must have it at all) that is made by you, as you state that its composition is known. Many Medical men think with me, and recommend your compound, but will never prescribe a secret remedy.—CHAS. KIDD, M.D.—Sackville-street, Piccadilly, London, April, 1862.—To Mr A. P. Towle."

Extract of Letter from ALFRED ASPLAND, Esq., F.R.C.S. Eng., J. P. Chester and Lancaster, Surgeon 4th Cheshire Batt. V.R., Surgeon to the Ashton Infirmary.—"After an extensive trial of your Chlorodyne in Hospital, Infirmary, and Private Practice, I am able to state that it is a valuable medicine. I have found its action peculiarly serviceable in Bronchial, Spasmodic, and Neuralgic Affections. I have never found it produce headache or feverish disturbance, results which not unfrequently occur from other forms of Chlorodyne. As a sedative to allay excitement arising from the abuse of intoxicating drinks, so commonly witnessed in our Barrack Hospital, I have been perfectly satisfied with it. Its known composition will doubtless prove an additional recommendation to the Profession.—To Mr. A. P. Towle."

Sold by Wholesale Houses in bottles, 1 oz., 1s. 6d.; 2 oz., 2s. 6d.; 4 oz., 4s.; and 8 oz., 8s.

SOLE MANUFACTURER—A. P. TOWLE, CHEMIST, &c., 99, STOCKPORT-ROAD, MANCHESTER.

LIQ. CHLOROFORMI CO. (TOWLE'S).

This preparation is identical with "Towle's Chlorodyne," *sine* Ol. Menth. Pip. (dose 5 to 20 minims, as in Chlorodyne).

The Proprietor having for some time past, at the request of several members of the Medical Profession, made a preparation of Chlorodyne without peppermint, has lately, on account of the frequency of these demands, prepared the same for more general use, under the designation of LIQUOR CHLOROFORMI CO., which, possessing the Medical properties of Chlorodyne, may be prescribed in all cases where the Ol. Menth. Pip. is disapproved, and overcome the objection so generally felt to the use of the term "Chlorodyne."

May be obtained, as an introduction, from the following Wholesale Houses, in 2 and 4 oz. bottles, at 2s. 6d. and 4s. each:—London: Barclay and Sons, 95, Farringdon-street. Birmingham: Southall, Son, and Dymond. Liverpool: Clay, Dod, and Case. Edinburgh: Duncan, Flockhart, and Co. Glasgow: The Apothecaries' Company. Dublin: Bewley, Hamilton, and Co. Manchester: Jas. Woolley; and the

Proprietor—A. P. TOWLE, 99, STOCKPORT-ROAD, MANCHESTER.

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ORIGINAL LECTURES.

LECTURES
ON THE CONSERVATION OF ENERGY.

By Professor HELMHOLTZ.

DELIVERED AT
The Royal Institution
ON APRIL 7, 1864.

LECTURE II.

LADIES AND GENTLEMEN,—In my first Lecture I tried to explain the views which have been developed during the last twenty years by physical researches concerning the general characteristic nature of the physical forces. We have seen that all the natural forces are of such a kind that, when they produce any change or any alteration, when they produce motion, their faculty of acting is destroyed by their action itself, that they cannot act without diminishing or losing the faculty of new action. We have seen that in these cases, if one of the natural forces in this way loses its energy, other forces regain a certain amount of energy; that they are brought into new conditions where they are able to act, and that amount of energy, which is lost on one side, is gained on the other side; so that the whole quantity of energy, the whole sum taken altogether, remains the same; that the energy alters only in its form, and is brought into a new aspect; but that it is neither lost nor increased in any change throughout the whole of inorganic nature. We infer from this that it is impossible to gain energy for our own purposes, for our machines, without taking it from the great store of energy which is contained in the universe; and we infer from the same statements, that it is impossible that energy should be destroyed; that this store of energy which is contained in the universe must remain the same through all eternity, as long as the natural laws which we know at present are valid; and that, therefore, motion and the faculty to produce new motion cannot be lost; that motion and activity in the universe must be everlasting, but they may be lost for single parts of the universe, for single celestial bodies, but then their equivalents must be found in other parts of the universe. Now, the energy which we want to have for our own purposes, and the energy which is working on the surface of our earth, must be taken from the great store of energy contained in the universe; and if we are willing to look into the origin of all these kinds of energy, we must look to this great store, and, therefore, we must look at first to the energy which is stored up in the celestial bodies. We have already seen that our water-mills must be driven by water coming from the mountains. It is lifted to the mountains by the heat of the sun, which vaporises the water of the ocean. We have seen that our steam-engines must be kept going by the use of fuel, and this fuel is either the result of present vegetation, or it has been produced a long time ago by vegetation, the remains of which are deposited in the layers of coal. All the motion of an animal body can only be kept up by the use of food. Food is taken either from animals which eat plants, or it is taken immediately from the vegetable kingdom, and, therefore, it can be produced only by the action of solar rays, which are a necessary condition for the growing of plants.

You see, therefore, that all these kinds of motion have their last origin in the rays of the sun; and, therefore, to go back to the origin of all the energy which is working on the earth, we must go back into the spaces of the universe and look to the stores of energy contained in the sun and planets. We have, at first, the motion of the planets; that is a store of mechanical power. The planets move around the sun under the influence and attraction of the force of gravitation which acts between the sun and the planets, and under the influence of the original velocity which is given to the planets, and by which they are moving in a circular way. To explain these conditions, I have here a sphere which represents the sun, and here a smaller sphere fastened on a thread; and you see this sphere, if I draw it away for a short distance, is attracted to the centre of the sun. It is not attracted by the sphere, but it is attracted, at least, to it; and to whatever place I may bring it, it falls down to the sphere when I let it go. You see, then, there is a force attracting this little sphere to the centre of the great sphere. If I impart a tangential velocity to this little sphere, it goes round the greater sphere in the same way, under the action of similar forces, as planets go round the sun; and it will go on a long time in a circular movement. You see, to bring it into this sort of motion, I am obliged to draw it from the greater sphere against the force which strives to move it to the centre of the greater sphere; therefore, we want at first an amount of energy capable of removing the smaller sphere against the attraction of the greater sphere. Then I will give to the smaller sphere a certain velocity, the effect of which is that the smaller sphere cannot fall down upon the greater sphere. It is now going on by tangential velocity in a circle. In this way the little sphere can keep its energy a-long time. Its energy is destroyed at last by the resistance of the air, a resistance exerted as well to the sphere itself as to the motion of the thread by which the little sphere is fastened; so you will see the little sphere comes nearer and nearer to the central body in proportion as it loses its energy. Planets moving through the interplanetary space, which can be considered very nearly as vacuum, where no resistance is ever offered to their motion, go on for ever and ever without any retardation of their motion; and you see, that if the motion of the planets is of such a kind, that after every rotation they return to the same place, nothing is lost of their energy. They keep their energy as long as they are going in this way round the sun, and as long as their distance from the sun is not diminished. Astronomical observations, as far as their accuracy reaches at present, show that the motion of the planets, indeed, is not diminished in any sensible degree by the continuance of their motion; but that they go on at the same distance from the sun and with the same velocity, and go round the sun in the same time as they have gone through so many centuries during which they have been observed by men. If any amount of energy of this mechanical power, which drives the planets onwards, should be lost, the planets would approach to the sun and at last fall into it. This is the first part of the energy contained in the solar system, and we shall speak afterwards of the possibility that this energy may be lost and changed into another form. Then we have another great store of energy contained in the heat of the sun. The sun gives out continuously rays of heat and rays of light, which radiate through space to our earth and other planets; and those of them which are not retained by meeting a solid body, a planet, go on and on into the vast spaces of the universe. The quantity of heat which is given out by the sun is really enormous. We shall see hereafter how great this quantity is. Now, the opinions about the nature of the sun have been very much altered under the influence of our knowledge of the law of conservation of energy; and therefore I am obliged to give a more especial description of our notions about the nature of the sun. You know that by astronomical observations we have found out that the sun is a sphere of very great diameter and very great volume. Its diameter is nearly 900,000 English miles, and its distance from the earth nearly 95,000,000 miles. Its diameter is so great that if you suppose the earth to be put into the centre of the sun, the sun itself being like a hollow sphere, and the moon going about the earth, there would be a space of more than 200,000 miles around the orbit of the moon lying all interior to the surface of the sun. Therefore we have there an immense mass and volume; and corresponding to this great mass, also the attraction of heavy masses to the centre of the sun is very great. The force of gravity on the surface of the sun must be nearly twenty-eight times greater than the same force on the surface of our earth. But in spite of this enormous increase of the force of gravity, which strives to draw the matter of the sun to its centre, the density of the sun is very small: it is not much greater than the density of water, and it is only a quarter of the density of the earth, although, as we shall see immediately, it is very probable that the sun is composed of the same substances as the earth. There must be a cause that so enormous a body as the sun can remain in such a small degree of density in spite of the attractions to the centre of the sun; and I think we must find this cause in the enormous temperature of the sun. As for the outside of the sun, we find that it is of a brilliant luminosity, and when we look at it through blacked plates of glass, we see that it is not quite of an equal aspect, but that it has a more mottled appearance, and that there are darker spots on its surface—the so-called solar spots. I will show you a beautiful photograph of the solar spots made by Mr. Warren de la Rue, projected by the electric light on a screen. These spots commonly show a dark nucleus surrounded by a half dark area. [The photograph was exhibited.] The spots move round the surface of the sun, and it is only by this motion that we have been able

to perceive the motion of the sun. The time of his rotation has been determined by observations made on the time which the spots require to go around the sun. The spots are not quite steady on the sun; they have their own motion along the surface. This is proved principally by the fact, that when we strive to determine the time of the rotation of the sun by observations made with different spots, one finds the times lying between twenty-three and twenty-five days; and a German observer—Mr. Spöhrer—has found that those spots which are near the equator of the sun go more swiftly round the sun than those which are more distant from the equator. This shows a very great velocity along the surface of the sun. There must be spots which go on with the velocity of nearly one English mile in a second; a velocity three or four times greater than the bullet of the heaviest Armstrong guns. You see by this that very great motions and distortions must take place along the surface of the sun. The spots are continually changing. Formerly a comparison of the different shapes of these spots was only possible by means of drawings made by the hand, so that one could not get so accurate a comparison; but at present we have a great number of photographs of the solar spots, and you can see by comparing photographs of the same spot made on two successive days very great alterations in its shape. Sometimes there are spots which go round the sun five or six times before they vanish, and new spots come as old ones disappear. There is a continual alteration.

Besides these spots there are other very singular appearances along the surface of the sun, which can only be seen during a solar eclipse, because the luminosity of the sun is so very intense that it is impossible to see the less illuminated parts which are near the surface, and it is only when the direct light of the body of the sun is removed by a screen which must be exterior to our own atmosphere, like the moon in an eclipse,—it is only when our eyes are sheltered against the luminosity of the sun, that we are able to see those curious protuberances, sometimes in the shape of mountains, sometimes in the shape of clouds of very different forms, which are near to the surface of the sun. I can show you some of these protuberances by some very beautiful photographs taken by Mr. Warren De la Rue on the occasion of the last eclipse of the sun in Spain.

In the first photograph you see a large luminous margin; in the other you observe the protuberances on one side; and then, in a later stage of the eclipse, you have them appearing on the other side. You observe that the dark body of the sun is surrounded by a sort of halo, the so-called corona, which shows that there are illuminated transparent parts. There is a sort of atmosphere which projects to greater distances even than the protuberances. I can show you also a very nice imitation of this corona made artificially by Mr. Ladd. Formerly it was considered doubtful if these protuberances belonged really to the sun, and if there were not some optical phenomena produced by the margin of the moon. It is only by these beautiful photographs that these protuberances are proved to belong really to the sun, because they move quite in the same way as the sun, and they remain quiet or in repose relatively to the centre of the sun during the time when the moon is passing before the surface of the sun. You see by these phenomena that there is a very great atmosphere round the sun, subject to extremely violent disturbances. The movements of these solar spots, and the always-changing appearances of the protuberances—for they show a new aspect at every new eclipse of the sun—indicate that there are very violent motions along the surface of the sun, and that there is an atmosphere of immense height and density surrounding it. These protuberances which you have seen in the photograph extend to the height of 50,000 miles—more than six times the diameter of the earth; and the solar spots are some of them so great that their diameter is nearly ten times that of the earth. These phenomena, then, exist on a very extended scale, and their dimensions are extremely great when compared with the dimensions of our earth.

Lately we have had a series of new facts and new evidences concerning even the chemical nature of the atmosphere of the sun and the nature of solar light—evidences which are of great importance for our present purpose. They are given principally by the researches of my colleagues Professors Bunsen and Kirchhoff, who have shown that by analysing the spectrum of the solar light one can inquire into the chemical composition of the solar atmosphere. In order to explain this, I must refer to some of the statements which my colleagues have made, and the results they have obtained concerning the nature of luminous spectra. You know that the light of glowing bodies is composed of different kinds of light. It was first shown by Newton that the white light of the sun is not simple. Now, we will use on this occasion the light of glowing carbon. You have here a projection on the screen of two charcoal points which are glowing in the electric lamp, and you observe between the two points an interval, which is occupied by gas, by air, and by vapours given out by the charcoal points themselves. You have here two solid bodies glowing with a very intense white heat; and there is a stratum of glowing gas through which the electric current passes. The further we remove the points from each other the greater becomes this stratum of gas. By removing the charcoal points, you see the light of the gas; by keeping them together you get the spectrum and the light of the glowing solid bodies. By passing the light of the charcoal points through two prisms, it is deflected from its first direction into another, and the angle through which it is deflected depends upon the refrangibility of the light in the substance of the prism. The refrangibility of the light is different in the different rays, which are distinguished by their colour, by their wave-length, and so on. Thus we get these different kinds of light separated from each other; and instead of having, as in the first image, a representation of the charcoal points themselves, we get a long surface covered with light; and you see how the different rays are separated. I beg you to remark that this is a continuously illuminated surface, presenting no dark lines. We must infer from this experiment that glowing solid bodies like these charcoal points give out all kinds of rays, which are visible from the extreme red to the extreme violet. There is no interruption of the series of rays. You have every variety of wave-length lying between the wave-length of the extreme red and that of the extreme violet. Now, if we take the spectrum, not of the solid body, but of the glowing gas, the aspect is quite changed. We will project on the screen the light of the glowing charcoal points, between which a small quantity of felspar is placed. Felspar contains several chemical elements—alumina, silica, and soda, which is the most volatile of these bodies. We have here between the coal points a stratum of glowing gas, containing principally volatile substances, as well of our own atmosphere as of the felspar, and among these sodium is the most abundant. Now, you observe the result is not a continuously illuminated surface, but that there are several bright lines, and among these is a golden yellow line, which is produced by the sodium, and which can also be produced by other chemical combinations containing sodium. There are other bright lines given by the other substances contained in the coal and the felspar. From this we conclude that the glowing gases give out only some definite kinds of coloured light, and not all kinds—not a continuous series of different wave-lengths. I will now show you another gas spectrum—that of silver and brass. Here you will see the same appearance—viz., that the spectrum is composed of several bright lines separated from each other, or only connected by a feeble intensity of light depending upon the glowing points.

Now, if we inquire what is the spectrum of the sun, we find an illuminated surface which is traversed by a great number of dark lines. I have here some sketches of the spectra given out by the sun, and by several other fixed stars. You observe that they are continuous spectra, only crossed by dark lines; and you see that these dark lines are different in the light of different fixed stars, and that there are some stars, particularly those which are distinguished by their white light, which have no dark lines at all. This is important, principally because it proves that the dark lines do not depend on our terrestrial atmosphere, but that they belong to the fixed stars themselves.

If we ask in what way can such spectra be produced, the experiments of Kirchhoff and Bunsen give a very complete explanation. Professor Kirchhoff has shown that those glowing gases, which give spectra composed of separated bright lines, have the power of absorbing the same light which they give out; the other light which they do not give out themselves goes through them without being absorbed, quite freely and without loss. The rays which the gases themselves give out are absorbed; therefore when the light of a very intensely heated glowing body goes through a stratum of vapour, we get a spectrum in which we find dark lines in the same places where the glowing gas gave bright lines. You have seen that the spectrum given by silver and brass was quite different from that which was given by the felspar—indeed, every single chemical element has its peculiar spectrum; and observing either the bright lines of the glowing gas spectrum, or the dark

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lines of the spectrum of a glowing solid body the light of which is brought through a glowing stratum of gas, we are able to determine to which chemical element the dark or the bright lines belong. By means of these experiments Bunsen has been able to discover two new elements, Rubidium and Cæsium; and since then Thallium and Indium have been discovered by other observers,—elements contained in our minerals only in excessively small quantities. It is possible also in this way to determine the elements which produce the dark rays in the solar spectrum. I have shown you a rough sketch of the solar spectrum; and I have here another drawing which represents, on a larger scale, the small distance between two of the lines in the first sketch. By these drawings you can obtain an idea of the extremely large number of these dark lines contained in the solar stratum. We will try to get one such dark line by vapours of sodium. (Experiment.) We have now the spectrum of the glowing charcoals, and in this lamp before the electric lamp a small quantity of sodium will be heated. You see at present the continuous, uninterrupted spectrum of the glowing charcoal points. The light of the electric lamp passes through the flame containing the vapour of sodium, and you will see a dark line where before you saw the golden yellow, the bright light of the sodium. You now see the same golden yellow reflected from all parts of the lamp, because the sodium gives a great quantity of this yellow light —the same golden yellow which is here absorbed. Now, we see the same dark line in the solar spectrum, and we must infer from this that the light of the body of the sun has passed through a stratum of vapours containing sodium, so that the golden yellow has been absorbed. In this way it has been possible to ascertain a great number of chemical elements contained in the atmosphere of the sun. The greatest number of the dark lines of the solar spectrum agree with the lines which are given by the spectrum of iron. More than seventy lines of the solar spectrum are lines of iron, so that there must be an abundant quantity of iron in the form of vapour or gas in the atmosphere of the sun. Other dark lines of the solar spectrum belong to other elements, which we know as parts of our terrestrial minerals. Thus there are lines of calcium, magnesium, copper, zinc, soda, and others. Other elements like gold, mercury, antimony, arsenic, and so on, are wanting; their dark lines are not to be found. I can give you a projection of some of the drawings of Kirchhoff. I will pass them quickly before the lamp, and you will see the excessively great number of lines which are contained in the solar spectrum. (The drawings were exhibited.)

We conclude from these observations, first, that the light of the sun is the light of a solid or fluid body going through an atmosphere containing different gases; secondly, that this atmosphere contains iron, magnesium, calcium, and several other chemical elements, which can be vaporised only by the most intense heat that we can obtain by terrestrial means. Iron is one of the least volatile substances of our earth. It can be vaporised, indeed, by some processes which give a very intense heat. Substances containing iron are vaporised in the interior of volcanoes, and are deposited near the mouth of their abysses; and the lines of iron are seen in the light of the heated gases which have passed through the fluid iron in the Bessemer process, as observed by Professor Roscoe of Manchester. Magnesia is also a very refractory substance. It is commonly used as a sort of crucible in chemical experiments, because it cannot be volatised in the least degree by our flames. You see, then, that these substances are contained as vapours in the atmosphere of the sun.

Now, it can be proved further that the temperature of the solid body which gives the spectrum must be excessively high, when compared with the temperature of the stratum of gas which gives the dark lines, because the gas itself gives out light. You have seen the spectrum of the sodium which was a golden yellow line; and this yellow line can only be changed into a dark line, when the light of the solid body is so much more intense than the light of the vapours of sodium that these vapours appear dark when compared with the intense light of the charcoal points. This is a law which can be proved mathematically; and it has been proved by Kirchhoff. The temperature of the solid body which gives out the light must always be much higher than the temperature of the gas. Therefore, we infer from these facts that the atmosphere of the sun is at so high a temperature that iron, magnesium, and calcium are contained as vapours in it; that the temperature of the solid or fluid substance of the body of the sun is far higher, otherwise we could have no dark lines in the solar spectrum; so that the temperature of the sun must be much higher than any temperature we can obtain by our terrestrial means. When I say that the spectrum of the sun must be that of a fluid or solid body, it is not necessary to conclude from this that it is the continuous body of the sun which gives out the light; it may also be given out by little particles swimming in the atmosphere like a sort of fog. Our fog is composed of particles of water; smoke is composed of particles of coal swimming about the air; such little glowing particles give the same spectrum as solid masses of the same substance; therefore, this spectrum of the solid or fluid substances of the sun may be a spectrum of glowing fog, and not necessarily of the body of the sun itself. You see that these conclusions are very different from the ideas which have been formerly entertained with regard to the nature of the sun. Those ideas were founded principally upon the observations of the solar spots—first, by Wilson and afterwards by Sir William Herschel. They found that the solar spots, when they came near the margin of the sun, changed their aspect in such a way that the observers were obliged to conclude that the dark central spot was in a lower level than the area of the spot, and that the spot must be of an infundibuliform shape—that it is an excavation in another luminous substance. The conclusion drawn from these facts was, that there existed an outer layer of glowing substance called the photosphere, which gives the light; that the body of the sun itself was dark, and that between the photosphere and the body existed a cloudy atmosphere, which gave a shadow to the body of the sun, so that it was not illuminated. Arago, who afterwards received the same hypothesis, gives even more especial descriptions of the probable nature of the sun. He supposes it possible that the body of the sun is not of a very high temperature, that even the photosphere may be compared with a sort of aurora borealis, giving out light, without being itself very much heated. Now, you see these new facts about the nature of the sun show that along the surface of the sun must be a temperature much surpassing all the temperatures we can obtain by terrestrial means. It is not possible that any body which is surrounded everywhere by a covering of uniform temperature, and which has no interior means of cooling, can remain a long time in a different temperature from that of its covering; and since the whole atmosphere surrounding the sun is of so intense a degree of heat, we must conclude that the body of the sun also is at least of the same temperature—it may be higher.

Professor Kirchhoff has given a new explanation of the solar spots. He supposes that a smaller dense cloud is situated immediately above the surface of the sun, and another stratum of clouds, less dense, at a greater height. This hypothesis would not quite agree with the descriptions of astronomers as to the change of form of the solar spots when they come near the margin of the sun; and I, therefore, propose another explanation, which I have roughly represented in a diagram. You see represented the body of the sun heated intensely to a white heat. I suppose that in the interior of the sun are contained different mixtures of chemical elements, some of them more volatile than others. From the heated surface, vapours will arise; and we are justified in assuming that even vapours of iron and magnesium and such substances are rising from the surface of the sun. These vapours may be condensed, may be changed into the form of a glowing fog, by the cooling along the surface. The yellow stratum represents such a fog, composed, perhaps, of glowing particles of iron, magnesium, calcium, and so on. Now, suppose there are less volatile substances, say water, coming up from the interior of the sun to the surface; they will be changed into vapours very quickly, will boil and give out a great quantity of vapours which separate the glowing fog. By the boiling and the swift evaporation, this portion of fluid will be cooled. I have represented it here as red, to show that it is only a red heat, and not a white heat. The vapours of water will remain in a state of transparent vapours in this intensely-heated atmosphere; and, therefore, we have here a transparent excavation filled with vapours of water, then a cooler part of the surface of the sun, and at the sides of the excavation the glowing fog of iron and magnesium will meet with the vapours of water which are cool, and the fog also will be cooled. You see in the diagram a relatively dark space, and such an excavation, the walls of which are also darkened by cooling; and you see the glowing fog which covers the whole surface of the sun. I propose this explanation only to show that the theory according to which the sun is an intensely-heated body can be brought into agreement with astronomical observations; and I think this is a sufficient explanation, based

on rather simple suppositions, concerning the nature of solar substances. We must now go into further investigation as to the quantity of solar heat and the quantity of energy which is diffused by the sun into the surrounding spaces; and that will be the task of my next lecture.

COURSE OF

LECTURES ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D.,
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Lecture III.

Gentlemen,—We have now to consider the constituents of the urine individually, and we shall begin with that substance which, in consequence of its occurring in greatest quantity, is looked upon as the most important ingredient of the human urine.

Urea.—($C_2H_4N_2O_2$). Atomic equivalent = 60.

Urea is to be found in the urine of all animals, but exists in greatest quantity in that of the mammalia. It never occurs as a urinary deposit, in consequence of its great solubility in water, being, in fact, deliquescent.

Before entering upon the physiological, and pathological relations of urea, it will be necessary for me first to say a few words regarding its appearance and properties.

The urea of commerce is a white, semi-transparent, crystalline body, (b) with a bitter taste. When heated it melts, burns, and gives off ammonia. It is soluble in alcohol, as well as in water, but nearly insoluble in ether. It is readily decomposed by strong mineral acids, and by hydrated alkalies. With chlorine it yields carbonic, and hydrochloric acids. Nitrogen gas being at the same time set free. In contact with animal ferments urea takes up two equivalents of water, and is converted into two parts of carbonate of ammonia.

$$C_2H_4N_2O_2 + 2HO = 2(CO_2NH_3).$$

Hence the peculiar ammoniacal odour of putrid urine.

Urea readily combines with nitric acid to form the most important of its salts:—

The Nitrate of Urea ($UrNO_3HO$), which forms, when rapidly crystallised, flat, shining, rhomboidal plates; when slowly crystallised, fine prisms. It is very soluble in both water and alcohol, but only sparingly soluble when they contain an excess of free nitric acid.

We have here three specimens of urine—man's, horse's, and dog's—representing the three subdivisions of the animal kingdom into omnivora, herbivora, and carnivora; the first two urines have been concentrated to about half their normal bulk, the third is left in its natural state, it being by far the richest in urea. To each I now add equal parts of strong nitric acid, when instantly you perceive they begin to crystallise, and before many minutes elapse each of the liquids will have become one compact mass of shining crystals; I shall be able to invert the glasses without danger of spilling their contents. You observe the crystals are coloured. Those from the dog's urine only slightly, those from the horse's very deeply. This is not owing to the nitrate of urea being a coloured salt, but simply because it happens to be deposited in a coloured liquid, part of the colouring matter of which has united with it; just as sugar—a white substance—when crystallised in a solution of carmine, yields red crystals. The higher coloured the urine, therefore, the deeper coloured the crystals; the paler the urine the whiter the crystals.

With oxalic acid urea forms an oxalate (UrC_2O_3HO) which crystallises in prisms and quadrilateal tables (Fig. 7), sometimes separate, sometimes adhering together in groups. This salt is freely soluble in hot, but sparingly soluble in cold, water. Hence it is that we occasionally, though very rarely, detect crystals of oxalate of urea in concentrated human urine.

Physiological Relations of Urea.

Urea was first discovered in human urine, and it was for a long time thought to be one of the special products of the animal world. Modern chemistry having, however, succeeded in preparing it artificially from a variety of substances, among which may be mentioned the cyanates of lead and silver; together with the fact of its being also formed by the union of cyanic acid and ammonia—

$$\overbrace{C_2NO,HO}^{\text{Cyanic acid.}} + \overbrace{NH_3}^{\text{Ammonia.}} = \overbrace{C_2H_4N_2O_2}^{\text{Urea.}}$$

many persons are inclined to regard it as merely the cyanate of ammonia.

Fig. 7.

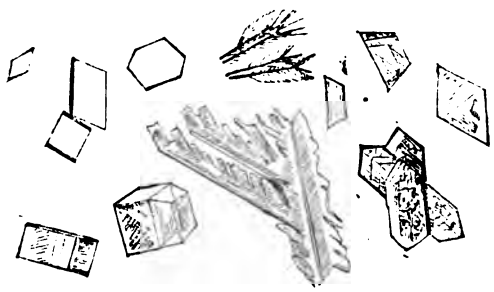

Fig. 7.—Crystals of oxalate of urea from human urine.

Urea, though found in the urine, is not formed in the kidneys, but only excreted by them from the blood, where it has been detected by Garrod, myself, and others. Picard found 0·016 per cent. in normal human blood, and on one occasion I found as much as 0·320 per cent. In the defibrinated blood of a sheep I found 0·559, and in that of the dog as much as 0·747 per cent. In a normal state the blood of the renal artery contains twice as much urea as that of the renal vein (Picard), but in cases of its retention, both vessels contain about an equal quantity. Wurtz obtained urea from the healthy chyle, and lymph of the ox, horse, and dog. It has been found in the humours of the human eye, and is one of the ordinary constituents of the amniotic fluid of all mammalia; but, as I said before, it owes its presence in the latter situation to the urine excreted by the fœtus while still in utero.

It has been asserted by some (Robin and Verdeil) that no urea is to be found in the urine of very young children; this, however, is an error, as I have detected urea in urine taken from the bladder of a still-born child, and in that of an infant aged 8 weeks I found as much as five grammes per thousand. In fact, from the subjoined table it will be seen that children actually excrete relatively more urea than adults; and males absolutely as well as relatively more than females, at all periods of life.

Sex and age.	Quantity of Urea in the 24 hours' Urine. Absolute amount. grammes.	grains.	Relative proportion per lb. of bodily wght. grmes.	grains.
Boy aged 18 mths.	8 to 12 =	124·0 to 186·0	0·40	6·2
Girl ,, ,,	6 to 9 =	93·0 to 139·5	0·35	5·4
Man aged 27	25 to 35 =	387·5 to 542·5	0·25	3·8
Woman ,,	20 to 30 =	310·0 to 465·0	0·20	3·1

In this table it will be seen that the amount of urea daily excreted is liable to considerable variations. Before attempting, therefore, to draw any conclusions from the changes observed in its amount during disease we must make ourselves thoroughly acquainted with the causes upon which the normal fluctuations depend, and in order to do this the more effectually we must first inquire into its normal source.

No urea has as yet been detected in any of the human solids, except what might readily be accounted for by the presence in them of blood. Its source seems to be two-fold; firstly, the disintegration of the tissues; and, secondly, the excess of nitrogenised food absorbed into the circulation.

The effect of food on the daily elimination of urea is well marked in the results obtained by Von Franque while experimenting on himself:—

Diet.	Urea. In 24 hours. grmes.	grains.	Per hour. grmes.	grains.	Per lb. of bodily weight. grmes.	grains.
Animal (3½ lbs. of flesh).	92 =	1416·0	3·86 =	59·8	0·53 =	8·2
Mixed	37 =	573·5	1·58 =	24·4	0·21 =	3·2
Vegetable	28 =	434·0	1·08 =	16·7	0·15 =	2·3
Non-nitrogenous	16 =	248·0	0·69 =	10·6	0·09 =	1·3

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

(b) The crystals are usually four-sided prisms, more rarely needle-shaped. The urea sold in the shops is prepared artificially, but it possesses the same characters as that obtained from human urine.

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It is here seen that on an animal a much greater quantity of urea is excreted than on a mixed diet, and least of all after non-nitrogenised food has been taken. These results are in accordance with those of all other observers, except that the total quantities are greater.

Some suppose that urea comes in no case directly from the excess of absorbed food, but only indirectly from that portion of it which has undergone metamorphosis in the tissues (Bischoff, Voit, Parkes). If such be in reality the case, it appears to me very extraordinary that when living on a purely animal diet a person should excrete a larger proportion of urea than when living on mixed food, the mixed being the most nourishing diet of the two. Again, if their views be correct, why is it that exercise, which is well known greatly to increase the metamorphosis of the tissues, is not found materially to affect the daily elimination of urea? Thus, Von Franque excreted in twenty-four hours :—

Diet and exercise.	Urea in 24 hours. grammes.	grains.	For every lb. of wght. grammes.	grains.
Mixed, with moderate exercise . . .	37·983	= 588·73	0·218	= 3·379
Mixed, with much exercise	37·877	= 587·09	0·217	= 3·363

Actually less urea after much exercise than he did on his ordinary average exercise. (c) On the other hand, Dr. Ed. Smith found that prisoners excrete 36 grains more of urea when at hard work than when doing nothing, which, he adds, is 19 grains above what they pass on light labour.

Again, we find that Bischoff in his experiments on dogs observed that they passed most urea when fed on eggs, muscle, and gelatinous substances, and that it increased in proportion to the quantity of food given. These facts all tend to the conclusion that a portion of the urea excreted by the kidneys comes from the excess of food, independent of the metamorphosis of tissue. That all the eliminated urea does not come from this source no one seeks to affirm, for there is abundant evidence against such a supposition. For example, starve an animal as you may the urea will never entirely disappear from the urine. It can only be reduced to a certain point and no further. Schmidt, Frerichs, Bischoff, and myself have observed this in dogs, and Lassaigne, Scherer, Von Franque, and others have made similar observations on the human urine. The last-named gentleman starved himself during forty hours, and still found 19·35 grammes (299·9 grains) of urea in his twenty-four hours' urine. On experimenting on the effects of tartrate of antimony as a slow poison, I found that the urine of dogs, reduced to perfect skeletons, contained such an amount of urea that it crystallised on the simple addition of nitric acid without any concentration whatever.

The amount of urea passed by an animal during starvation is greater, if he has been previously well fed, than if he has only received a sufficiency of food to prevent his losing weight (Bischoff), which fact probably accounts for Dr. Von Franque passing so much during the time he was without food.

Prout thought that the urea came chiefly from the gelatinous tissues, and Von Franque thinks it comes chiefly from the muscles, but neither of these tissues has been found to contain urea. It is true that Städeler and Frerichs found a considerable quantity of urea in the muscles of cartilaginous fishes; but that proves little, seeing that they detected it in almost all the organs. My idea is, that *urea is not the special product of any one particular tissue or organ, but the united product of all nitrogenised effete matter.* Bechamp and Picard assert that they have converted albumen and other azotised substances into urea by slow combustion with permanganate of potash, and although subsequent experimenters have not been equally successful, we must accept their statement as a fact until the contrary is proven.

Part of the urea may also be formed in the blood by the decomposition of uric acid. This is rendered highly probable, for two reasons—Firstly, Neubauer found on giving rabbits from two to three grammes (31 to 46½ grains) of uric acid with their food the quantity of urea excreted in the twenty-four hours was augmented from 2·1 to 4·2 grammes (32·5 to 65·1 grains); and, secondly, when uric acid is acted upon by permanganate of potash it is transformed into several substances, one of which is urea.

We have now to consider how the elimination of urea is influenced by other than animal foods. In the first place, water increases it. The more water we drink, *cæteris paribus*, the more urea we excrete, most probably for the reasons already given when speaking of the influence of water on the urinary solids. Common salt also produces an augmentation in the excretion of urea (Böcker, Bischoff). Coffee has an analogous effect. I found this to be very decidedly the case in one of my friends, Baron G., aged 57. The daily average of urea excreted by him was 17·28 grammes (267·84 grains), whereas after he had restricted himself to nothing but coffee (without milk or sugar) and dry bread during forty hours he passed 25·3 grammes (382·25 grains) of urea per twenty-four hours.

This diet had an equally striking effect on the amount of water eliminated. His usual average was 1290 cubic centimetres (41 ozs.), and on the day in question it rose to 1895 cubic centimetres (60 ozs.) per twenty-four hours. This result is contrary to the observations of Böcker and Hammond, who found, on taking an excess of coffee with their ordinary diet, that the daily excretion of urea diminished. But this probably arose from their taking the coffee in the usual way, sweetened with sugar, for there are certain foods which greatly diminish the elimination of urea, and among them sugar holds the foremost rank (Böcker, Bischoff, and Voit). Starch has also a marked effect in diminishing the amount of urea, and I believe that fat may be placed in the same category, for, notwithstanding the statements made to the contrary (Böcker and Bischoff), the results of Botkin's experiments on dogs are conclusive regarding the decided diminution of urea which takes place when fatty matters are added to the food. This opinion is further strengthened by the observations of Beneke, who found that cod-liver oil lessens the amount of urea passed by the human subject. In fact, my idea is, that all nitrogenised foods augment, and all non-nitrogenised foods diminish, the amount of urea eliminated by the kidneys. Even gelatine, the nitrogenised substance which of all others is supposed to possess the least nourishing properties, has a decided effect in increasing the daily excretion of urea.

I have entered thus fully into the physiology of urea in consequence of being aware that unless the influence of diet, age, and sex be borne in mind while studying its fluctuations during disease, our labours will be unattended with any practical benefit; while, on the other hand, if these factors are duly considered, we cannot fail to reap important advantage from the knowledge thus acquired, for just as we have seen that its amount in normal urine represents, to a certain extent, the wear and tear of the frame, and is consequently an index to the health of the individual, so also in disease it furnishes us with precisely similar and even more important data; for the amount of urea in the urine enables us not only to judge of the tissue consumption, and, through it, of the severity of the affection, but is at the same time a direct clue to treatment, showing us whether our remedies should be directed to the restraining or encouraging tissue metamorphosis.

(c) So contradictory are the results of different observers, that further experiments are necessary before the question can be settled; the observations, too, in order to be exact, must only be made on the urine during the time the exercise is being taken, and not over the whole twenty-four hours, as the effect of rest and sleep may counterbalance the result produced by the exercise. I am myself strongly inclined to the opinion that exercise increases the elimination of urea, but cannot venture positively to assert it in consequence of the contradictory evidence furnished us by so many observers. (Draper, Lehmann, Franque, Smith, Hammond, Ranke, etc.)

MEDICAL CHARITIES.—The following munificent sums have been left to the undermentioned Medical Institutions by Admiral Octavius Vernon Harcourt, of Swinton Park, Bedale, Yorkshire, who has made charitable bequests to the extent of £36,000. The will, which has just been proved in York, directs that the various sums be paid free of duty. The following metropolitan charities benefit to the extent of £1000 each—viz., St. Mary's Hospital, Paddington, St. George's Hospital, Hyde Park, the Cancer Hospital, Chelsea, the Charing Cross Hospital, and the Middlesex Hospital. Similar sums are also bequeathed by the late gallant admiral to the York County Hospital, the Leeds Infirmary, and the Idiot Asylum, Earlswood; making a total of £8000 to Medical charities alone.

GRANT OF ROYAL CHARTER TO THE SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN IN LONDON AND ITS VICINITY.—This Society, founded in 1788, and now giving, in half-yearly and other relief, about £2000 a-year, has, within the past week, received a Royal Charter of Incorporation, and has become the Society for Relief of Widows and Orphans of Medical Men, the name having been shortened a little. The anniversary dinner is on May 28 next, at the Albion Tavern, Aldersgate-street; the President, T. A. Stone, Esq., in the chair.

THE OPTICAL DEFECTS OF THE EYE.

A COURSE OF LECTURES DELIVERED DURING THE SUMMER OF 1862 AT THE

Surrey Ophthalmic Hospital,

By J. ZACHARIAH LAURENCE, F.R.C.S., M.B. Univ. Lond.,

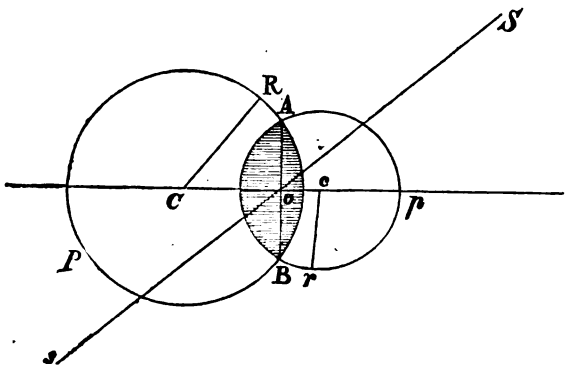
Surgeon to the Hospital.

PART I.—OPTICAL CONSIDERATIONS.

(Continued from page 361.)

We shall now proceed to the, for our purpose, most essential part of the subject—viz., to the consideration of the properties of optical lenses.

FIG. 5.



C, *c* = centres of curvature
CR, *cr* = radii of curvature
Cc = principal axis
AB = diameter
O = optic centre
Sos = a secondary axis
} of the lens *AB*.

The double-convex lens is represented in section *A*, Fig. 5. It is formed by the apposition of segments of two spheres. With the centre *C* and radius *CR*, describe the circle *CRP*, and with the centre *c* and radius *cr*, describe the circle *crp*; the part *AB*, common to both circles, represents the vertical section of a double-convex lens. *C*, *c* are the centres of curvature *CR*, *cr* radii of curvature of the lens. A line *Cc*, drawn through the two centres, is called the principal axis; the line *AB*, perpendicular to the axis, the diameter; the centre of this line *O* is the optic-centre of the lens respectively; whilst lines passing through *O*, as *Sos*, are secondary axes of the lens.

In the convex lenses in general use for spectacles, the radii of curvature of the two surfaces are equal. We then have a double equi-convex lens (*AB*, Fig. 6.)

FIG. 6.

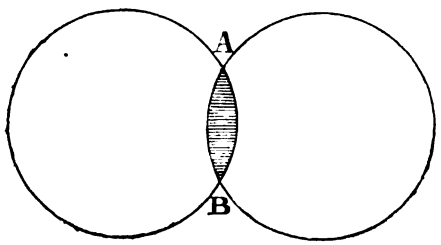


FIG. 7.

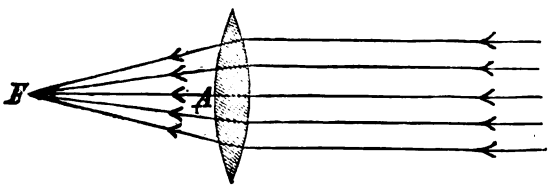
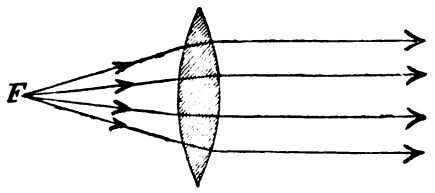


FIG. 7.—*FA* = principal focal length, in an equi-convex glass lens equals the radius of curvature.

Parallel rays (*i.e.*, as I have before mentioned, such as emanate from luminous objects at a distance from the lens—practically, I find experimentally that for a lens of about an inch and a-half diameter, this distance is anything beyond four feet) entering one surface of the lens, are found, on their exit from the second surface, to have converged to a point at a fixed determinate distance from the lens.

This point *F* (Fig. 7) is the *focus* of parallel rays—the *principal focus* of the lens, or, briefly, the focus of the lens. The distance of this point from the contiguous surface (strictly speaking, from the optic centre) of the lens, *FA*, is the *principal focal length* of the lens, or, briefly, the *focal length* of the lens. This, in the case of an equi-convex glass lens, equals the radius of curvature. Thus we speak of convex lenses of 2, 3, 5, 8, etc., inches focal length, or, as they are commonly termed, 2-inch, 3-inch, 5-inch, 8-inch, etc., convex lenses—meaning thereby that such lenses have the property of converging parallel rays to a focus, uniting them to a point, at distances from the lenses of 2, 3, 5, 8 inches respectively.(d) To make a practical application of our knowledge:—A person comes to you with a pair of convex glasses, but he has forgotten their focal length, and you wish to find this out; all you have to do is to see at what distance the image of any distant object (such as of objects in the street, of the sun, etc.) is formed most distinctly on a sheet of paper. Measure the distance of the lens from the image, and you at once have the required information.

FIG. 8.



Vice versâ: rays of light which diverge from a point F (Fig. 8), situate at the focal length of the lens, issue from the other side in a state of parallelism. Many light-house lanterns are constructed on this principle, the light being placed at the focus of a convex lens.(e)

I must here mention a well-known property of convex lenses, which is necessary to the right understanding of what follows. If an object be placed behind a convex lens at a less distance than its focal length, an erect magnified image of the object is perceived by an eye placed in front of the lens. Now, the shorter the focal length of the lens, the greater its magnifying power—*e.g.*, a 2-inch lens magnifies more than a 4-inch lens. In reference to their respective magnifying powers, then we should be wrong in designating the first lens as 2, the second as 4, which would imply the second were "stronger" than the first; but the more correct nomenclature is to call the first lens a $\frac{1}{2}$, the second a $\frac{1}{4}$, the latter fraction being less than the former. In further illustration, therefore, of the "powers" of lenses by fractions you see that, *e.g.*, a lens of $\frac{1}{12}$ is one that unites parallel rays to a focus at a distance of twelve inches from its surface, a lens of $\frac{1}{24}$ at a distance of twenty-four inches, and so forth; and, moreover, to use the vernacular expression, that the $\frac{1}{24}$th lens is, in regard to its magnifying power, not so "strong" as the $\frac{1}{12}$th lens.

Designating, then, in this way convex lenses by fractions, of which the numerators are 1, and the denominators the focal lengths of the lenses, let me announce to you a most important proposition, that the optical effect of a combination of lenses in contact, both as regards the power of magnifying, and as regards the distance at which parallel rays impinging on the first lens are brought to a focus by the combination of lenses, is always given by adding the several fractions, which express their respective powers, together. The resultant fraction represents the power of the single lens, which is optically equivalent to the whole set. Thus, suppose we wish to know the focal length of the combination of an 8-inch and of a 5-inch convex lens, placed together, we have, $\frac{1}{8} + \frac{1}{5} = \frac{1}{3}$

(d) I strongly recommend all persons who wish thoroughly to understand the subject of these lectures, to actually perform themselves all the experiments which are adduced. A set of trial lenses, and a few stands to hold them, etc., constitute all the apparatus required.

(e) I may here call attention to an important fact—viz., that, in the German and French trial-lenses, the focal lengths are given in Paris inches, whereas English opticians give theirs in English inches. 12 English inches = about 11¼ Paris inches; so that, *e.g.*, if we find a patient requires a 22½-inch glass of the German trial-glasses (now in very general use amongst English oculists), we should order him a 24-inch English glass.

nearly. The equivalent single lens is a 3-inch lens. Parallel rays impinging on such a combination will be focussed at a distance of three inches.(f)

(To be continued.)

ORIGINAL COMMUNICATIONS.

CASE OF OBSTRUCTION OF THE BOWELS,

ENORMOUS DISTENSION OF THE ABDOMEN—PARACENTESIS CÆCI — DEATH—SECTIO CADAVERIS—STRICTURE OF THE FIRST PORTION OF THE RECTUM.

With Clinical Remarks by Professor LAYCOCK.

W. S., aged 45, a shoemaker, residing at Cupar Fife, was admitted to Paton's Ward, Edinburgh Royal Infirmary, under the care of Dr. Laycock, on January 18, 1864. Patient states that he has enjoyed good health, and is of regular habits.

State on Admission.—Circulatory System.— Pulse 84, fair volume and strength; cardiac sounds normal, impulse imperceptible. Respiratory System.— Normal. Voice thick and husky, and has been so for the last month, according to the patient's statement. Nervous System.—Sleeps well; pupils contracted; complains of occasional pain all over the abdomen, and of constant pain, increased by pressure, at the junction of the right inguinal with the umbilical and hypogastric regions. Has pain sometimes in the calves of the legs. Has occasional numbness and weakness in the left arm. Integumentary System.—Is of the neuro-vascular diathesis. Skin warm and moist. The abdomen is enormously distended, and very tense when palpated. There is no scrobiculus cordis, and the integuments about the umbilicus are much stretched. Percussion elicits a loud tympanitic note of low pitch. At the umbilicus the circumference of the abdomen measures thirty-four inches. No herniæ detectible. Genito-urinary System.— Urine dark amber colour, deposits mucus, feebly acid reaction, sp. gr. 1·025, contains no albumen nor sugar; purpurin and indican in large amount with slight excess of phosphates present. Digestive System.—Tongue dry and clean, but rough, with arborescent fissuring. Papillæ large and prominent. There is thirst and anorexia. Bowels have not acted freely since the 9th inst. On the 10th had a small, hard stool. For some weeks past he had noticed his stools to be small and hard at times, and occasionally of natural character. Remembers to have passed a small, thin portion of fæces on December 8 last, and of late he has noticed a jelly-like streak on the motions. Has had frequent desire to defæcate, but without result.

History of Present Attack.—On the evening of January 9, after working at his trade all day, he set out to walk to Cupar, a distance of six miles. Had taken his meals that day as usual. He states that after walking about a mile he suddenly felt a severe pain about his navel, which "doubled him up." He continued to walk on for three miles, when he rested at the house of a friend for a short time. He next went on to Cupar, and sought relief from a druggist, who treated him for "gravel" with antibilious pills. The bowels acted several times next day, but not freely. The pain continued, and proper Medical treatment obtained. Calomel and opium was prescribed that night and castor oil to be taken the following morning. No relief was obtained, so the same treatment was again adopted. Patient thinks there was a small stool on the 11th or 12th. During the week sinapisms were applied, purgative powders given, castor oil and turpentine, emetics, enemata of various kinds, including tobacco, senna and salts, warm baths, full doses of opium with repeated enemata failed to relieve the pain or unload the bowels. Bougies passed into the rectum at times allowed some flatus to pass. The application of ice in an ox bladder gave relief to the pain and distension. On the 18th his Medical attendant recommended him to this Hospital. He came by train, but was able to walk from the station to the steamer, and from the steamer to the train on this side of the Forth. On admission, as no herniæ were discovered and no stricture was to be felt on digital examination per rectum, the case was sent to the Medical wards.

Treatment, etc.—An opiate and fœtid enema was given at once, and a grain of opium ordered to be taken in the form of a pill every fourth hour. No solid food to be taken. Milk and lime water for common drink, with 4 oz. of brandy and ice *ad libitum*. Palpation and galvanism to be employed over the distended abdomen. This was carried out for an hour and a-half, the tension being relieved, and the intestines being caused to contract. In the course of the evening the patient vomited watery bilious fluids, and had occasional singultus. Decubitus chiefly dorsal, with knees slightly drawn up.

19th.—Had a pretty good night. Is in the same condition. Pulse 84; good volume and strength. Tongue dry and rough, clean. Seen by Dr. Laycock. Nutrient enemata of beef-tea to be given three times a-day with brandy. An opiate and terebinthinate epithem to be laid over the abdomen. No solid food to be taken into the stomach. The opium to be continued every four hours. Was galvanised over the abdomen, and palpated for half an hour, with relief, in the evening.

20th.—Had a restless night. Pulse 100; good volume and strength. Right pupil dilated. Passed flatus after an enema of beef-tea. Occasional singultus and watery bilious matters are vomited. Patient sucks ice and finds it very grateful. Injections to be given with brandy, and the pills to be continued. In the evening the abdomen was galvanised and palpated for half an hour. The following draught was given, with relief to the flatulent distension:—Œth. chlor. œth. sulph. sing., ♏xl.; ex aquæ, ʒi. Urine plentiful, excess of phosphates, and diminution of chlorides with much indican. Dr. Laycock examined the rectum to-day with the finger, and observed that there was great dilatation of the bowel immediately beyond the sphincter. The apparently normal calibre of the gut could just be felt by the tip of the finger.

21st.—Passed a better night. Pulse 80, moderate volume, becoming soft; pupils both contracted; tongue dry, with arborescent fissuring; singultus occasionally; passed some flatus during the day. The pills to be discontinued. A wineglassful of beef-tea to be taken by the mouth, and a little jelly. Half an ounce of ether to be added to each injection of beef-tea and brandy. He takes in the day brandy ʒiv., with ice. Galvanism and palpation employed in the evening. Flatus passed after the enemata.

22nd.—Had a restless night. Does not feel so "fresh" to-day. Pulse 80, rather small, and compressible; tongue dry, and fissured as before; right pupil dilated to-day; a little flatus passed, and in the evening there was a small powdery motion, of a scammony powder colour, probably *débris* of enemata, though it had a fœcal odour; vomiting watery matters and whitish masses, which are found to consist of tesselated epithelium cells and mucus corpuscles. Injections continued. To have pil. opii. gr. v., hac nocte (opii., gr. j.). With a view of affording relief to the patient, if no other indication was afforded, Dr. Laycock proposed to perform Sir Henry Cooper's operation, and tap the caput cæcum coli with a large trocar to evacuate the flatus and feculent matter. If the bowel were pinned up to the abdominal wall by long acupressure needles, the operation would be more feasible, and the gut would be prevented from retracting after it had collapsed. Thus, an artificial anus would be established.

23rd.—Feeling weaker to-day. Pulse 84, rather small, and soft; tongue dry, with a yellowish-brown thin crust upon it; skin hot and dry; watery vomiting, with flocculent masses in it, and singultus occur at intervals; passed twenty ounces of urine in the last twenty-four hours; some flatus passed to-day; abdomen continues very tense and tympanitic; right pupil dilated. He complains of griping pains about the navel. To have brandy, ʒiv., and port wine, ʒiv. per diem. To-day, by Dr. Laycock's directions, the Resident-Physician (Dr. Duckworth) introduced the forefinger of the left hand into the rectum to the point where it narrowed, and guided along it a flexible œsophagus tube. This was passed on beyond the finger till it came in contact with some obstruction. About seven inches of the tube was inserted. No pressure was made, but an injection of beef-tea, brandy, and ether was next forced into the tube. This was, however, rejected as fast as it was pumped in. Omit pil. opii. hac. nocte.

24th.—Had a restless night. Pulse 88, of rather better strength; tongue dry and rough. Passed twenty ounces of urine in the last twenty-four hours of same character as when last examined. The fact of an abundant quantity of urine being passed helped to corroborate the diagnosis of the stricture being low down in the intestine. Abdomen greatly distended. Patient looks somewhat emaciated in the face, and has a slight icteric tinge in the conjunctivæ. Is very

(f) If one or more of the lenses is a concave one, we must *subtract* the fraction or fractions representing these lenses. Thus the equivalent lens of a combination of an 8-inch convex and a 16-inch concave lens equals $\frac{1}{8} - \frac{1}{16} = \frac{1}{16}$ equals a 16-inch convex lens. If the 8-inch lens were a concave one, and the 16-inch lens a convex one, the equivalent *concave* lens is given by the formula: $-\frac{1}{8} + \frac{1}{16} = -\frac{1}{16}$, a 16-inch concave lens, the resultant fraction being negative.

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anxious for some operative procedure to be undertaken. Accordingly, Dr. Laycock having percussed out the course of the colon, which extended into the infra-mammary regions on both sides, and up to the level of the fourth rib on the right side, thrust a large four-bladed trocar into the cæcal region. Although the patient was well under chloroform, the hypertrophied oblique muscles of the abdomen seized the canula so firmly that the trocar could only be withdrawn with difficulty. Meantime a large quantity of flatus escaped, and the distension subsided. About a drachm of brownish fluid came welling through the canula; it had no fæcal odour. No fæces passed; the canula was then tied into the wound and plugged. A large opiate epithem was laid on the abdomen. The pulse was 88 after the operation, full and soft. The needles were not employed to catch up the bowel, as it was thought not unlikely that some adhesion had already taken place between the peritoneal surfaces, since the patient complained of pain about this region, and it was feared too that the ileum might be punctured.

Seven hours after the operation, Dr. Laycock examined the canula, and passed a probe through it. It was found occluded; he therefore withdrew it, and the wound was brought in contact by two points of silver wire suture. A large opiate epithem was then applied to the abdomen and a grain of opium given by the mouth.

25th.—Patient had a good night, and no pain in the abdomen. He expressed himself as being much relieved by the operation. Pulse 88, moderate volume and strength. Tongue just moist, arborescent and longitudinal fissures upon it, with dirty white fur. Vespere.—Patient complains of pain in the region of the umbilicus and over the right side of the abdomen. There is great distension again. Pulse 112, moderate volume, soft. To have Pulv. opii, gr.j., form. pil. Brandy and ice continued. Opiate epithem to the abdomen.

Was restless till 2 a.m. on the 26th. Slept for a short time, but the breathing became hurried and feebler. He died at 6 a.m., quietly.

Sectio Cadaveris Thirty-one Hours after Death.—There was a slight icteric tint in the conjunctivæ, and over the body generally. Incisions were made from the xyphoid cartilage to the umbilicus, and from this point two incisions were carried down to the centres of Poupart's ligaments. A quantity of fœtid gas escaped on cutting into the peritoneum. On reflecting the flaps, the intestines were seen to be discoloured. The cœcum and colon were greatly distended, so as to hide the stomach and liver (*vide* Fig. 1). There was adhesion by recent

Fig. 1.

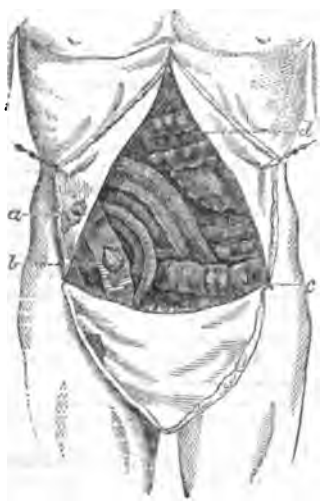

Fig. 1.—Appearance of Abdominal Cavity. *a*, Point of puncture of abdominal wall; *b*, point of puncture of cæcum repaired by effused lymph; *c*, sigmoid flexure of colon; and *d*, transverse colon distended with flatus.

soft lymph between the abdominal wall and the cæcum, and on raising up a patch of this from the gut, the cicatrix of the punctured wound was brought into view. Some of the lymph in this situation was vascular, and had been evidently exuded for some time. The colon lay in the infra-mammary region, on the right side, up to the level of the fourth rib. The sigmoid flexure in its lower portion was so distended as to occupy the entire brim of the pelvis. The intestines were removed carefully; in the small portion nothing beyond congestion and discoloration was observable. On separating the sigmoid flexure, which, with the entire mass of the colon, was filled with fæcal matter, from the left iliac fossa, and cutting through the meso-rectum, a strictured portion of the gut was detected. Immediately below the sacral promontory, the dilated extremity of the sigmoid flexure became suddenly contracted. The rectum was next removed entire. It appeared as if the bowel had been strangulated at the point of stricture, by the gut being somewhat twisted upon itself (*vide* Fig 2).

Fig. 2.

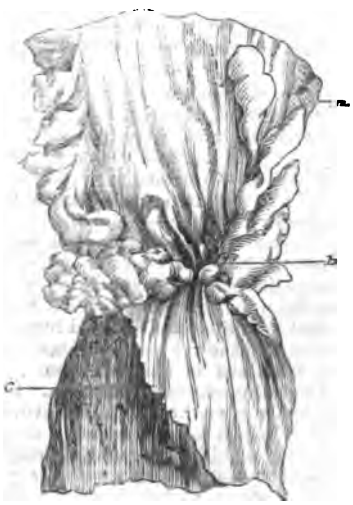

Fig. 2.—External Twisted Aspect of Stricture. *a*, Distended portion of colon; *b*, site of stricture, with adherent appendices epiploicæ; *c*, rectum with its developed muscular fibres.

On laying open the colon, fœtid gases escaped and a large quantity of fœcal matter. Hard lumps were impacted in the cæcum. The capacity of this portion of the distended gut was ascertained by filling it with water, when it was found to contain 222 fluid ounces, or a little under a gallon and a-half. The strictured portion permitted water to pass through it *guttatim*, but in the condition and position of parts during life it is improbable that the gut was pervious. On cutting through the stricture, the mucous membrane appeared dark and highly congested: there were valvular folds upon it, and dark œdematous processes looked towards the rectal side (*vide* Fig. 3).

Fig. 3.

Fig. 3.—Internal Aspect of Colon and Rectum at the Site of Stricture. *a*, Dilated portion of colon; *b*, stricture, showing the dark mucous membrane drawn into folds; *c*, dilated portion of rectum and cicatrix of an ulcer; *d*, hypertrophied muscular coat of colon; *e*, portion of meso-rectum.

The muscular layer of the colon was greatly hypertrophied above and at the point of stricture. The fibres were pale.

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The meso-rectal vessels and fat were contracted and indurated by chronic inflammatory changes. Microscopic sections of the different portions were made, and the nuclei of the muscular fibres were seen to be greatly increased in number. A large number of cells were discovered having several nuclei in their interior. They were probably the results of chronic inflammation in the part, being devoid of any specific character. In the course of the colon and rectum were numerous cicatrices of old ulcers, in one of which the stricture had probably originated. The liver was healthy; weighed 3 lb. 3 oz. Spleen, small and shrivelled, otherwise healthy in structure; weighed 2⅝ oz. Kidneys healthy; right weighed 6 oz; the left, 5½ oz. Thorax not examined.

Remarks on the Case by Professor Laycock.—Cases of obstruction of the bowels are amongst the most difficult and anxious that you will be called upon to treat. There are a variety of causes tending to its production, amongst which, as being the most important, may be mentioned spasm, volvulus, or intussusception, the presence of foreign bodies in the intestine, and stricture of some portion of the gut. Of these, the first is apt to be paroxysmal, but this condition may last for thirty-six or forty-eight hours, or even longer. Bands of organised lymph sometimes entangle loops of intestine and strangle them. Foreign bodies may lodge in the cæcum or appendix vermiformis, a sudden shock sometimes dislodges them and they are cast, incrusted with phosphates, into the ileo-cæcal valve. The rectum at its commencement and the sigmoid flexure of the colon are the parts of the intestinal tract most obnoxious to stricture. In this case I was led to diagnose stricture low down in the bowels for several reasons. In the first place the patient told us that for the last month or so before his admission here he had habitually passed small knotty masses of fæces, with slime attached to them. This fact led me to suppose that there had probably existed for some time a chronic inflammatory condition of the lower portion of the intestinal canal. Again, careful percussion proved the presence of the distended colon in the infra-mammary regions. Further, when a nutritive enema was administered by means of an œsophagus tube passed up per rectum till it encountered obstruction, it returned as fast as it was injected. Throughout his stay in the Hospital he passed an abundant amount of urine, and this would probably not have occurred had the stricture or intussusception existed far up on the small intestine. There was one circumstance, however, which militated against the stricture hypothesis—namely, the fact of the sudden painful seizure at the onset of his sufferings. The initiatory symptoms were characteristic of volvulus rather than stricture. Perhaps the gut got twisted at this moment. Pain at the umbilicus was complained of. This is significant, however, of other affections than ileus, and I am inclined to believe that intra-abdominal pain is not unfrequently referred to the umbilical region, in the same way that the irritations of vesical calculi are referred to the end of the meatus urinarius in the penis, or the tickling in the bronchi, which in some forms of bronchitis is felt in the neck. At all events, pain at the umbilicus does not of necessity imply affection of the parts immediately below this point, unless it be situated there exclusively, and in such a case the ileum would most probably be involved. If the pain occur in the right iliac region we may fairly infer that the ileo-cæcal valve or cæcum is affected, and all the more if our patient be of the female sex, since women are more liable than men to perityphlitis and disease of the ileo-cæcal valve. Now, this man's pain, doubtless, arose from the stricture situate within the pelvis, although it was referred to his umbilical region. With regard to the treatment of these cases of obstinate obstruction of the bowels, the first canon is—to do the patient no harm. Thus the practice of administering purgative drugs is much to be condemned. If the bowels fail to act after one or two doses of castor oil, it is better to desist from further efforts in this direction. The next step is to paralyse the bowel, and this is best done by repeated doses of solid opium in the form of pill. In this way all spasm is relieved, should it exist, and natural processes are permitted to go on without any injurious interference. Sometimes copious stools follow. Opiate epithemata to the abdomen are likewise grateful and of good service. Upon the plan adopted for feeding the patient much of his comfort will depend. No solid food of any kind is to be given, nor any of a nature likely to leave *débris* in the bowels. Thus nutrition must be carried on mainly *per rectum* by means of injections. A fair quantity of liquid aliment may be taken by the mouth, such as a few cupfuls of essence of beef, with wine, or liquid animal jellies. Ice in morsels is likewise useful, and always grateful; it allays thirst, and often relieves the flatulent gastric distension so common in these cases. The enemata should consist of strong beef-tea, with whipped-up eggs and brandy, or the brandy may advantageously be alternated with half an ounce of ether, should there be urgent distension or spasm in the bowels. The bilious vomiting which occurs in cases of obstruction is not necessarily a bad symptom: it is really beneficial to the patient, as the bile is carried off from the system, and not retained to be absorbed into the blood. Nor, indeed, is stercoraceous vomiting of so grave import as is generally imagined, for in this way accumulation in the bowels is diminished, and pressure is removed from the upper side of the obstructed bowel, while at the same time the painful distension is relieved. In this case there was bilious vomiting, but no stercoraceous matter was ever rejected. The patient, in spite of all treatment, was not relieved of his prominent symptom. The enormous distension of the abdomen was constant; and the pressure exerted by the abdominal organs upon the diaphragm, heart, and lungs began to induce exhaustion and distress. Though free from pain in so marked a degree, and with such little disturbance as there was, palliated to the utmost, there remained but one chance to afford the prospect of direct relief; and this was the operation of paracentesis of the cæcum. I proposed, therefore, to perform this operation, having an excellent precedent for it in a case which occurred a few years ago in the practice of my friend, Sir Henry Cooper, of Hull. This operation has several noteworthy points. It entails but little injury to the parts concerned; the relief afforded by the evacuation of the flatus is immediate, and may ultimately be complete if fæces also pass; and should it even fail in accomplishing this, the patient is not in a worse position after the operation than before. In this case the cæcum and colon were so loaded with fæces that on the collapse of the distended portion the weight of the gut caused it to slip away from the trocar, and thus only a small aperture was made. It would have been better had the sigmoid flexure of the colon been pinned up to the abdominal wall and punctured, rather than the cæcum. Nature indicated what she would have done had the circumstances been more favourable, for there were plastic adhesions in the course of formation between the cæcum and abdominal walls, and had the canula maintained connection between the bowel and the lips of the wound, in course of time a serviceable artificial anus might have been established and dilated. It is necessary to employ a very large trocar, such an one as is employed in opening ovarian cysts. No fæces came through the canula, because the opening into the bowel was not large enough for the hardened solid masses. How vain in this case it would have been to perform gastrotomy and search for the site of obstruction, was amply shown by the great difficulty experienced in reaching the seat of stricture post-mortem without wounding the intestine.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

WESTMINSTER HOSPITAL.

CLOSURE OF THE JAWS FROM CICATRICES ON BOTH SIDES OF THE MOUTH—TREATMENT BY INTERNAL DIVISION AND THE USE OF METALLIC PLATES UPON THE ALVEOLI—SATISFACTORY RESULT.

(Under the care of Mr. CHRISTOPHER HEATH.)

In the *Dublin Quarterly Journal* for May, 1863, Mr. Heath described the causes and treatment of closure and immobility of the jaws, and reported two cases treated in the Westminster Hospital—one by himself, in which Esmarch's operation of division of the lower jaw was successfully practised; and the other by Mr. Holt, in which division of the cicatrices and the after use of metallic shields contrived by Mr. Clendon (late Surgeon-dentist to the Hospital), were followed by the best results. In that case, however, the contractions were on one side of the mouth only, and it might, therefore, have been treated after Esmarch's plan, which consists in producing a false joint in front of the cicatrix; but in the case we report to-day the contractions were on both sides of the mouth, and that procedure was, therefore, inadmissible.

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The treatment by internal division and the use of shields is much more painful and wearisome for both patient and Surgeon than the method by division of the jaw (where it can be applied), and it will be seen that it was necessary to administer chloroform every time the mouth was interfered with. Mr. Heath has lately performed Esmarch's operation in another case, with the most promising results, and would prefer that operation to that by internal division in all cases where only one side of the jaw was affected.

Isabella McN., aged 18, admitted into Arden ward December 15, 1862, under Mr. Heath, with closure of the jaws and mouth by cicatrices.

History.—When five years old she had measles (?), and is supposed to have taken mercury, and, a few months after, it was noticed that the cheek was contracting, so that when 6 years old the jaws were firmly closed. When about 7 she was admitted into the Dundee Infirmary, and some operation was performed, by which she was benefited for a short time, but the jaws were soon as firmly closed as before. When about 11 years old she was admitted into the London Hospital, under Mr. Luke, who divided the cicatrices and opened the jaws with a screw. She was in the Hospital three months, and was slightly benefited for a time. Eighteen months after this was again admitted, and the same operation was repeated, oiled lint being introduced beneath the cheek, and wedges inserted between the teeth to keep them apart. The parents took considerable pains to keep the wedges in and to make her move her jaws, but the contractions soon recurred, and for the last two years and a-half the jaws have been firmly closed.

Present Condition.—The mouth is smaller than usual, owing to contractions at the angles. She can show the incisor teeth, and the upper ones are firmly closed over the lower. The cheeks are firmly bound down to the alveoli from the angles of the mouth, and there is no power of separating the jaws at all, but she can move the lower jaw a little from side to side. She introduces her food through an aperture on the right of the incisor teeth, where a tooth has been lost. She is plump and well-nourished, but has not menstruated for five months.

Operation.—December 16.—The patient having been put under chloroform, Mr. Heath proceeded to dissect up the cheek from the alveoli by passing a knife from the mouth. The bands of cicatrix were exceedingly firm, and were found to pass not only between the gum and the cheek, but between the gums themselves, and these required free division before the mouth could be opened at all, and then only by the help of a screw. A small wedge of wood was extracted from between the teeth, where it had been for some months. Oiled lint was carefully stuffed between the alveoli and the cheek and the patient put to bed. ℞ Tinct. opii., ♏xx.

18th.—The pledgets of oiled lint were removed, and the mouth well washed out. She could open her mouth for a short distance, but the movements were necessarily painful. Lint soaked in myrrh lotion was placed inside the cheek.

20th.—Chloroform having been again administered, Mr. Clendon, the dentist to the Hospital, attempted to take models of the mouth, but found that the aperture was so small and the space between the teeth so contracted that it was almost impossible to obtain a satisfactory mould. The teeth appear to have been only partially developed, with the exception of the incisors, which also are so loose as to offer little support to a shield.

22nd.—Mr. Clendon took moulds of gutta percha of the outer surface of the jaws as some guide for the formation of temporary shields.

25th.—The House-Surgeon was called up last night to the patient, who was bleeding freely from the left side of the mouth. He plugged the cheek with fresh lint, which arrested the hæmorrhage. A second hæmorrhage occurred in the afternoon, and the blood came from quite the back of the mouth, between the cheek and alveolus on the left side. Mr. Beadles, House-Surgeon, finding that a coagulum had formed which had stopped the hæmorrhage, left it undisturbed.

26th.—Mr. Heath saw the patient, who was rather reduced by the bleedings, but thought it better not to disturb the clots for another day. Ordered, wine, ʒviij.; beef-tea.

27th.—A severe arterial hæmorrhage occurred this morning, and was arrested by clearing all clots and syringing the mouth with cold water. Wine, ʒxij.; beef-tea, eggs.

29th.—No more hæmorrhage has occurred, but the patient has become somewhat anæmic. Mr. Heath thought it would be safer to postpone any further interference with the case for a week, so as to allow her to recover fully from the loss of blood. The mouth to be simply syringed out with warm water and myrrh lotion.

January 5, 1863.—The patient having been put under the influence of chloroform, Mr. Heath carried his finger freely between the cheek and the alveoli, breaking down the soft adhesions which had begun to form. Mr. Clendon then removed some stumps of teeth and all the incisor teeth (except one of the upper centrals), which were loose. Mr. Clendon then succeeded in taking more satisfactory models of gutta-percha, from which the shields might be made.

7th.—Under chloroform, silver shields were fitted upon the alveoli, the edges of which passed between the alveolus and cheek, gutta-percha wedged in between them.

10th.—Fresh shields with deeper sides were inserted under chloroform. The remaining incisor tooth came away, and several stumps were removed.

14th.—Bone wedges were adapted to the shields to keep the jaws apart and to permit of greater cleanliness than was possible with the gutta-percha. To use a lotion of the chloride of soda frequently.

21st.—Under chloroform Mr. Heath made a thorough examination of the mouth, and found everything in a satisfactory condition so far. The sulcus on each side of the mouth has considerably increased in depth, and the finger can be carried between the gum and cheek as far back as the wisdom teeth on each side. The mouth is kept well open by the bone pieces, and the absence of incisor teeth gives plenty of room in front. Mr. Clendon extracted several stumps, and then took fresh moulds of the mouth. The old shields and bone pieces were then inserted.

28th.—Under chloroform the shields were removed, and having been re-lined with soft gutta-percha, were replaced. The mouth opens very satisfactorily, and the soreness is diminishing.

February 4.—Under chloroform fresh shields with deeper edges were introduced, which kept the mouth widely open.

12th.—Some little swelling about the right eye has come on during the last day or two, but is gradually subsiding under fomentations.

28th.—The patient is able to move the jaws to a slight extent, even with the shields in the mouth, and the case seems to be going on satisfactorily. The shields were removed under chloroform (having been *in situ* three weeks), and were lined with some fresh gutta-percha, so as to fit more accurately to the alveoli. The mouth has increased in size, and the sulci on each side of the alveoli are much deepened.

March 4.—The shields were removed under chloroform, and the bone wedges cut off, their places being supplied with moveable wedges of hard gutta-percha, so as to permit the patient's removing them when eating, and thus to exercise the jaws. The granulations in each cheek were touched with nitrate of silver.

25th.—Under chloroform the shields were removed, and new ones substituted with deeper edges in front, so as to free the lips from their attachments, which were divided with a scalpel.

30th.—The lips are more mobile than before, and now that the soreness of the first few days has worn off, the shields are more comfortable than the old ones. Wedges of beech-wood were substituted for the gutta-percha. There is a clear inch between the shields when the mouth is fully open.

April 18.—Under chloroform the plates were removed, and as it was found that the right lower wisdom tooth raised the shield so much as to prevent proper closure of the mouth, it was extracted by Mr. Clendon. Fresh shields were introduced in order to obtain a correct mould of the bite, and the old shields were then replaced.

May 13.—Under chloroform Mr. Heath screwed open the mouth with a screw-gag placed between the plates, and found the space obtained very satisfactory, and the bands of tissue much less firm than they were.

20th.—The above operation of screwing was repeated.

June 3.—Under chloroform the shields were removed, and fresh ones with artificial teeth fitted to them were inserted. The space already obtained is satisfactory, and movements of the lips are very free.

17th.—The "bite" of the teeth not being quite satisfactory, the upper piece was removed under chloroform, the old shield being temporarily replaced.

24th.—The upper piece having been modified and replaced, the bite proved very satisfactory.

July 28.—The patient went home to Dundee, as Mr. Heath thought time alone was required to perfect the cure. She wears the plates with perfect comfort, and can eat crust. The

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space between the artificial incisors is three-eighths of an inch, but from one plate to the other, including the artificial teeth, one inch.

Mr. Heath has lately heard from Dr. Crockatt, of Dundee, that the patient continues in a satisfactory state, and is able to open the mouth as well as when she left town.

GUY'S HOSPITAL.

THREE CASES OF OBSTRUCTED LABOUR—FORCEPS AND CRANIOTOMY EMPLOYED IN FORMER LABOURS IN EACH—DELIVERED READILY BY VERSION.

(Under the care of Dr. J. BRAXTON HICKS.)

Case 1.—Coarctation of the Brim—Version by Dr. Hicks' Method—Labour induced by Dilating Elastic Bags, and completed in Two and a-half Hours—Child Alive—Mother Recovered.

This patient had had four children; the first two were very small, naturally born; the third delivered by craniotomy; the fourth by forceps, alive, by Dr. Hicks, who advised her to have labour prematurely induced at seven and a-half months in the next pregnancy. This, however, she neglected to do till nearly full term, when she consented. Dr. Hicks thought it useful to take advantage of even a short time, and to try delivery by the foot. It was decided by him to change the presentation while the uterus was quiescent. Accordingly, on March 13, 1864, the cervix was dilated readily by elastic india-rubber bags, so that in an hour the cervix was fully dilated. Chloroform was now given; version easily by combined external and internal method; membranes ruptured, and the foot drawn in vagina. Chloroform was then withdrawn, and the uterus began to act. In half an hour after it was in fair rhythmical action, and had expelled the breech. A dose of secale was given to secure its full action after, and the child was gently drawn down during the pains. When the head was engaged in the brim, the traction was increased, and once detention ensued for four minutes, owing to the prominent sacrum; the head, however, gradually passed through, and the difficulty was over. The child soon began to breathe, although the funis was not pulsating quite five minutes before birth.

The whole affair was over in about two and a-half hours from the commencement of the dilatation to the delivery of the head. The placenta came away naturally. The mother and child are doing well.

Case 2.—Semi-Elastic Solid Tumour in Cavity of Pelvis, lessening its Antero-posterior Diameter One-third—Craniotomy in Former Labours—Version in Early Labour by Dr. Hicks' Method—Delivery of Dead Child—Recovery.

In this patient there is a tumour, semi-elastic, extending from tip of caceyx upwards three inches, spreading laterally halfway round on each side. In the former labour forceps were tried, but they failed to bring down the head, in consequence of the pressure of the head from above causing bulging so as to reduce the antero-posterior diameter to about half. The child was delivered by craniotomy. She was advised to have premature labour induced at seven and a-half months upon a future occasion. This, however, she neglected, and when she was seen on March 13, 1864, she was in labour. Dr. Hicks having determined to employ foot presentation, version was accomplished by the combined external and internal version readily under chloroform, and the foot brought into vagina. The chloroform was suspended, and the pains soon came on vigorously. The body descended shortly, but the head was detained long enough to take away the chance of a living child, but infinitely easier than the former craniotomy. She recovered rapidly.

Case 3.—Equally Small Brim—Large Head—Forceps found Dangerous—Version—Delivery of a Dead Child—Recovery.

This patient had had eleven labours, in all of which the child was born dead, excepting in one which was premature. In three craniotomy, in three forceps. The cavity and outlet were very full sized; the brim was remarkably small in every direction. She had been in labour twelve hours on March 25, 1864. Head at brim five hours without progress. Forceps were put on, but as it was found that they would have seriously pressed on the brim they were withdrawn, and version was employed instead by the old method. There was much difficulty in effecting the descent of the breech, owing to hour-glass constriction of uterus. This being at last overcome by gentle traction, the head was again engaged at the brim. Steady traction for two minutes caused it to come through, but it was dead, having probably been so for some time. She progressed favourably.

Dr. Hicks remarked that induction of labour at the eighth month and delivery by foot presentation would, in all probability produce a live child.

ST. GEORGE'S HOSPITAL.

TWO CASES OF ULCERATION OF ARTERIES.

(Under the care of Mr. HENRY LEE.)

THE first of these was that of a married woman, named Eliza M——, 53 years of age, whose arm was amputated for disease of the wrist on October 29, 1863. Some phagedænic ulceration followed the operation. She died on December 2, a very large quantity of blood having been found in the bed. On examining the arm, a deep cavity was found to exist on the inner side of the arm, from the surface of the stump to within an inch of the elbow joint. This cavity was filled with recent coagula, which evidently had come from an opening in the ulnar artery an inch and a-half from its origin.

The second case was one of ulceration of the artery, in which no corresponding opening existed in the skin. A lad, named F——. On Good Friday, 1860, he was kicked on the knee-cap, which caused him some pain for two or three days. Nothing further occurred until May 25 of the same year, when the right ankle became swollen, and in two days more the swelling reached to the knee. There was no pain nor difficulty in walking. He was admitted into St. George's Hospital on the 29th of the same month. The whole of the right leg and thigh were then swollen from serous effusions in the cellular tissue. The patella was raised by effusion into the knee joint. There was no pain, nor discolouration of the skin. On the 30th, the swelling was much less, but some swelling continued on June 14. He now left the Hospital; but the leg continued slightly more swollen than natural. It did not inconvenience him, and he was able to go about his work. On November 10, 1863, the whole leg again began to swell whilst he was at work, and in the evening the boot could scarcely be removed. The stocking was found saturated with serous fluid, and on its removal the skin had given way at two points—viz., at the upper and outer part of the thigh and at the point of the great toe. On November 12, he had great pain in the popliteal space. There was pain on pressing the articular cartilages against each other. The principal swelling was now above the knee on the inner side. A grooved needle introduced at this point allowed serum only to escape. On November 13 there was some redness about the knee-joint, less pain on pressing the articular cartilages. On November 17 the swelling had increased in the whole thigh and leg. A grooved needle again introduced allowed the escape of some sero-purulent fluid. On November 21 swelling of leg increased. On December 21 an incision was made above the knee, and a large quantity of bloody fluid was evacuated. From this time a very large quantity of fluid was discharged daily, partly from the wound above-mentioned and partly from an opening which occurred spontaneously below and to the outer side of the knee. The fluid thus discharged gradually became more fetid, and the proportion of blood which it contained became gradually greater. The patient died on January 5. Nearly the whole of the thigh was occupied by a large blackened cavity, through the centre of which the femur passed down, covered by blackened periosteum, but denuded of muscles. The femoral artery and several of its branches were exposed and dissected. On injecting water into the femoral artery it passed in a fine stream through a circular aperture in one of its branches. This aperture was either an ulcerated opening in the side of a vessel, or else the ulceration has extended round a smaller branch at its origin, so as to separate it completely from its attachment. The abscess in the thigh communicated with the knee-joint and extended into the calf of the leg. The articular cartilages of the joint were gone, and the bone was roughened and covered with lymph. The other organs were healthy, with the exception of a part of the lower lobe of the left lung, which was solidified.

ARMY MEDICAL APPOINTMENT.—Miss Mary C. Walker, M.D., arrived here last week with orders to report to Dr. Perrin for duty. She has been appointed to Colonel M'Cook's brigade, and has just left for Gordon's Mills, where the brigade is stationed. The young lady is said to thoroughly understand her Profession. She is very pretty.—*Chattanooga Gazette.*

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Medical Times and Gazette.

SATURDAY, APRIL 16.

ARMY MEDICAL MATTERS.

At that period of our lives when we possessed two great enemies always menacing us,—the nursemaid and the Doctor—the former would threaten us with physic from her coadjutor in wickedness, the Doctor, or would occasionally try to beguile us into silence, if not goodness, by a fairy tale.

Now that we can gaze upon "young knickerbockers" of our own nursery, we may have lost the pleasures arising from an open-mouthed absorption in their recital, but we have preserved sufficient "greenness" to feel gratified with the fictions, while we can recognise the homely truths which underlie them.

Well we remember the "Prince with the Nose." A king succeeds, after many efforts, in stamping upon a cat's tail, by which he broke an enchantment, liberated a lovely and captive princess, who—with that rapid consummation of happiness only to be found in these stories—speedily became his wife. We learn that the aforesaid cat changes into an infuriated man, and threatens the happy pair with a son and heir who shall have a nose, and no mistake.

In due time a little prince came, and he had every feature in lovely proportion except the nose, which covered half his sweet face. The queen-mother was consoled by her ladies. The nose was not nearly so large as it seemed; it would grow smaller as the prince grew bigger, and if it did not, a large nose was indispensable to a hero. All great men had great noses, as everybody knew. The little prince was, in due time, told all kinds of amusing stories, in which the main element consisted in making out that all the men with large noses were good people, and those with small noses bad ones. The prince was surrounded with portraits of big-nosed ancestors, and all persons with a diminutive form of this feature were banished. To possess an enormous nose was the climax of a man's ambition, as it was the sure way to his success in life. Babies had their noses pulled then on principle by their fond parents; and as the long, well-developed nose was the mark of the "swell" of that day, the "snub" was an unmistakable indication of the snob. Well, we read how the prince grew up in this kind of thing, and, in process of time, fell in love with a charming young princess, whose only drawback was her small nose (a fact which the sophists of that day soon managed to prove was the right thing for a woman, and quite consistent with the prevalent belief); how the being whose feelings had been outraged by the aggression on his tail soon found out how matters stood, and treacherously carried off the beautiful princess; how the determination to rescue her led the prince into a land of normal-nosed inhabitants; how a garrulous old fairy raised his choler by her remarks on the size of his nose, and politely requested him to turn his head a little, as his nose cast such a shadow on her plate; how the prince saw his lady-love, but could not get at her for the length of his said nose, and how he at length exclaimed, "Well, my nose is too long," and thereupon how all obstacles to his happiness were instantly overcome. The old fairy—as old ladies are apt to be—is very candid, and tells him "You ought to be much obliged to me. I might have talked for ever on the subject of your nose, and you would not have believed in its length till it became an obstacle to your own inclinations." The story comes to us as fresh as ever, and the truths it teaches—like all stories worth the telling—lie upon the surface, and are not limited to children only.

With a little mental readjustment we can adapt it to the conduct of many people in the present day. We take one illustration. The authorities persist in saying that the Army Medical Department has no grievances; then that the grievances are much less than stated, and will cease as the department grows; then they introduce all the men they can who are of their way of thinking, and banish all others; then they declare that all the *good* Medical officers have no grievances and all the bad ones have, and so it goes on; but, spite of all they can do, people will perceive and assert the truth, till the Army Medical Department is almost in the state of a derelict ship.

We suppose that the authorities must sooner or later make the discovery, by a process something akin to that of the prince, for no amount of talking will ever convince them. They are beginning to find by experience that the ugly features in the Army Medical service have become as evident as the nose on one's face. Their last shift has brought them a very slight accession. Here and there a man under 30, who has not found the paths of private practice to be the ways of pleasantness and profit, has boldly entered Whitehall, and desperately taken the street to the Director-General's office in search of these things.

Seeing that an army can't exist without Medical men, looking to the fact that Doctors are becoming much less numerous than of yore, and of far better education and social stamp, the sooner the authorities read what everybody else can see the better for themselves and the pockets of the tax-payers. In the meantime, as soldiers will get sick and Doctors must be had, we have learned that a new plan may be adopted to get them. We heard the rumour some time ago, but did not refer to it because we did not credit it. However, it has been stated as having a foundation in fact. It is rumoured, then, that the gap is to be filled by means of civilians and acting Assistant-Surgeons. A member of the Medical Department may be years abroad, longing for the home which he may now never see, until he is placed upon permanent or temporary half-pay, for the civil element will, we suppose, perform the Medical duties of the home stations. Should this be true, it is as lamentable as it is unjust.

If the Government authorities would only have the courage and candour to meet the evils face to face, they would be saved all the present difficulty, which will only gather additional force for every day that it is put off.

It must be confessed that "the nose *is* too long." That is the disagreeable truth.

So long as there is the probability of serving in all climates for twenty or thirty years on the pay and position of an Assistant-Surgeon, so long as the duties comprehend what they now do—the monotonous courses of rifle practice, the degrading work of branding, the clerk work, and the restraints on all liberty of action in the discharge of those duties—there is not much chance for the Army's obtaining its share of the really well-educated, gentlemanly, zealous, and able-bodied young men from our Medical universities. Until some reforms are made, and we may take the two temperate letters by an Army Surgeon, which lately appeared in our columns, as expressing the direction which those reforms should take, it is very unlikely that the Army Medical Service will be as popular as the other walks of life open to the rising Physicians and Surgeons.

In the meantime, to expect men to compete for posts which are going-a-begging, and which others are daily resigning,

bears on the face of it a ridiculous misconception; and, on the other hand, to introduce a number of men as acting Medical officers without any examination is an unjust and miserable expedient, is brimful of evils, present and prospective. On one or other of these horns the authorities now find themselves, and seem very likely to remain.

THE WEEK.

GENERAL GARIBALDI.

We are glad to be able to present our readers with the following authentic Surgical account of the present condition of the illustrious foreigner:—The wound in General Garibaldi's leg has been entirely and soundly cicatrised for three months or more, and the only indication of the injury is a dimple on the inner side of the ankle where the ball entered. There is no sinus and no discharge, and as the parts are thoroughly cicatrised, there is, in all probability, nothing present in the shape of a foreign body or piece of necrosed bone. The main symptoms from which the General is at present suffering are the effects of long-continued inflammation, represented by considerable stiffness and want of motion about the ankle. There is limitation of movement in various directions, and, in all probability, there is a pretty firm ankylosis of the ankle joint itself. There is, however, a considerable capacity of motion in the tarsus. By the aid of a stick the General can move the limb freely. From this account it is clear that no active Surgical treatment is needful.

PARLIAMENTARY.

On Thursday, April 7, in the House of Lords the Malt for Cattle Bill was read a third time and passed.

In the House of Commons the event of the evening was Mr. Gladstone's financial statement. The main points in the budget of 1864 are doubtless well known to our readers, and we have only to congratulate them on the prospect of a reduction of 1d. in the pound income-tax, and of about one-third of the tax on sugar. The sugar tax is still to be discriminating instead of uniform, a mode of taxation which favours the introduction of the coarser varieties of sugar. The objection urged to a uniform duty on unequal qualities is, that in effect it would afford protection to the growers of pure sugar in Mauritius and elsewhere, and to foreign refiners. Mr. Gladstone has therefore decided on preserving the present system, which is at least equally a system of protection to the producers of the inferior qualities. It can scarcely be doubted on which side the interests of the general public lie. But it would be ungracious to criticise too closely a budget which has so much to recommend it.

On Friday, April 8, Mr. Gregory called attention to the condition of the scientific institutions of Dublin which are assisted by Government aid.

Sir R. Peel said the Government were prepared to agree to the appointment of a Select Committee to inquire fully into the character of these institutions.

On Monday, April 11, in the House of Commons, the debate on going into Committee upon the Government Annuities Bill was resumed. Sir M. Farquhar's amendment was ultimately agreed to, and the bill was ordered to be referred to a Select Committee.

The House then went into a Committee of Supply on the Army Estimates.

Upon the vote of £5,708,983, for general staff and regimental pay, allowances, and charges, a long debate took place, in the course of which Mr. O'Reilly instituted a comparison between the cost of the British and French armies, in all the details of the charges, which showed that, in all of them, with the exception of Medical attendance and appliances, those of the British army were nearly double those of the French army, calculated per man of the respective forces.

In the course of his general reply, Lord Hartington gave details relating to the effects of the Limited Enlistment Act. There were two points touched on in his Lordship's speech which are of Professional interest. One was the reduction of mortality in the army. He said:—

"By the returns of 1850, 1851, and 1853, it appeared that the annual deaths in the army were over 29 per thousand, while according to the same returns of ten years subsequent, 1860, 1861, and 1862, the deaths were reduced to 18 per thousand, showing in the death vacancies of the army a reduction of 11 per thousand. Now, the average number of men serving during the last years was 195,730, and the difference of the two rates of mortality would cause in these numbers an annual saving in death vacancies of 2,200 men. He was quite aware that they could not attribute all that saving to any particular cause. No doubt, the improved sanitary and Medical regulations had done something, and he hoped a great deal; but the great bulk of the saving of 2,200 in the death vacancies annually was to be attributed to the fact that in 1860, 1861, and 1862 we had a much younger class of men than in 1850, 1851, and 1852. After our army had suffered great losses in the Crimea and the Indian mutiny, a very large number of young men joined it. Still it was quite evident that the army was, to a certain extent, composed of younger men, and, therefore of a class of men less likely to die rapidly. In that view he was borne out by some Medical statistics which had been drawn up, from which it appeared that in the army the number of deaths of men under 30 years of age was 17 per 1,000, while of men between 30 and 40 it was 28 per 1,000. In India the comparison was still more striking; for there the mortality of men under 30 was 39 per 1,000, and of men between 30 and 40 it was 74 per 1,000. It was clear, therefore, that in an army composed of younger men the mortality was less than among older men."

If this deduction be true, it militates to a certain extent against the belief that the constitution becomes fortified by exposure against the various deteriorating influences to which the soldier is subjected. The higher rate of mortality is not amongst the young lads who are sent raw to India and the colonies, but amongst the tried and seasoned soldiers who have completed a large portion of their service. The other subject referred to by the Marquis of Hartington was the slowness and difficulty with which men are obtained for the army. His observations show that the relaxation of the law which made the Surgeon responsible for the expenses of a recruit rejected after examination has been wrung from the authorities, not by the remonstrances of the Medical Department, but by the fact that the Surgeons have discharged their duty so scrupulously that they have rejected too large a number, and the service has accordingly been starved for want of men. His Lordship said:—

"Much of that slowness was attributable, he believed, to the stringency of the Medical regulations, which threw the whole travelling expenses of a recruit rejected by the regimental Surgeon upon the Surgeon who had originally passed him. The consequence of that regulation was that the Surgeons attached to the recruiting staff were over careful in passing recruits, and in order to encourage recruiting so as to obtain the ordinary number it was intended to relax the regulation he had referred to, and to reduce the standard by one inch."

The authorities have been taught two lessons by experience—first, that in the matter of passing recruits it is possible to err on the side of too much care as well as in the opposite direction; and secondly, that the service is really better off when it trusts to the honour and rectitude of its Medical officers in the performance of their duty than when they are placed under an arbitrary and oppressive system of pains and penalties.

The votes on the Army Estimates were agreed to.

Lord Hotham again introduced the subject of the Crawley court-martial. He contended that the court-martial need not, and should not, have been held in this country, and that the expense and scandal might have been avoided. The points of Professional interest connected with the court-martial were not touched on.

Mr. Gregory moved for a Select Committee to inquire into the condition of the scientific institutions in Dublin.

On Tuesday, April 12, in the House of Lords, Lord Westmeath moved the second reading of the bill empowering the judges to add flogging to the punishment awarded by the law in the case of persons acting as accomplices in criminal assaults on women.

After some discussion, the bill was read a second time.

Lord Carnarvon moved for copies of the correspondence relative to George Hall convicted of murder at Warwick and

respited on March 13. After commenting on the facts connected with the cases of Townley, Wright, and Hall, he said that he approved the final decision in the case of Hall, but thought the Secretary of State ought not to shift his responsibility upon a power so uncertain and capricious as public opinion.

The Lord Chancellor took on himself all the responsibility of the decision as to the disposal of Townley after his removal to a lunatic asylum. He had also been consulted by Sir G. Grey in the case of Hall, and, taking only the legal view of the evidence, he had advised the decision announced in the first communication to the Birmingham magistrates. But he, nevertheless, felt glad that Sir G. Grey subsequently revoked that decision on other than legal grounds, as there were, no doubt, circumstances in the case that in general opinion reduced the murder to homicide of the degree of manslaughter, and the execution of the criminal would have shocked the community. Every allowance should be made for the peculiar position of a Secretary of State who succeeded to the office with all its traditions and rules of proceeding that had grown up in a long series of years. He exercised a power that under the present system must be considerably affected by personal disposition. A stern man would probably resist a pressure to which one of gentler temper would yield. The prerogative of the Crown must of course be maintained unimpaired, but he wished the Secretary of State could be assisted in his decisions by some authorised body that could act on more distinct principles. The whole subject was difficult and important, and deserved the serious attention of the Legislature. As to the motion, he would give Lord Carnarvon every information on the case, but the communications to him were almost private letters, which it would not be expedient to publish.

The motion was withdrawn.

In the House of Commons, Captain Jervis brought the subject of the grievances of the officers of the late East India Company's service under notice. As the debate turned almost entirely on the effect which the recent change has had upon the position and advantages previously enjoyed by the "combatant" part of the service, it does not require our notice. The only reference to the Medical branch of the service was made by Mr. Bass, who asked "whether anything was to be done to remedy the grievances of the Medical officers in India." To this Sir Charles Wood gave the vague and unsatisfactory reply that "the case of the Medical officers had to receive an entirely separate consideration." We believe that the Government will before long find out that the subject of the Medical Department in India will need consideration in another sense than that in which the Secretary of State for India spoke. In the Indian army it is said there are about 100 vacancies, and it is utterly improbable that under the policy the Government are at present pursuing they will get any Medical officers to fill them. In the old days of the East India Company there were always double as many candidates as vacancies, in the Assistant-Surgeons' list. But the East India Company, whatever were its shortcomings, had a knack of keeping faith with their servants.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE XI.—FEBRUARY 25.

Anatomy of the Chimpanzee Continued.—The scapula is of an elongated and narrow form, compared to that of man, and has a very clearly defined articular surface on the acromion for the clavicle. The last-named bone much resembles in its curves and general form the human clavicle. It articulates very obliquely to the manubriam sterni, so that the outer rises greatly above the level of the inner extremity, causing the characteristic high shoulders and apparent shortness of the neck, for, contrary to what is generally supposed, the cervical region is not really shorter proportionately to the trunk than in man. The humerus, radius, and ulna closely resemble the same bones in the human subject, with the alterations of proportion already noticed. The radius is rather more curved, giving a wider interosseous space. There is no essential difference in the structure of the carpus from that of man, the bones have the same number and relations to each other, but they present slight differences of form and proportion. The trapezium is a smaller bone, and its articular surface no longer presents the characteristic saddle-shape found in man, but is a simple, oval, convex facet, in relation to the comparative small size and less important function of the thumb itself. The fingers are of much greater length, compared with the breadth of the hand, than in man, and the phalangeal bones are more curved. These modifications of the hand of the chimpanzee show that it is an organ less adapted for administering to the will, exercising the sense of touch, and the multitudinous purposes to which it is put in man, but have clear reference to its principal purpose as a scansorial organ.

The pelvis differs greatly from that of man. Though the whole animal is smaller, the pelvis is absolutely of greater length. The iliac bones are much narrower in proportion, and the whole has little of the basin-shape characteristic of the human pelvis. The front surfaces of the ilia are certainly somewhat concave, and traces of the sigmoid curvature of the upper margin are visible. The sacro-iliac angle is more acute than in man, not exceeding 70°. The pubic symphysis is singularly long, and the union of the bones very complete.

The antero-posterior diameter of the pelvis greatly exceeds the transverse diameter, contrary to what generally obtains in man, and another important point of difference, and approximation to the lower monkeys, is the eversion of the tuberosities of the ischia. The femur is of small size, but not otherwise unlike that of man; the internal condyle, however, scarcely projects further than the external. In the ankle-joint, the astragalus is embraced firmly by the projecting malleoli; but the lower articular surface of the tibia, instead of being horizontal, slopes obliquely upwards to the outer side. In the foot, the extremely different proportions of the tarsus, metatarsus, and digits from those of man have already been alluded to; the metatarsal segment being rather the shortest of the three. The various bones of the tarsus have fundamentally precisely the same number, form, and relations, but the differences in detail are numerous. The hinder process of the calcaneum is much less developed than in man, and its tuberosity is single and narrow at its inferior extremity—circumstances which greatly impair the efficiency of the foot as an organ of support. The scaphoid and cuboid bones rotate freely on the astragalus and calcaneum, and it is on account of this mobility, and not from any peculiarity of the ankle joint, that the outer side of the foot comes to the ground first when walking, and that the soles naturally turn inwards when the foot is at rest, or in climbing. The phalanges of the toes exhibit a certain concavity of the under surface, but not so marked as in the fingers. But the greatest peculiarity of the foot, and one which makes it pre-eminently adapted for grasping boughs in climbing, is the position and mode of articulation of the great toe. This is one of the most interesting examples in nature of a very slight modification of the structure of parts essentially the same producing a vast change in their function. The change is in the articular surface of the entocuneiform bone—a change the converse to that which takes place in the trapezium. The result is that the toe is freely moveable, though not in the same direction as the others, being opposable to them, and the peroneus longus muscle, having precisely the same origin and insertion as in man, has its function reversed, and instead of steadying the leg from a fixed point below, becomes a powerful adductor of the great toe, affording prodigious grasping power to the foot.

Leaving the skeleton, Professor Huxley passed to the consideration of the muscular system, confining his observations to the upper and lower limbs, of the muscles of which he had lately, in conjunction with Mr. Flower, made a new and careful dissection. There are certain muscles which the chimpanzee possesses, which are not found in man. There are,—1. A muscle passing from the transverse processes of the upper cervical vertebræ to the outer end of the clavicle, called "levator claviculæ" by Tyson, and "trachelo-acromial"

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by Duvernoy. This muscle, however, does not seem to be always present even in the Chimpanzee. 2. The "dorso-epitrochlear" of Duvernoy, a muscular slip passing from the tendon of insertion of the latissimus dorsi to the elbow. 3. The "scansorius" of Trail, arising from the edge of the ilium, and inserted into the great trochanter, a powerful internal rotator of the leg. 4. A very small muscular slip, arising from the calcaneum, apparently detached from the abductor minimi digiti, and ending in a tendon inserted into the base of the fifth metatarsal bone, which might be called "abductor ossis metacarpi quinti." Now, these muscles, though stated to be absent in man, are not wholly unrepresented, either normally or exceptionally. 1. A separate bundle has been seen to pass from the mastoid process to the extremity of the acromium, detached from the trapezium, and representing to a certain extent the trachelo-acromial of the inferior mammals. 2. According to Henle, the triceps extensor of the arm has constantly a tendinous slip from the latissimus dorsi, constituting an interesting approximation to the dorso-epitrochlear. 3. A distinct muscle arising in front of the gluteus minimus near to the sartorius, and either joining the tendon of the gluteus or inserted separately into the femur, and so resembling the scansorius of the apes, has been observed in man. 4. Although not hitherto noticed in anatomical works, Mr. Wood has frequently seen in the human foot a muscle precisely corresponding to that above described under this head.

There are certain muscles which are developed in man, and which either are, or are commonly said to be wanting, in the chimpanzee. These are—1. The extensor primi internodii pollicis; 2. The peroneus tertius. Instances of the absence of both these muscles in man have been met with—the latter, especially, is very variable. The transversus pedis and the extensor indicis have both been said to be absent in all apes; but, on the contrary, they are really well developed in the chimpanzee, and as we shall afterwards see, in other members of the group. The flexor accessorius was absent in the specimen recently dissected, but it has been found by other observers.

Certain muscles differ from the same muscles of man in their origin. The soleus rises only from the fibula by a tendinous head. The flexor brevis of the toes arises partly from the calcaneum and partly from the under surface of the tendon of the long flexor, the division for the fourth and fifth digits having the latter origin. This remarkable simian modification is, however, met with occasionally, and in a limited manner, in the human foot, the muscles furnishing the perforated tendon for the fifth toe having been seen to arise from the tendon of the long flexor, apart from the remainder of the short flexor.

FROM ABROAD. — ENGLISH AND FRENCH STATE-MEDICINE — THORACENTESIS IN PLEURISY—REGENERATION OF BONE.

A REMARK made by a reviewer of Mr. Simon's Report to the Privy Council, writing in a recent number of the *Union Médicale*, is worthy of notice as indicating a point too often forgotten among ourselves. Loud are the encomia which some of us are in the habit of passing on the elaborate official organisations which exist on the Continent, as contrasted with our own more humble and less comprehensive arrangements; but the comparison is not always carried far enough for the appreciation of results, or the conclusions arrived at might prove rather different. The observations of the reviewer would apply still more forcibly to our registration reports, returns similar to which, as regards completeness, accuracy, and importance, are to be found nowhere, either in Europe or America. "It is not," he observes, "that public or administrative Medicine is as well organised in England as it is in France, but our neighbours know better how to utilise their institutions, incomplete though they be. With us organisation is carried even to luxury, for we have Physician-Inspectors of Mineral Waters, Physicians of Epidemics, Sanitary Physicians in the East, Vaccinating Physicians, Medical Verifiers and Inspectors of Deaths, Medical Inspectors of Foundlings;—all these radiating from central institutions, as the Academy of Medicine, or the Consulting Committee of Public Hygiene, or from the local councils of Hygiene and Salubrity of the different departments and arrondissements—all, however, leading to no general and united whole, such as that which we have now under consideration. The Academy of Medicine publishes annually general reports on epidemics, mineral waters, and vaccination; and several, but not the greater number, of the Councils of Hygiene likewise publish the result of their labours; but there is an absence of connection and co-ordination among these; and it is thus impossible to educe from them a general statement of the condition of the public health in France like that furnished with respect to England by Mr. Simon."

Continuing the discussion on paracentesis in pleurisy at the Surgical Society (*Med. Times*, March 26, p. 344), M. Hérard terminated a long discourse with these conclusions:—1. Thoracentesis is formally indicated whenever danger of suffocation arises. 2. In chronic effusions a complete cure may be obtained by its aid, accompanied or not with iodine injections; but this is exceptional, the ultimate result being in general unfavourable. The fluid reaccumulates, and the patient in the end succumbs, and sometimes more rapidly than if no operation had been performed. 3. In acute pleurisy with moderate effusion, thoracentesis does not offer any marked advantages, and is generally a useless operation. 4. In recent pleurisy with great effusion it is indicated, even when there is no intense dyspnœa. It cures quicker than any other means, and usually prevents the occurrence of sudden death, which is not infrequent in pleurisy. M. Hérard, although he would not hesitate to operate in an urgent case after the fourth day, considers that the period between the ninth and the eleventh day is that in which there is the greatest hope of expansion of the lung without reproduction of the effusion. Even until the second month this chance continues great; but later, a tentative puncture should be made, in order to ascertain whether the lung still dilates, only completing the operation in the affirmative. M. Moutard-Martin believes that in hyperacute pleurisy, in which the effusion takes place very rapidly, the operation is the more successful the nearer it is performed at a period between the seventh and eleventh day. M. Béhier declares that he has never met with any ill effect, whether immediate or remote, resulting from this operation, which, indeed, can scarcely be called an operation, especially when compared with the results which it gives rise to. We must not be in too great a hurry to operate, for a puncture made on the fourth day runs a risk of being followed by a reproduction of the fluid. From the ninth to the eleventh day is the best period. In chronic pleurisy, the operation, even with iodine, fails, and the chronic stage may commence as soon as the second month. In recording cases of sudden death from pleurisy, M. Béhier believes that co-existing pericarditis has sometimes been overlooked. M. Chauffard directed attention to the importance of employing active measures in the early stages of pleurisy, as bleeding, diuretics, especially nitre, and exutories, and in most cases the necessity for paracentesis will be superseded. The period at which it should be performed must depend much on the individual, but it will be usually advisable to wait until the ninth or eleventh day. M. Gaillard feels convinced that the danger of thoracentesis has been made too little of, and refers to a case of his own, in which the patient operated upon at 8 was dead at 4. M. Woillez, while far from considering the operation usually a dangerous one, cannot admit the absolute innocuity claimed for it. Not only has fatal syncope supervened in some cases, but in others the lung has been perforated by the trocar, this explaining the pneumothorax which sometimes persists after the operation. The statistics of the seventy-five operations performed by Dr. Bowditch show that fatal results are by no means infrequent. These statistics M. Béhier regards as

valueless, comprising as they do an indiscriminate collection of cases bearing no resemblance to each other. The danger of the operation should not be exaggerated so as to diminish the frequency of its performance, for numerous patients die at the fourth or fifth month whom paracentesis might have saved.

M. Goupil observed that upon an examination of twelve cases of sudden death from acute pleurisy, he finds that in the majority this has not been due to syncope, but to some complication such as pericarditis, emboli, or coagula in the heart; that the accident has occurred almost as often in moderate as in excessive effusion; and that it takes place generally at so late a stage that premature recourse to thoracentesis is not requisite. M. Goupil is not an opponent to the operation, for he has often performed it; but he thinks that it is especially useful when the effusion is abundant, and when inflammatory accidents are no longer present. He has resorted to it with advantage from the fifteenth to the twentieth day, when by means of percussion and auscultation and the use of the cyrtometer (which he regards as a very useful means) the effusion is found to be on the increase or to remain stationary. It is here a proper operation; not that the fear of sudden death should induce its performance, but the failure of other methods of treatment.

M. Ollier, of Lyons, communicates to the same Society some additional results of his interesting investigations on the regeneration of bone. Although the fact of this regeneration has now been definitively acquired and appropriated by Surgical science, yet such regeneration does not take place in all bones in the same manner, being more constant, easy, and rapid in the long than in the flat and the short bones. One general and essential condition of the regeneration is the preservation of the periosteum, hundreds of experiments and observations having shown that this will not occur when this membrane has been completely removed. The reproduction of the diaphysis of long bones is admitted by all; but M. Ollier's preparations show that the epiphyses are no less truly regenerated, although a much longer time is required. The regeneration of the flat bones has been wrongfully denied; for by means of the external periosteum derived from the frontal bone, M. Ollier has been enabled to construct a new nose possessed of complete osseous solidity; while the internal periosteum of the cranium, the dura-mater, has in his experiments also given rise to ossification. Again, the mucous periosteum of the nasal fossæ, palate, etc., will also produce osseous substance; but to do this it requires a long space of time, as five, six, seven, or eight months, before the reproduction takes place. The short bones may also be reproduced, M. Ollier having succeeded with the calcaneum, cuboid, etc., in animals. In all these regenerations the new bone sometimes acquires greater dimensions than the original bone. M. Ollier has never found in the course of the operations of resection or bony extirpation which he has performed any practical difficulty in preserving the periosteum—not even in the case of bones with anfractuosities like the jaw. The conditions under which regeneration becomes possible are the youth, good constitution, and favourable hygienic condition of the patient; and the thickness, resistance, and adhesion of the periosteum to the osseous tissue. In cachectic or scrofulous subjects the regeneration takes place imperfectly or not at all. The thickness and resistance of the periosteum constitute a most important sign as to its reproductive power, and the condition of the membrane will accurately indicate beforehand whether success, and what amount of it, is likely to attend the operation. The general conclusion M. Ollier arrives at is, that not only is osseous regeneration possible in man, but that it takes place more easily in him than in animals.

Medical Benevolent College.—We are glad to see that the approaching anniversary dinner of this excellent Institution will be presided over by Sir Charles Locock. Peers of the realm have hitherto occupied the chair, and we thank them for the aid given; we are now gratified to see a member of our Profession announced for the Twelfth Annual Festival, and we call upon our brethren to add their names to the stewards' list, thus testifying their respect for the Chairman, and their unabated zeal to further the continued success of their College.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF WOLVERHAMPTON.

(Continued from page 404.)

In my last paper I described the Infirmary of Wolverhampton. With that I bring to a close the history of the Medical institutions. For the relief of the sick there is no Dispensary, and no other Hospital in the town.

MEDICAL SOCIETIES.

There was a Medical Society in Wolverhampton some time since which at first promised well. It was established in the year 1861, but after a few months of existence it languished, and is now, I believe, defunct. The members met at each other's houses, and papers were read and discussed. It is a great pity that an undertaking promising so much for science should have thus decayed, for assuredly there is not a town in the United Kingdom that presents a finer field for Medical observation and research. If I might venture to assign a practical reason for the failure of the Wolverhampton Medical Society, I should name the fact that the meetings were held at the houses of the members. For such a society to thrive the place of meeting must be central, the ground neutral, and the organisation perfect. There must be a president annually elected, and each office must carry with it its due meed of honour and distinction. Then a wholesome spirit of fair competition is set up, in the absence of which, science, not less than commerce, either sinks into a monopoly—a dying thing that torments the world with its agonies—or ceases altogether to exist, a better fate.

PAROCHIAL MEDICAL PRACTICE.

The *town* is divided into four districts, the salaries of the Medical officers varying from £50 to £75 a-year. To the districts may be added the Workhouse, for which a stipend of £130 a-year is paid to the Medical officer. The *whole district* of Wolverhampton, however, is divided into seven parts, and is attended by the following Medical officers:—W. Dunn, Esq., H. Hancox, Esq., D. Shelswell, Esq., G. N. Smith, Esq., D. Best, Esq., W. M. Hancox, Esq., J. Harthill, Esq., and H. Gibbons, Esq., the Surgeon to the Workhouse.

The rates of payment and amount of labour are shown as follows:—

	Population.	Average.	Annual Fee. £ s.
Mr. Dunn's District	10,020	807	54 8
Mr. H. Hancox's District	14,463	807	72 4
Mr. Shelswell's District	12,258	807	54 0
Mr. Smith's District	13,248	807	74 0
Mr. Best's District	11,763	848	77 4
Mr. W. M. Hancox's District	11,763	848	76 0
Mr. Harthill's District	16,789	5,585	97 8
Mr. Gibbon (for Workhouse)	About 600	—	130 0

Vaccination is the only extra allowed.

The Union Workhouse.

This institution affords room for 824 inmates. The number now in the house is about 600. Aged men and able-bodied women form the chief of the numbers of the adults. The diet of the inmates is a little above the regulation standard. In the sleeping apartments the cubic space allowed to the healthy adults is 300 cubic feet, and to the sick 500. The ventilation of the wards and rooms is free and simple. The air enters the wards from without by free openings near the floor, and escapes at the ceiling by openings in the centre guarded with perforated metal. Ventilation is also effected by means of the windows. A projecting section is allowed inwards from the centre of the window: this projection, which opens above obliquely, and allows the air to ascend to the ceiling, something like the hopper plan of ventilation by Mr. Peter Hinckes Bird, works well, and is worthy of further application. The ventilation was reported to me as most efficient, and I have every reason to believe the statement. I also learned that no epidemic disease had ever originated in the house, and that the numerous cases of epidemic disorder brought into the house do not spread, but appear immediately to come under control. (a)

(a) In so far as I could see, the arrangements of the Workhouse were very good; but I regret that in the course of my round with the Master, who was most anxious to show me every part, the chairman of the Board of Guardians interposed, and objected to my further progress. According to his view, a visitor might see, but ought not to make any comment on what was to be seen; and as I could not bind myself to any promise of

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CLUB PRACTICE.

Club practice prevails extensively. The principal clubs are the Odd Fellows, Foresters, Hearts of Oak, and various small benefit societies. Burial clubs are very numerous. The pay to Medical men in the club practice varies from two shillings per head per annum to five. The Odd Fellows and Foresters are those that pay best. There are several other societies of a more general character. For instance, there is a Wolverhampton branch of the "Liverpool United Legal Friendly Burial Society," of which society there are upwards of 26,000 members. There is also a branch of the "Liverpool Victoria Friendly Society," which society pays its Surgeons the munificent sum of two shillings for the certificate of the health of a joining member, and fines them £1, with dismissal for any subsequent offence, if it can be proved that they have admitted any person who was labouring under any disease or complaint at the time of examination. A rule somewhat similar belongs to the Burial Society. "The People's Universal Life Assurance and Sick Fund Friendly Society" holds its chief office at Wolverhampton, and allows three shillings per head for the year's Medical attendance on members. It also allows a special fee, varying from two shillings and sixpence to ten shillings and sixpence, for special examinations for assurances, the fee being regulated by the amount of assurance. Lastly, there is a "United Life Assurance and Sick Benefit Society," which has an "infantile assurance branch," for securing to children fixed sums at various ages, on payment of one penny per week.

LITERARY AND SCIENTIFIC INSTITUTIONS.

There is no literary and scientific institution at present in Wolverhampton, but there is a school of art, and a reading-room fitted up with great taste, and containing a large collection of books.

CHARITABLE INSTITUTIONS.

There are various charitable institutions in Wolverhampton, viz., Mitchell's Charity, the Free Grammar School, Thorneycroft's Charity, the Orphan Asylum, and the Ragged Schools.

The *Free Grammar School* was founded in 1508 by Sir Stephen Jenning, Lord Mayor of London, and a native of Wolverhampton.

Thorneycroft's Charity.—Mr. Thorneycroft was the first mayor of Wolverhampton, in 1848. To signalise his year of office he invested £1000 in the name of trustees, who have re-invested it at 5 per cent.; the income is applied annually on November the 9th in providing blankets and flannels for the poor of the borough; tickets for the distribution are given by the mayor, aldermen, rector, and trustees.

The Wolverhampton *Orphan Asylum*, situate on Goldthornhill, was instituted on April 1, 1850. It is a noble building, commanding, I think, one of the finest prospects that could be seen from any centre. The asylum receives at the present time 80 children, namely, 58 boys and 22 girls. The founder of it was Mr. John Lees, who left to it a legacy of £1800. The charity is intended for those children who have either lost both parents, and have no friends to support them, or for children who have lost their father, and whose mother is unable to support them. No diseased, deformed, or infirm child, or child of unsound mind, or a child born out of lawful wedlock, is deemed eligible. Not more than one child of the same parents, father or mother, is allowed to be on the foundation at the same time; and no child who has been at any time in the union or parish workhouse, or on whose behalf parochial aid has been received (except for temporary relief) is admitted. Fatherless children, of either sex, wherever resident, without means equal to their support, whose parents have been in respectable circumstances, are considered to have a special claim to the benefits of the charity.

Mr. and Mrs. Marsh, the Secretary and Matron, were so kind as to show me every part of this building, with great care. Some parts of it are as yet incomplete, and large dormitories are undergoing preparation, but the arrangements are most perfect. The school-rooms are spacious and well ventilated. The diet is of the best description; and the children seemed one and all to be as happy as they were healthy. The only objection I could see, in fact, was in the dress. It was a fancy—I had almost said a caprice—of the benevolent founder to introduce the Blue-coat School dress; and this has been done, surely not to the advantage of the charity. In an institution of this kind it is time for all badges of dress to be removed, otherwise the charity is clothed in livery and lost in its purity.

The Ragged Schools.

The ragged school is held in a plain, but rather large, building. The land on which the school is erected was presented by the Duke of Sutherland, the late Mr. Thomas Perry having surrendered some leasehold interest to allow the scheme to proceed. The object of the schools is to reclaim and instruct destitute and neglected children of both sexes. A master and mistress reside on the premises, and the schools are open on every day, except Saturday, from two o'clock until four in the afternoon, and from seven until nine in the evening. I found the children at work in a large schoolroom, and for the character of the school the arrangements seemed very good. They would compare well with those of the London ragged schools.

SANITARY CONDITION OF WOLVERHAMPTON.

Population.

The Poor Law Union includes four townships, with a population, in 1861, of 126,894. The true borough of Wolverhampton, or municipality, had, in the same year, a population of 60,838; while in the more extended or Parliamentary borough, in which is classified four large parishes, viz., Bilston, Sedgely, Willenhall, and Wednesfield, the population amounted to 147,646. The increase of population in the last few years has been very great. In the year 1831 the Parliamentary borough had a population of 68,508; in 1841 this had increased to nearly 95,000; in 1851 it reached 119,748; and from 1851 to 1861 27,898 persons were added. The people are now lodged in the borough in about 13,000 houses. In the first years of this century this number represented the actual population.

Value of Life.

The following tables from the Registrar-General's Returns, previously described, supply full information as to the value of life in Wolverhampton:—

Average Annual Rate of Mortality in Wolverhampton from all Causes, at different Ages, to 100 *Living, during the Ten Years* 1851-60.

	Males.	Females.
All ages	2·845	2·673
Under five	11·022	9·937
Five to ten	1·017	·925
Ten to fifteen	·564	·489
Fifteen to twenty	·638	·582
Twenty to twenty-five	·778	·845
Twenty-five to thirty-five	·907	·969
Thirty-five to forty-five	1·364	1·282
Forty-five to fifty-five	2·096	1·593
Fifty-five to sixty-five	3·669	2·925
Sixty-five to seventy-five	7·456	6·619
Seventy-five to eighty-five	15·753	15·563
Eighty-five and upwards	26·600	22·838

The value of life in Wolverhampton, as compared with all England, is, for males, 2·845 against 2·305, and for females, 2·673 against 2·132.

The mortality of children under five years of age is alarming: it stands as 20·959 per cent. against 13·517 for England altogether; but it will be instructive to give the facts entire.

Wolverhampton and England.

Relative Mortality per cent. at different Ages, including both Sexes.

	Wolverhampton.	England.
All ages	5·518	4·437
Under five years	20·959	13·517
From five to ten	1·942	1·693
,, ten to fifteen	1·053	·994
,, fifteen to twenty	1·220	1·407
,, twenty to twenty-five	1·623	1·736
,, twenty-five to thirty-five	1·875	1·949
,, thirty-five to forty-five	2·646	2·463
,, forty-five to fifty-five	3·689	3·316
,, fifty-five to sixty-five	6·594	5·786
,, sixty-five to seventy-five	14·075	12·399
,, seventy-five to eighty-five	31·316	28·161
,, eighty-five and upwards	49·458	59·964

that nature, I left. A stranger, in making inspection by courtesy, has no alternative in a position so painful except to forbear pledging himself to any specific course. He cannot walk blindfolded, and there is an end of that question. But it is a great point whether such a policy of exclusion is sound. I think it is not. If an inquirer speak falsely, how easy is it to show his falsity by reference to the data. If he speak correctly, of what use is it disputing his truth; and how much more important to remove the causes that have called forth his criticism! I have felt it right on all occasions not to do more than simply ask permission to see; and in every case, except the one above-named, the most perfect liberty has been given to me; nay, in many cases I have been invited—owing to the very independence with which these papers have been written—to inspect institutions which claimed to be considered as open to criticism in every form. The idea of exclusion, in fact, suggests, rightly or wrongly, the further idea that something exists which would not bear the light.

It will be seen from this table that the value of life in Wolverhampton is below the average up to the age of fifteen; from fifteen to thirty-five it is above the average; from thirty-five to eighty-five it again sinks, but appears to rise at eighty-five and upwards: this latter appearance, however, probably is delusive; it may be due to the circumstance that there are proportionately a smaller number of persons at that advanced age left to die in Wolverhampton.

The excessive mortality of children in this English town demands serious investigation. The remarks made in my last paper relative to the prevalence of syphilis will account in the main for the mortality. Why the value of life should rise from fifteen to thirty-five I cannot explain; its fall during the advancing years of manhood is more easily accounted for, as arising from overwork, and destruction of the organism from irregular life, amongst the lower classes. The subject is further elucidated in the subsequent tables showing causes of mortality.

Mortality from Different Causes.

The average annual rate of mortality in Wolverhampton from all causes to 1000 persons living is 28, or three above the average of Staffordshire as a whole. Excepting Manchester, St. George's-in-the-East (London), and Leeds, there is no town in the kingdom that presents a higher death-rate. The fluctuations from year to year are very remarkable. Calculating the population as numbering at present 63,000, the rate of mortality in 1863 stood as 28⅔ per 1000, by the side of 24·8 per 1000 in 1862.

Average Annual Mortality in Wolverhampton from Different Causes to 100 *Living, from* 1851 *to* 1860.

	Males.	Females.
All causes	2·845	2·673
Typhus	·136	·137
Cholera, diarrhœa, and dysentery	·185	·171
Other zymotic diseases	·413	·419
Cancer	·015	·041
Phthisis	·227	·254
Scrofula, tabes mesenterica, and hydrocephalus	·035	·072
Disease of brain	·343	·313
Disease of heart, and dropsy	·117	·125
Disease of lungs	·547	·452
Diseases of stomach and liver	·103	·098
Diseases of kidneys	·025	·009
Violent deaths	·184	·061
Other causes	·465	·514

Death at Different Ages.—Year 1861.

Ages.	Male.	Female.
Total deaths	1473	1303
Under one year	464	391
Under five years	782	691
From ten to fifteen years	26	21
From twenty to twenty-five years	46	47
From twenty-five to thirty-five years	69	94
From thirty-five to forty-five years	87	71
From forty-five to fifty-five years	72	61
From fifty-five to sixty-five years	117	75
From sixty-five to seventy-five years	124	92
From seventy-five to eighty-five years	52	61
From eighty-five to ninety-five years	15	18

Births Compared with Deaths of Males and Females.—1861. *Males*, births of, 2601; deaths, 1473; births over deaths, 1128. *Females*, births, 2546; deaths, 1303; births over deaths, 1243; total births, 5147; total deaths, 2776; total births over deaths, 2371.

1863.—(*Municipal Borough.*)

Number of births during the year, 2552; number of deaths during the year, 1804; excessive births over deaths, 755.

Water Supply.

The water supply is from two sources, from wells and from the supply of the Wolverhampton New Water-works Company, founded in 1855. The water of the town naturally supplied is abundant and good; in summer it is very cold, and in all seasons is well charged with gas, and is bright and sparkling. The company's supply is derived from a brook at Cosford, in the county of Salop, nine miles from Wolverhampton; this is the main source, but supplementary supplies are pumped from borings through the red sandstone at Tettenhall and at Goldthorn Hill. The water is conveyed through iron pipes to a reservoir at Tettenhall, which holds about fourteen millions of gallons; it is pumped from Tettenhall into the town. On Goldthorn Hill is a second reservoir, which takes what the town does not want; this reservoir holds about a million and a-half of gallons, and acts as a store. There is no filtration of the water. The supply pressure is sufficient to cover all the houses, the average pressure being about 60 lbs. The present pumping per year is at the rate of four hundred and thirty millions of gallons.

In many houses there is no ready water supply: the inhabitants seek for it at pumps in the street; water is in this way used over and over again to save carriage. The Board of Health has given orders to several owners of houses having no water supply to provide the necessity.

The character of the water supplied to Wolverhampton may be gathered from the subjoined analyses:—

Analyses of Wolverhampton Water from Various Sources, showing Amounts of Organic and Inorganic Matters—and the Hardness.

	In Grains per Gallon.			
	Inorganic Matter.	Organic Matter.	Hardness before Boiling.	Hardness after Boiling.
Ruckley Brook	10·84	2·12	10	—
Neachley Brook	22·02	4·26	19·6	—
Cosford Mill-stream	14·52	2·76	13·6	—
Werf	16·04	2·92	12·6	—
Goldthorn-hill	20·51	3·00	16·6	—
Tettenhall	20·04	3·08	17·9	—
Tap at "Swan Inn"	20·67	2·4	17·2	—
Well at High-green	45·22	16·8	37·0	—
Well at Horseley-fields	41·72	10·48	31·5	—
Causeway pump	59·08	25·0	49·5	—
Town well Told	37·58	8·94	30·5	—
Smestow River	16·06	2·1	11·2	—
River Penk	17·93	4·8	15·5	—
Willenhall, "Black Boy Tavern"	53·12	2·8	17·11	8·55
Bilston	127·2	6·08	27·33	5·44

Analyses of Waters from the various Sources of Supply of the Waterworks Company.

	Neachley Brook.	Ruckley Brook.	Cosford-mill Brook.	River Werf.	Goldthorn-hill	Tettenhall.
	Grs. per gal.	Grs. per gal.	Grs. per gal.	Grs. per gal.	Grs. per gal.	Grs. per gal.
Silica	0·5400	5·400	0·3500	·774	0·380	0·2200
Carbonate of lime	9·8480	10·500	10·0171	5·135	14·500	11·4000
Sulphate of lime	9·6430	9·788	1·1650	3·874	2·801	0·7518
Chloride of magnesium	—	—	—	—	0·515	—
Carbonate of magnesia	—	—	0·7077	3·613	11·373	0·2742
Chloride of potassium	0·3775	·3775	0·1359	0·525	0·553	0·4454
Chloride of sodium	0·7283	0·7283	0·6351	0·691	0·5645	1·1161
Carbonate of soda	—	·0887	—	1·405	—	0·8321
Total	21·1348	22·0225	13·0108	16·017	20·5108	20·0446
Organic matter	4·160	—	2·7000	2·920	3·0000	3·0800
Floating matter:—						
Organic	0·0353	—	0·118	—	0·170	0·0042
Inorganic	0·1250	—	0·420	—	0·605	0·015
Total	0·1603	—	0·538	—	0·775	0·0192
	Cube in. in a gal. at 60°F.	Cube in. in a gal. at 60°F.	Cube in. in a gal. at 60°F.	Cube in. in a gal. at 60°F.	Cube in. in a gal. at 60°F.	Cube in. in a gal. at 60°F.
Carbonic acid free	4·030	—	5·833	4·131	9·333	7·318
Oxygen	2·375	—	2·227	2·333	2·757	2·757
Nitrogen	6·366	—	6·575	6·436	7·848	6·469

I am indebted to the courtesy of Mr. Lyon Wright, of the Waterworks Company, for the above analyses.

(To be continued.)

Phosphorus Pills in Nervous and Chlorotic Affections.—M. Tavignot, in the neurosis of the lachrymal nerve, which is often mistaken for lachrymal obstruction, has found phosphorus highly useful. He has long been in the habit of using this substance in nervous, chlorotic, and scrofulous affections, preferring it in many cases to iron, iodine, or cod-liver oil. The formula is as follows:—Ol. amygd., 4 grammes; phosphor, 5 centigrammes. Dissolve in the water bath, in a vessel which is full and secured with emery, and then add almond soap, 4 grammes, and 9·8 of an inert powder, so as to divide into fifty pills. Each pill contains $\frac{1}{10}$th grain of dissolved phosphorus, and from two to four should be taken daily.—*Chemie Méd.*, April.

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REVIEWS.

Advice to a Mother on the Management of her Offspring and on the Treatment of their more urgent Diseases. By Pye Henry Chavasse, F.R.C.S., etc., etc. Seventh edition. London: Churchill and Sons. 1864. Pp. 316. Price 2s. 6d.

Popular Medical books demand, as we have often said, quite as much critical notice as books do which are addressed to ourselves. If purely Medical books contain blunders they are coolly discussed, and whatever does not bear the stamp of truth either finds no favour with Practitioners, or after a short trial is quietly dropped. Not so with popular books, whose errors, if any, are greedily absorbed by the public, and are added to that mass of ignorance and prejudices which are the most formidable foes to the Medical Practitioner. Whoever writes for the Profession may say what he chooses; whoever writes for the public should remember that he is one of a body whose reputation should not be compromised. The first fault to be avoided is egotism. Mr. Chavasse is not altogether free from this vice in his account of scarlet fever, where, with much good sense, there are statements which we think egotistical and mischievous. He says he has not lost more than one case of scarlet fever during the last fourteen years, although he has had "numerous" cases, many most severe. He gives rules, of which he premises that "*if the scarlet fever be not malignant*," they will be almost invariably successful. There is great virtue in *if*.

His plan is, during the first four or five days, to keep the room cool; to have the windows open, and admit fresh ventilation; then, when the skin becomes cool, to close the windows, wrap the patient warmly, and take great care against cold for at least a month. Of this part we can speak with unqualified praise. Secondly, he applies a poultice of barm and oatmeal to the throat; but surely other applications we could name are equally efficacious and less nasty? Thirdly, he gives sulphuric acid in the well-known infusion of roses—a practice we entirely commend. "But," says Mr. Chavasse, "my belief is that the sulphuric acid mixture is a SPECIFIC in scarlet fever—as much so as quinine is in ague and sulphur in itch. I have reason to say so, for IN NUMEROUS CASES I have seen its immense value." We will leave Mr. Chavasse and Dr. Charles Witt to fight out the question of the specificity of acids and of ammonia. We will take the liberty of reminding both that scarlet fever, unless of the malignant variety, is a disease which naturally tends to recovery, and that good nursing is of far more consequence than the "specific" of either Practitioner. For food, Mr. Chavasse gives low diet at first, fruits, etc., and denies broths and stimulants. Lastly, he altogether denounces aperients. He says in awful terms, "DO NOT ON ANY ACCOUNT FOR THE FIRST TEN DAYS USE ARTIFICIAL MEANS TO OPEN THE BOWELS." "THE ADMINISTRATION OF PURGATIVES IN SCARLET FEVER IS A FRUITFUL SOURCE OF DROPSY, DISEASE, AND DEATH." Then follows a hazy passage:—"The irritation of aperients on the mucous membrane may cause the poison of the skin disease to be driven internally to the kidneys, the throat, the pericardium (bag of the heart), or the brain." Mr. Chavasse is evidently an accomplished billiard player; he fancies that if a pill be aimed at the bowels it will rebound, hit the skin, knock off the eruption, and pocket it in the bag of the heart. We don't see the sense of Mr. Chavasse's denunciations. What does he mean by a "purgative?" If he means something that shall cause the patient to rise half-a-dozen times to pass watery, griping stools, we agree with him; but as for refusing a simple aperient pill, or teaspoonful of magnesia with lemon-juice, to unload the bowels, we say it is a monstrous and cruel folly. And here is made evident one source of mischief of books of this sort, which only the greatest delicacy and conscientiousness on the part of the writer can avert. Mr. Chavasse—who leaves out, by the bye, all mention of the necessary processes of cleansing and syringing the throat and nose—speaks as if all cases of scarlet fever were alike. As if all patients could bear a starving regimen for the first few days, and as if none might dislike sulphuric acid or require an aperient. He ignores the fact that in many epidemics scarlet fever does not begin with one or two days of chill and languor, but with a sudden attack of vomiting, and that many patients have the headache wonderfully relieved by an aperient. All we desire to say is, that Mr. Chavasse's sentiments about aperients in scarlet fever have a want of breadth and freedom of view about them, and are contrary to those of most practical men of our acquaintance. Give us a box of mild pills and a supply of good Bordeaux wine and cold water, and we would undertake to match the results of any "specific" treatment in any number of cases of scarlatina.

The present edition has the advantage of some practical notes, added by Sir Charles Locock; but, notwithstanding this important aid, it seems to be a little behind the day in some points. For example, Mr. Chavasse says:—"I have known some careful mothers who use no pins in the dressing of their children; they have tacked everything that requires fastening with a needle and thread." We are surprised that Mr. Chavasse speaks of this as the practice of *some* only. Here is another point:—"I know some careful mothers who have accustomed their children after the first few months to do without napkins." The fact is, that the old-fashioned, nasty plan of letting a baby defæcate into a napkin, and lie soaking in its filth till it pleases the nurse to change it, is quite obsolete in well-ordered nurseries. The youngest baby may be *held out* at regular times, and, if healthy, soon will learn to avoid the making nasty messes in napkins.

The remarks on wet-nursing and feeding of infants, and the reprobation of all artificial food for five or six months, savour of theory more than of experience. Few mothers can maintain their baby entirely, and if they do it with difficulty, should lighten the task by a little artificial food. All that is said about children living on milk till they have teeth to eat meat is contrary to general experience. Late development of teeth is an argument for meat.

The recommendation to let slight diarrhœa go on three or four days is hardly safe. "There is no better light for a nursery than the old-fashioned tallow candle." Surely Price's patent candles stink less? Mr. Chavasse supposes that children's legs become deformed because they are put too soon on their feet. We should say, because they have been fed on too sloppy a diet. He decidedly disapproves of perambulators; and, we don't hesitate to say, deserves to be laughed at for his objections. He dislikes fires in bedrooms. He commends singing, but repeats the old-fashioned cry against wind instruments, which are less trying, and equally healthy. The exertion of the lungs is the same; that of the larynx is saved. He advises parents to put on a blister to the throat in croup—a savage remedy. He seems to have a horror of aperients in all shapes, and recommends figs and various messes for the cure of constipation, forgetting that a clean mild pill excites far less irritation than does stale retained fæculent matter. He recommends July and August as the best months for sea-bathing; most of us prefer September and October. He indulges in the wonted sermon about young ladies' evening dresses and balls, and affects to believe that a "considerable portion" of the deaths from consumption are due to such causes. *Quere:* Amongst young women, who die the most often of consumption—they who go to balls with naked shoulders, or the class that don't? Can he prove what he says, that "hundreds die of consumption" from going to balls? He objects to soup for dinner, because the stomach can digest solid more readily than liquid food. He asks "what are the causes of so many young ladies of the present day being weak, nervous, and unhappy?" and thinks that unless great alterations take place the women of England will become physically deteriorated. This is like other complaints made by the *laudator temporis acti*, who forgets that his grandmother said the same in her day, and her grandmother before that.

There is in Mr. Chavasse's work a great deal of very useful information very clearly put; and we may say that the author is generally happy when he gives the common sentiments of the Profession in his own pungent, argumentative way, and less happy, in our opinion, when he introduces pet notions of his own. He is a little too egotistical, too fond of introducing the name of God in largest letters, and, like most popular writers, too finical in his diet rules, though much less so than some of his brethren. Between the two extremes, it is much safer that children should be overfed than underfed; but a strict adherence to the rules of popular Medical books generally causes parents to choose a monotonous, insipid, and insufficient diet, from which the children are saved by their own appetites, or by the good sense of their nurses. Certainly, for older children Mr. Chavasse's diet rules are liberal; and, although we have taken the liberty of expressing our opinion freely on the points in which the work is, in our judgment, erroneous, yet on the whole it is well written, with good sense and high principle, and is a valuable work for a young mother to read.

The Stream of Life in our Globe: its Archives, Traditions, and Laws, as Revealed by Modern Discoveries in Geology and Palæontology. A sketch in untechnical language of the beginning and growth of life and the physiological laws which govern its progress and operations. By J. L. Milton, M.R.C.S. London: Hardwicke. 1864. Pp. 620.

An ambitious book, truly! Beginning with most ancient chaos, when the surface of our earth was an ocean of molten granite seething like the Atlantic in a gale, it gives in popular language an account of each stage of progress and development, both of the globe and of the living beings which inhabit it, and concludes with speculations on the future fate of the earth, and the probability that we shall be swallowed by the sun, and expire in a conflagration. It embraces all human knowledge. Geology, with its kindred science of palæontology, which pre-supposes a thorough acquaintance with the history of the three kingdoms of nature; anthropology and archæology; mythology and tradition wherein lie embalmed the vestiges of the earliest history or the glimpses of the prehistoric condition of our race; the science of language, with its inseparable companion ethnology; Max Müller's researches and Rawlinson's on the early arrow-headed inscriptions; the doctrine of species, with Mr. Darwin's views of the battle of life and selection of species; laws of life; life in the blood; life in the nerves; theories of disease and remedies; life of giants; life of men of genius; life of the waters; life in the stars;—such are the contents of this volume, of which the plan is admirable, but of which the execution adequately would be impossible, unless with the united force of Humboldt, Herschel, and Owen. Much of it is amusing, and gives intelligible pictures of the early history of our globe. There is also much curious information collected regarding the early history and traditions of our race. All of it is readable; and it is highly creditable to a member of our Profession that he should have conceived such a plan, and have accumulated the great amount of information necessary for carrying it out. If we say that he is at times not very deep, and a little flippant, or that his criticisms are deficient in good taste and in force, we point to faults venial and unavoidable. What we do complain of is, that, with multitudes of facts and information at his command, he should occupy a large portion of his space with a hazy chapter or two on the nature of disease, of the vital force, etc., and of the "nerve theory" of life and disease which he holds instead of the "blood theory." Such matter is useless to the public and injurious to us. It is disappointing, too. We look for philosophy, and find "shop." The "Stream of Life" would have been a much better book if the writer had shown his MS. to a "candid friend" who would have pruned it a little, and cut out all those portions which would imply that the author's notions on the nature of disease and vital force, etc., are better than those of his brethren. Mr. Milton's faults are those of taste chiefly. He has imagination and erudition, and we hope will give us other, fuller, and more refined books in time.

An Elementary Text-book of the Microscope, including a Description of the Methods of Preparing and Mounting Objects, etc. By J. W. Griffith, M.D., F.L.S. With 12 coloured plates, containing 451 figures. London: Van Voorst. 1864. Pp. 185.

A capital book. Short, clear in style, logical in arrangement, and containing such a course of instruction, both on the nature of the microscope and on the method of preparing and viewing objects, and this arranged in such order that any intelligent student who sets to work to teach himself, or any Professor who uses it as a class-book to teach others, cannot fail of acquiring or imparting a good systematised mass of microscopic knowledge, and of the general nature of the vegetable and animal kingdoms as well.

The Prescriber's Analysis of the British Pharmacopœia. By J. Birkbeck Nevins, M.D. Lond., etc. London: Churchill and Sons. Pp. 91. Price 2s. 6d.

The Prescriber's Companion. By Alfred Meadows, M.D., etc. London: Henry Renshaw. 1864. Pp. 152.

These are two capital little books, and as it is impossible to say that one is better than the other, and as the plan and contents of each vary somewhat, the best advice we can give our readers is to purchase them both. They are easy reading, and each will yield much more in value than it cost. Dr. Nevins' valuable little work is chiefly, as its name implies, an analysis of the British Pharmacopœia; and its leading feature is a clear and short demonstration of the changes which have been made in it of the ancient-accustomed formulæ. It is very neatly done, although it lacks an index. Dr. Meadows' "Companion" is fuller, and possesses a pretty good index, and contains the British formulæ themselves, without going into the changes which have been made in them from the foregoing ones. It also contains the other drugs in common use, which the compilers of the British Pharmacopœia have not included. Hence any one who desires to know in what respects the new formulæ differ from the old, whether L., or E., or D., will find what he wants in Nevins; but he who cares not for the old L., or E., or D., but wants a good guide to the new British *simpliciter*, will find himself suited by Meadows. And in these hard times it is worth noting that either of them is much handier, cheaper, and more useful to the prescriber than the British Pharmacopœia itself.

Notes on the British Pharmacopœia: showing the Additions, Omissions, Changes of Nomenclature, and Alterations in the various Compound Preparations, with the Doses of those Medicines which are comparatively New. By A. S. Haseldhn, Pharmaceutical Chemist, etc., etc. London: Hardwicke. 1864. Pp. 82.

This book, like those of Dr. Nevins and Dr. Meadows, will be an acceptable guide to the Practitioner, who may desire to know wherein the British Pharmacopœia differs from either of its predecessors. We have looked it through, and pronounce it clear and accurate, and, as the alphabetical order prevails, it is easy of reference.

The British and London Pharmacopœias Compared, with a Posological Table. By George Barber. London: Simpkin and Co. Pp. 38 and 27.

This is yet another handy little book, containing very much matter in small space. It seems easy of reference, but is rather rich in *errata*.

PROVINCIAL CORRESPONDENCE.

EDINBURGH.

March, 1864.

My last contained a laudatory remark upon our climate. I regret to say it cannot now be repeated, as the rain seems never weary, the gutter of fœtid fluid containing an emulsion of every filth imaginable, but by euphuism termed the "water of Leith," is roaring a yellow flood under Stockbridge and disturbing the unused fishing-boats at the harbour. Some regret this rainfall. I do not. The uncleansed streets are receiving their yearly washing; the heaps of filth which accumulate in our neighbourhood and are considered healthy are no longer to be seen, and perhaps fever may diminish in consequence. I had purposed to round this sentence off in a becoming manner, but was called out, and as I passed through Jamaica-street saw every drain-grating piled with fæces, garnished with intestines of fish and other domestic contributions to the welfare of my Profession.

The plan of class-examination being steps to graduation seems to have fallen into abeyance. The extramural school readily took up the idea; but the Professorial body declined to recognise their testimonies in favour of industrious and overwrought students. This must necessarily have affected those who take advantage of the privilege offered by the patrons of the University years ago to admit pupils of the private classes to examination for the M.D. degree. But I would fain hope that the difficulty may be got over, and the rational and, if I may use the term, humane suggestion of Mr. Syme may be carried out ultimately. So far as I have been able to see into Medical education here, but two objects govern teachers and pupils—the one make it their business to teach, the others to learn. I never saw a teacher, however great his eminence, treat a student *de haut en bas*, and certainly never a student take advantage of the great man's kindness, Mr. Syme teaches how to operate for fistula in ano as carefully as he explains how to tie the iliac. Professor Simpson will explain how to use the female catheter with least annoyance to

the patient, and pass on to the most complicated manœuvres in obstetrics. Begbie will spend hours, stethoscope in hand, drilling young ears to the music of the cracked-pot sound; and when we return to the clinical wards, Laycock is there, with many thoughtful faces round a bed, clearing away for them difficulties by showing how an accurate arrangement of details, like the lenses in a microscope, may concentrate light on some obscure disease. His nomenclature has lately been scoffed at a little; but he whom the Oxford undergraduate calls "Mr. Flaccus, a well-meaning, but mistaken Italian gentleman," made this remark:—". . . . ego cur acquirere pauca si possim invideor? Cum lingua Catonis et Enni sermonem, patrium ditateverit et nova rerum nomina protulerit? licuit *semperque* licebit signatum præsente notâ producere nomen." (Please read the next dozen lines, as I forget them; but do not skip): "Multa renascentur, quæ jam cecidére cadentque. Quæ nunc sunt in honore vocabula, si volet usus. *Quem penès arbitrium est et jus et norma loquendi.*"

Mr. Syme has excised a knee-joint successfully. I was going to say something, when my eye caught the "Essay on Diseased Joints" lying before me, an essay which was published when your correspondent had not an articulation, vocal or mechanical. But considering the enmity shown to it for several years, his now performing the operation is the grandest tribute to its merit any one has yet given. In doing so he has not contradicted one word in that remarkable essay; and I also believe it will do away with much bitterness between other great Surgeons. "Even the ranks of Tuscany can scarce forbear to cheer."

Dr. Gillespie has removed the head of the femur, and it should be remembered that through good and evil report of the operation just alluded to he has stedfastly supported it.

They tell me that Professor Simpson is publishing a work on acupressure. I have seen this plan tried and succeed, and I can only offer my affidavit that it stops bleeding, saves a great deal of trouble, and that whoever cuts my leg off is perfectly welcome to substitute pins for ligatures; indeed, I think that I should prefer them. I wish to ask a question—How many resident Medical officers in Hospitals die every year? The mortality in Scotland has been very great. In one Infirmary, I believe, *nine* have died in succession of fever. And, alas! how many of our clinical clerks die of it; and of those self-abnegating students who trudge the Cowgate and Westport, spend their money, their time, their lives, the happiness of the homes they shall never more see, for dispensary patients? I intended to mention some names, but they are too many. No one will ever convince me that Providence intended such a waste of talent and good. Let the dead bury their dead. If Edinburgh *will* have fever, let her pay hardy, strong men to doctor her. If students must learn that "they can only watch the symptoms," let them find out that suggestive fact in the Infirmary, surrounded by proper means for reducing the chances of contagion to a minimum.

Mr. Mackintosh has favoured the public with a pamphlet on "Mad Doctors, etc." As you are aware, he lost his last action against Drs. Lowe and Smith, of Saughton Hall Lunatic Asylum, where he was confined several years ago. His case is a good instance, I believe, of how early and judicious surveillance and Medical treatment may restore the reason, but it is also a warning to Medical men not to sign certificates of lunacy. I do not believe one person connected with that case has not suffered more or less by it, as Mr. Mackintosh seems determined that the memory of an event in his life which all would wish to forget shall be kept green. He prosecuted his lawyer, Mr. Hugh Fraser, W. S., to whose firmness and kindness he probably owes his life, and most certainly his restoration to sanity. Mr. Fraser's well-known benevolence and sensitiveness of the feelings of others were too well known for any one to imagine that he had dealt ungently by any young man. No one knows better than your correspondent of many instances in which this gentleman has befriended young men, simply because they needed help. Well, Mr. Mackintosh lost that action, and another against Dr. Graham Weir. I do not generally suffer from nervousness—a Dutch gardener's pulse is as difficult to quicken—but when at the end of the trial the Lord Justice General Macneil gave Mr. Mackintosh a bit of his mind, I felt as if about to be hung, and sincerely sorry for Mr. Mackintosh. There have been ever so many trials since, and all against Mr. Mackintosh, but still he writes and publishes. Though successful in their defence, all his Doctors must have lost money, and the single fee they may have received for their opinion burnt a large hole in their pockets. On Wednesday, war raged in the Medico-Chirurgical Society after a paper by Dr. Andrew Wood upon "Medical Education." I had hoped the question had been settled, but here are two Members of the Medical Council disputing about the very rudiments of the subject.

Dr. Laycock declared there had been no substantial increase in *subjects* of study during the last thirty years, and that the Hall and College at that time required, with two exceptions, as many courses as Edinburgh for the degree. But whereas they would be attended in two years, in Edinburgh are extended over four years. He said the subjects of study, judiciously varied, strengthened the intellect. He would wish a moral training for the student, so that he would love truth, hate bigotry, be ready to learn, and slow to abuse. Prof. Laycock thought two new courses might be added to the curriculum for the higher honours. One is the history of Medicine, and, in mentioning it, he paid Dr. J. W. Begbie a compliment, who gives a course in summer. The scandalous results of recent trials have shown the necessity of a thorough scientific knowledge of Medical psychology and mental diseases. The deliberate falsehood of Mr. Syme's "student" was rated in such a way that there is great curiosity excited to know the young gentleman and hear him count to 100.

Any one who knows students must at once see the danger of encouraging a contempt for the rules, which they must follow with greater or less exactness; but still there was much truth in Professor Syme's lecture; and the only remark I can make upon it is the one you sometimes hear from a patient listener after a facetious friend has told him a Joe Miller—"I *think* I've heard something like that before." Talking of Miller, his namesake, our Professor of Surgery, is about to open the Chalmers' Hospital here. It is a pretty little place, and I believe well arranged. Dr. Halliday Douglas, learned in heart sounds, is the Physician.

Prince Alfred must be rather tired of being King of Edinburgh. He is advertised, run after, and worshipped in a way which only a nation who cultivate "*booing*" could accomplish in the time. As he attends Playfair's ten o'clock lecture, his admirers congregate about eleven. Shakspeare said something about *Divinity* hedging a *King*—why, I saw a whole class of divinity students hedging a Prince the other morning. Times are looking up for Royalty. *Vivat Regina!*

GENERAL CORRESPONDENCE.

PROPOSED TESTIMONIAL TO MR. GRIFFIN.

LETTER FROM MR. W. PROWSE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Will you be good enough to find room in your journal to inform the Poor-law Medical officers throughout the country that a subscription has been set on foot by me for a testimonial to Mr. Griffin for his long-continued and unwearied exertions in our behalf? It is now nine years that he has laboured with such unremitting attention to our cause. Every one of us must admit that he deserves our highest commendation, and is worthy of a gratitude that should show itself in a substantial manner. We must open our purses as well as our hearts, and present him with some fitting acknowledgment for all the trouble he has taken and the work he has so willingly performed on our account. This is our plain duty, as true and honest men—a duty that we owe not less to ourselves than to him, and we shall be much to blame if we disobey the voice of conscience in this matter, and prove ourselves neglectful of an obligation so imperative. I am, &c.,

WM. PROWSE,
Surgeon to the Union House and District.

Amersham, Bucks, April 7, 1864.

N.B.—Subscriptions to the Poor-law Medical Reform Association should also be forwarded as early as possible to Mr. Griffin.

[The proposal of Mr. Prowse will meet, we doubt not, with warm support from the Profession. Few men have devoted themselves so disinterestedly and have laboured so perseveringly in the interest of their Medical brethren as has Mr. Griffin. We shall be most happy to receive subscriptions to the Griffin Testimonial Fund at the office of the *Medical Times and Gazette*, 11, New Burlington-street.]

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REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

THURSDAY, MARCH 2.

Dr. OLDHAM, President, in the Chair.

THE following gentlemen were elected Fellows of the Society: F. J. Butler, M.D., Winchester; Thomas Chambers, L.R.C.P., London; Edward Fussell, M.B., Brighton; Samuel N. Harrison, Patrington, Hull; Edward Jackson, M.B., Sheffield; W. N. Price, Esq., Leeds; A. G. P. Wilks, M.D. Cantab., Guy's Hospital.

Dr. HICKS read a report on two cases of monstrosity exhibited by himself and Dr. Gervis at a former meeting of the Society.

CASE OF FATAL UMBILICAL HÆMORRHAGE IN AN INFANT.

Dr. GRAILY HEWITT related the particulars of a case of hæmorrhage from the umbilicus. The mother of the patient, a weak, ill-nourished individual, was delivered of a female child at about the eighth month, in the British Lying-in Hospital. She had previously lost a child, a few days old, from bleeding at the mouth, ears, and rectum. At birth the infant was weakly and the circulation languid; moreover, in the course of a few hours, the child became jaundiced. The second day after birth a very slight appearance of blood was noticed at the insertion of the cord. On the third day hæmorrhage set in, and when seen by Dr. Graily Hewitt had lasted for upwards of an hour. The child was then excessively pale and moribund. Further loss of blood was prevented by application of a ligature *en masse*, but the infant died about an hour afterwards. The blood exuded as from a sponge, at the junction between the cord and the abdominal wall. Post-mortem examination showed great congestion of the liver, and slight hæmorrhagic effusion into the peritoneal cavity. There was no ulceration of the stump of the cord inwards through the abdominal wall. Dr. Graily Hewitt alluded to a series of cases of this affection published by Grandidier. In a large proportion of them jaundice was observed, as in the above case; and in a few the existence of a hæmorrhagic diathesis was well marked. The treatment carried out in the above case had been found most successful in the hands of others—namely, the use of the ligature *en masse*. The mortality from this affection had been found to be very high—namely, 83⅓ per cent.

A paper, by W. TYLER SMITH, M.D., was read on

EIGHT ADDITIONAL CASES OF OVARIOTOMY.

The notes of twelve cases have already been presented to the Society.

Case 13.—*Multilocular Tumour of the Right Ovary—Operation—Recovery.*—E. H., aged 33, unmarried. Abdomen forty-two inches; growth rapid. Operation, June 16, 1862. Incision, four inches. Tumour composed of two principal cysts, full of purulent matter. Cysts tapped first. Pedicle secured by silk, divided and allowed to drop into the pelvis. Tympanitis and sickness severe on third day; relieved by calomel, turpentine, etc.; iced water and milk. In October following quite well.

Case 14.—*Multilocular Tumour of Right Ovary—Ovariotomy—Recovery.*—Mrs. B., aged 54. Weak and emaciated; size great. Has lived in West Indies. Operation, October 13, 1862, under chloroform. Extensive adhesions on right side. Numerous cysts with gelatinous contents. Large incision. Pedicle allowed to drop into pelvis. Wound healed by first intention. Convalescence tedious. Large doses of opium, to which she had been accustomed, necessary. Now in better health than she had been for years.

Case 15—*Multilocular Tumour of Left Ovary—Operation—Recovery.*—E. B., aged 32. Much emaciated. Measured forty-two inches round. Pedicle returned into pelvis after operation performed in usual way, under chloroform. At night, enema with laudanum, the only medicine given. Took stimulants early. Excellent recovery in less than a month.

Case of Ascites with Malignant Tumour, supposed to be Ovarian—Operation—Death.—Patient 43 years of age; had had thirteen children; youngest fifteen months old. Had gradually increased in size since birth of child. Measured forty-eight inches round. No unusual pain. Pulse good; not much emaciated; complexion not like that seen in malignant disease; considerable œdema of abdominal walls. A tumour, believed to be ovarian, felt through ascitic fluid on left side. Incision being made, a tumour was found firmly adherent to abdominal walls. It was removed, as also the ascitic fluid. Other tumours of malignant character then found connected with intestines and other structures. Patient never rallied. Death four hours afterwards. Numerous cancerous tumours found in omentum, etc. Ovaries diseased, but small.

Case 16.—*Multilocular Tumour of Left Ovary—Operation—Recovery from Operation—Death Three Weeks after from Bronchitis.*—General health bad; subject to bronchitis. Operation, April 15, 1863. Strong adhesions on left side. Pedicle returned into pelvis. At end of fortnight sat up daily. She was removed on May 5, at her own request, to the Hospital. She ate a good breakfast on May 6, but died almost suddenly late on the same day. Extensive emphysema of both lungs, and thickening of bronchial tubes. Pedicle and ligature enclosed in a sac formed by coagulable lymph.

Case 17.—*Multilocular Cyst of Left Ovary—Operation—Recovery.*—Mrs. B., aged 43. Enlargement of the abdomen noticed for six years. Operation, June 26. Tumour, one large cyst, with gelatinous contents. Adhesions considerable. Pedicle treated as in the foregoing cases. Left for the country on July 30.

Case 18.—*Multilocular Cyst of Left Ovary—Operation—Recovery.*—Tumour growing for eighteen months; measurement forty-six inches. Tumour very adherent. To a small vessel of intestine wounded in separating the adhesions a metallic ligature applied. Pedicle treated as above. No bad symptoms.

Case 19.—*Multilocular Colloid Tumour of the Left Ovary—Operation—Death on the Sixth Day.*—Miss S., aged 58. Tumour growing a year. Tapped a month previously. Tapping now again necessary; and a fortnight afterwards, having again filled, ovariotomy was decided on. Many adhesions. Tumour made up of large masses of colloid. Pedicle very small. Some hæmorrhage from tearing the pedicle, and it was secured with great difficulty. The patient rallied after becoming very exhausted, and took food well. On the fifth day bad symptoms set in; and death occurred on the following day.

Case 20.—*Multilocular Tumour of Left Ovary—Operation—Recovery.*—Miss M., aged 39. Tumour growing two years. Much emaciated from bronchitis. Perfect recovery from the operation, which was performed in the usual way. Is now in excellent health.

The author remarked that of the 20 cases 16 had recovered, or 80 per cent.; that is, excluding Case 16, in which death occurred from bronchitis three weeks after operation; including this case the cures were 75 per cent. He had now returned the pedicle into the pelvis in 10 cases, and with most satisfactory results. In all the poor women operated upon the disease incapacitated them from work; in the others, the operation could not have been delayed without risk to life.

The PRESIDENT considered that in cases of doubtful diagnosis the operation of tapping was advisable, as preliminary to the other operation.

Dr. TYLER SMITH thought that in the case alluded to by the President no positive information would have been obtained by tapping. The diagnosis was extremely difficult in some cases. In the particular instance in question there was extreme œdema of the abdominal walls, and he thought it probable that such œdema might be found in other cases to be associated, as it was in this case, with malignant disease. In answer to a question from Mr. Cumberbatch, Dr. Tyler Smith stated that he preferred non-metallic ligatures for securing the pedicle.

Mr. SPENCER WELLS said that the question raised by Dr. Tyler Smith as to the mode of securing the pedicle was one of the most important which could be considered by the Society. He had followed Dr. Tyler Smith's practice in five cases. From the first no conclusion could be drawn, as the patient would probably have died had the pedicle been secured in any other manner. Two of the other four had recovered more quickly than they probably could have done under any other proceeding, although in both there was more evidence of sthenic peritonitis than was often seen where the clamp was used. In two other cases the patients died of diffuse peritonitis, and he (Mr. Wells) thought they might have done better if the clamp had been used. In one no post-mortem could be made. In the other, the ligature and the tissue it enclosed were surrounded by a sort of capsule formed by two

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coils of small intestine adhering together and to the pedicle by recent lymph. It was a matter of some doubt whether such a condition might lead eventually to intestinal obstruction, and be more objectionable than the adhesion to the abdominal wall which followed the clamp. His (Mr. Wells') own impression of the three modes of dealing with the pedicle was, that when the pedicle was long the clamp was the safest and best mode; but that when the pedicle was short, it was better to cut off the ligatures short and return the tied pedicle than to leave the ends of the ligature hanging out through the abdominal wall. In reference to the question of the diagnosis of cancer, he had never met with a case of cancer in the abdomen which had not been diagnosed without operation. The diagnosis of cancer of the peritoneum was not difficult. In one case cancer of the right kidney was easily recognised, and was found after death to weigh 17 lbs. In two other cases of cancer of the ovary—one of the left ovary and one of both ovaries, with a large quantity of ascitic fluid—the diagnosis was easily made out after the preliminary tapping suggested by the President, and was proved to be correct after the death of the patient. In neither of these cases was there much œdema of the abdominal wall, and he (Mr. Wells) differed completely from Dr. Tyler Smith in his opinion that this œdema could assist us in making out whether an abdominal tumour was innocent or malignant.

Dr. Graily Hewitt mentioned a case in which he had observed very extensive œdema of the abdominal parietes, together with great œdema of the lower extremities, and in which the abdominal tumour present, and which reached above the umbilicus, was constituted by the urinary bladder enormously distended with urine. It was evident, therefore, that œdema of the abdominal walls could not be depended on as a sign of malignant disease.

Dr. J. Braxton Hicks wished to ask Dr. Tyler Smith whether he had found any subsequent untoward result from the dropping in of the ligature. Although this practice had been shown by the results to be apparently unattended with danger, and possessed many advantages, still the ligature had possibly to be accounted for at some future day. He considered the perfection of ovariotomy would be nearly gained by doing without any ligature at all. He believed it would be possible, by firmly compressing the pedicle for an inch or so by a serrated clamp or some such apparatus, to condense the tissues so firmly as to completely prevent bleeding. The pedicle could then be dropped into the pelvis. He threw out this suggestion, because he had found in examining tissues after the use of the écraseur that it was nearly impossible to unravel them; and he thought if the width of the compressor were increased, no bleeding would result.

In reply, Dr. Tyler Smith stated that he had every reason to be satisfied with the results of the plan of dropping the pedicle into the pelvis after securing it by ligature, and he could with confidence recommend it as being probably safer and certainly more convenient than the other plan. He should be very glad to have an instrument such as that suggested by Dr. Hicks for dividing the pedicle if it could be relied on for preventing hæmorrhage.

THE PATHOLOGICAL SOCIETY.

Tuesday, March 15.

Mr. Prescott Hewett, President.

(Continued from page 407.)

Dr. Barker brought forward a specimen of

HYPERTROPHY OF THE HEART.

The left ventricle was the one chiefly enlarged, and Dr. Wale Hicks had found that many of its fibres had undergone fatty degeneration. The heart weighed twenty-five ounces; he brought the specimens, not on account of the extent of the disease, but on account of the peculiarity that the patient had had no symptom of heart disease until five weeks before his death, and after admission there were no very positive symptoms. There were no sounds, the apex could not be felt, and there was no pulse. There was no obstruction, and the kidneys were healthy.

Mr. Ernest Hart exhibited a specimen of

DEPRESSED FRACTURE OF THE SKULL FROM A PATIENT WHO HAD HAD NO HEAD SYMPTOMS.

It was removed from the body of a patient who was thrown from a coach twenty-one years ago. The outer table of the parietal bone was fractured, and driven inwards in the centre of the fracture. The internal table was not broken to nearly the same extent, but was fractured in the centre. Repair had taken place to a very considerable extent, and as there had been no motion, there was no callus. The history gathered from the Surgeon who attended the patient at the time of the accident was to the effect that the symptoms had been very slight. He was insensible for half-an-hour. Then he slowly recovered, and had no further symptoms. Mr. Hart added that there were two similar specimens in the museum at Fort Pitt.

The President said there was one also in the museum of the College of Surgeons.

Mr. Teevan remarked that he had made a number of experiments which all clearly showed that when a foreign body passed completely through one side of the skull the aperture of exit was always larger than the aperture of entry, and this, too, whether the force passed from within or from without. Mr. Hart's specimen seemed apparently to contradict this proposition, inasmuch as the line marking the boundary of the fracture in the external table was much more extensive than the corresponding line marking the fracture in the internal table. But it must be remembered that in this case the head merely struck the ground, and that consequently the latter had only driven inwards a portion of the skull, and had not itself passed into the interior. The case, therefore, was entirely different from that of the passage of a foreign body into the head.

Dr. Crisp exhibited

MICROSCOPICAL PREPARATIONS OF THE OXYURIS VERMICULARIS IN MEN,

for the purpose of showing the extraordinary number of eggs in this entozoon, and more especially to call the attention of the Society to the mode of expulsion of the ova of the worm, which he believed he was the first to notice. When the female worms are expelled from the body, a white spot is seen with the naked eye, about a third the length of the body from the head. On placing the worm under the microscope, this white spot is found to be composed of a pile of eggs, which are expelled by an artery-like contraction of the oviduct. This process of expulsion is often continued for three or four hours, when the oviduct is nearly emptied. Assuming that the ova in each worm amount to 5000, the number in some persons would reach to a million or more.

Dr. Crisp also exhibited specimens of the

STRONGYLUS FILARIA IN THE LUNGS OF THE LAMB AND THE CALF,

with a wax cast of the lungs of the former for the purpose of showing the immense number of these parasites, which block up the air-tubes, and in this way occasion the death of a great many lambs and calves in this country. Dr. Crisp said that in a few instances he had observed the same process of expulsion of the ova in the strongylus filaria as in the oxyuris, in a few instances; but there was this curious difference between the eggs of the two worms, that whilst in the former the young were generally matured, in the latter no appearance of an embryo was visible.

Dr. Gibb exhibited a drawing of

ACUTE EPIGLOTTIDITIS,

occurring under his care in January last, in a gentleman, aged 31, who had phthisical disease. The voice had been gradually going for ten days, and two days before he was seen by Dr. Gibb, dysphagia, with fluids, set in. The laryngoscope revealed the epiglottis enormously swollen, projecting upwards and backwards in the form of a bright crimson red tumour, like an immense plum. It was immovable unless in the movements of the tongue, and could be seen readily at the back of the mouth without even introducing the laryngeal mirror. The larynx was clear and free from disease, the inflammation and swelling being confined to the epiglottis. Under treatment, local and constitutional, the more urgent symptoms had subsided in five days, and a good recovery ensued.

The Acorus Calamus as a Preventive of Insect Depredations.—Dr. Schultes observes that much use was made by the older naturalist travellers in the East of the powder of the root of *acorus calamus* as a preservative against insects, and that he has found it of the highest utility for the protection of herbaria against the ravages of the *annobium panniceum*. Some of the powder is to be occasionally strewed over the plants, and this insect, beetles, etc., at once desert the spot wherever its smell is perceptible. For the same reason it is a valuable means of preserving zoological collections from insect depredations.—*Buchner's Repertorium*, 1863, No. 8.

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OBITUARY.

DR. ROBERT MAYNE.

The Medical Profession in Dublin has just sustained a very heavy loss—a loss which has called forth in Ireland as lively an expression of sympathy as did the untimely death of Dr. William Baly, some years since, in the English Metropolis. On Thursday, April 7, Dr. Robert Mayne fell a victim to that deadly enemy of the Irish Physician—typhus fever. Like Baly, Dr. Mayne won his way to eminence by the sheer force of innate work and energy, and had only during the last few years begun to reap the fruit of his early labours, when suddenly he is taken from among us. As a writer, Dr. Robert Mayne will be probably best known out of Ireland as the author of the admirable article on the "Optic Nerve" in the *Cyclopædia of Anatomy and Physiology*, to which he also contributed the article "Perinæum." His numerous papers in the *Dublin Quarterly Journal of Medical Science* and *Dublin Hospital Gazette* gained for him the great reputation as a practical Physician; of these, he himself considered those on "Pericarditis," "Cerebro-Spinal Arachnitis," and "Dysentery" as met with in Irish Workhouses the most valuable, and we believe his judgment to have been correct. But of late years his numerous contributions to the Pathological Society of Dublin (of which he was President at the time of his death) proved him to be a Physician remarkably endowed with the power of observation as well as a profound pathologist. As a teacher, Dr. Mayne was eminently successful; in lecturing, his language was clear, and his method of dealing with his subject exhaustive; his style, although quite unstudied, was vigorous, free from dogmatism, and full of that earnest stress which kindled a like earnestness in his pupils. His mind, early trained in anatomical and physiological research, and at a later period devoted to the cultivation of pathological science, was well suited to undertake the duties of bed-side teaching; indeed, we do not think that as a clinical teacher Dublin has met with so great a loss since the death of Graves.

No man envied Dr. Robert Mayne's success; his brethren looked with pride on a man who had reached the highest walks of his Profession without ever quitting the path of the strictest honour. The natural amiability of his character gave him the power of attaching to himself in close affection those who came in contact with him. Perhaps, however, his unaffected simplicity formed the most striking feature of his character. Where will he be most missed?—in the social circle, where his cheerful laugh was ever foremost to greet the sallies of humour, while his presence forbade a word that was unkind, and repressed the first approach towards a jest that was coarse? or at the bedside of sorrow and sickness, where his energy, his vigour, his power of inspiring confidence were only equalled by the kindness of his nature, his gentleness, his almost womanly tenderness?

At the early age of 53 years, having done more than attained success, having deserved it, he was followed to the tomb by a large concourse of persons who had admired his simple, honest ways, and who cordially lamented his untimely death. His remains were borne to their last resting-place by his pupils—a touching tribute to the memory of their honoured master which caused a tear to start into many an eye that witnessed it.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 12th inst., and when eligible will be admitted to the Pass Examination:—

Algernon Ewen, Henry Weekes, John Gill, Jabez Thomas, Robert Stuart, W. H. Butler, J. H. Walters, B. C. Gowing, R. B. Nowell, and S. W. Bushel, Students of Guy's Hospital; O. W. Berry, A. R. Verity, A. Fennings, T. S. Dowse, and H. J. Foulds, of Charing-cross Hospital; R. P. Simpson, H. A. Husband, and Edward Bryan, of St. Bartholomew's Hospital; G. A. Brown, J. Oakley, and R. M. Hickman, of King's College; C. J. Harris, C. W. Huet, and J. C. Worthington, of the Middlesex Hospital; E. C. Shopfree, William Hoffmeister, and W. C. Cass, of University College; J. F. Sargent and W. J. Land, of St. Mary's Hospital; Richard Ley, London Hospital; W. B. Coghlan, St. Thomas's Hospital; W. A. Parsons, Birmingham; and W. E. Richardson, Leeds.

On the 13th inst.:—

J. T. Langley, William Iliffe, G. F. Webb, T. L. Place, A. C. Farrington, H. C. Rogers, Theodore Fennell, H. R. G. Rust, and Edwin Renshaw Students of St. Bartholomew's Hospital; Henry Denne, Henry Morris, H. S. Taylor, G. R. Raine, and Joseph Batteson, of Guy's Hospital; E. M. Spooner, E. S. Wright, Dimey Sharp, and Alfred Walker, of the London Hospital; R. S. P. Griffiths, N. B. Major, and F. G. Atkins, of St. Mary's Hospital; Howard Barrett, G. C. Searle, and F. W. Underhill, of St. George's Hospital; J. B. Kerswill and W. J. Todd, of King's College; Alfred Jones and John Swindale, of the Middlesex Hospital; T. H. Tidswell, of the Charing-cross Hospital; F. B. Nunnely, of University College; C. G. M. Lewis, of Birmingham; J. H. Hughes, of Dublin; T. R. King, of Edinburgh; and George Bambridge, of Leeds.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, April 7, 1864:—

William George Beardsall, Worksop, Notts; Arthur Roberts Firth, Richmond, Surrey; Henry Rayner, St. Thomas's Hospital; Joseph Bower Siddall, St. Thomas's Hospital.

As an Assistant:—

James Williams, Wokingham.

The following gentlemen, also on the same day, passed their First Examination:—

Franklin Gould, King's College; William Iliffe, St. Bartholomew's Hospital; George Warcup Malim, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Anstie, Francis Edmund, M.D., M.R.C.P., Assistant-Physician to the Westminster Hospital, to the Chair of Materia Medica and Therapeutics in Westminster Hospital School.

Baker, Slade J., M.R.C.S. Eng., has been pointed Surgeon to the Berks County Hospital at Abingdon.

Barker, Edward, M.D., F.R.C.S. Eng., h been appointed Lecturer on Surgery at the University of Melbourne.

Clements, G., Mr., has been appointed Resident Clinical Assistant at the Middlesex Hospital.

Eades, Richard, M.A., M.B., has been appointed Lecturer on Materia Medica, Therapeutics, and Medical Botany at the University of Melbourne.

Grimshaw, Thomas W., M.B., T.C.D., has been appointed Junior Physician to the Cork-street Fever Hospital, Dublin.

Harris, William, M.D., has been elected House-Surgeon to the Bristol General Hospital.

Harrison, George W., M.R.C.S. Eng., has been appointed Assistant House-Surgeon to the Birkenhead Borough Hospital.

Holyoake, Thomas, M.R.C.S. Eng., has been appointed Junior House-Surgeon to the Royal Infirmary, Liverpool.

Kennedy, Henry, M.B., T.C. Dub., has been appointed Physician to the Cork-street Hospital, Dublin.

Leach, J. C., Mr., has been elected Assistant House-Surgeon to the Bristol General Hospital.

Lowe, Edgar, M.R.C.S. Eng., has been appointed Medical Officer to the County Gaol, Worcester.

Macadam, John, M.D., has been appointed Lecturer on Chemistry and Practical Chemistry at the University of Melbourne.

Nash, George, B.V., M.R.C.S. Eng. has been appointed House-Surgeon to the Liverpool Royal Infirmary.

Philipps, A., M.R.C.S. Eng., has been appointed Resident Surgeon to the Manchester Workhouse.

Philipson, George H., M.B. Cantab., has been elected Physician to the Royal Victoria Hospital for the Blind, Newcastle-upon-Tyne.

Shortt, John, L.R.C.S.I., has been elected one of the Medical Officers of the South Dublin Union.

Soper, Robert W., M.R.C.S. Eng., has been appointed House-Surgeon to the Loughborough Dispensary.

Travers, Robert, M.B., T.C. Dub., has been elected Professor of Medical Jurisprudence in the University of Dublin.

Wharton, James, L.K.Q.C.P.I., has been elected Surgeon to the Fever Hospital, Cork-street, Dublin.

DEATHS.

Beaumont, James, Surgeon, at Wetherby, Yorkshire, on March 31, aged 75.

Colby, T. Y., Surgeon, at Bayswater, on March 22.

Colligan, William W., L.R.C.S. Edin., at Johnstone, Paisley, N.B., on April 2, aged 31.

Collyns, Charles Palk, M.R.C.S. Eng., at Dulverton, Somerset, on April 7, aged 70.

Headley, W. C., Surgeon, at the Lunatic Hospital, Lincoln, on March 15, aged 82.

Hildyard, Isle G., M.R.C.S. Eng., at Louth, Lincolnshire, on March 30.

Dr. Livingstone.—Her Majesty's steamer *Rapid* has arrived at Table Bay from the eastern coast of Africa. She brought the welcome intelligence that Dr. Livingstone was alive and well. On January 5 the *Rapid* arrived at the Louba mouth of the Zambesi, expecting to find Livingstone and his party, to take them on to the Cape. On communicating with

the Portuguese station-house there, they found there was a letter addressed to the senior naval officer from Bishop Tozer. It was dated "Murchison Falls, December 21," and stated that Dr. Livingstone had come back from his expedition up country, and arrived at the foot of the Murchison Falls in November, and they intended to come down the river as soon as the water rose sufficiently to get the *Pioneer* down. Dr. Livingstone, the Bishop, and party were well in health. The mission party also intended to leave the country, as it appeared an unsuitable field, and would return to England by the Cape; the Bishop and one of his clergymen, however, were to go and visit the Governor of Mozambique. There were no letters for the Cape. The *Rapid* brought down 187 prize negroes taken from a slaver.—*Graham's Town Journal.*

THE LATE EXAMINATION FOR THE ARMY MEDICAL DEPARTMENT.—As might have been expected, the late desperate attempt to obtain candidates for the vacant Assistant-Surgeoncies in the army has proved an utter failure. Although the bait was thrown far and wide, and any unsettled, unemployed man, possessing the necessary qualification, and being under 30 years of age, was solicited to make application, only fourteen candidates were obtained. Of these three were physically disabled, four were rejected as Professionally incompetent, and the remaining seven were accepted. In the Indian and British armies together there are now nearly two hundred vacancies. When it is too late the authorities will perhaps become alive to the folly of the course they are pursuing. We can assure them that they will never make the service a popular one, and never obtain an influx of highly-educated Professional gentlemen as candidates, until they grant those reforms in the matters of pay, retirement, position, and duties, which have been so frequently insisted on in this Journal.

SANITARY REFORM IN INDIA.—Letters received by the last Calcutta mail state that the Bengal Government is taking active measures to abolish the native custom of throwing the bodies of the dead into the River Ganges, and of burning dead bodies at the Mintollah burning ghât, whence the sickening fumes are wafted over the city of Calcutta. These reforms have raised a storm of opposition amongst the Hindoos. The correspondent of the *Times* writes:—"In other respects judicious endeavours are being made to purify the capital. The health officer has been making a 'hygienic survey' of the town—a thing hitherto unheard of. The filthiness of this place, the loathsome stench that fills nearly every street, the utter neglect of cleanliness and decency among the native population surpass belief. The only mystery is that Europeans are able to live here at all. The city is ten times as dirty as the bazaars at Cairo, and smells fifty times nastier than Cologne. There is likely at last to be an improvement in it; but the co-operation of the natives ought to have been secured in the first instance, instead of their opposition being aroused."

KEW GARDENS.—Many improvements in the gardens are in progress or contemplated. The duties of the Department of the Herbarium are rapidly increasing, owing to the demands made upon it by various departments of the Government, the receipt of large collections from important Government expeditions, the applications for advice from persons proceeding to take charge of plantations of tea, cinchona, cotton, coffee, etc., and the redoubled activity of the colonies in the publication of their *Floras*, which, though paid for by the Colonial Government, can only be prepared at Kew, or by persons in direct and constant correspondence with its Herbaria and Museums. The *Flora* of the British possessions in India is to be proceeded with upon the same plan as the colonial *Floras*, and has been commenced in the Herbarium by Dr. Thomson. Very satisfactory reports are received of the success of the introduction of cinchona plantations in India, in the establishment of which Kew has had so large a share. In the nurseries on the Neilgherrie hills there were, in December last, nearly 260,000 plants, of which more than 66,000 were planted out; one was nearly ten feet high. The bark has been analysed, and the result is entirely satisfactory. There are 8000 plants in the Darjeeling plantations, Himalaya, and 22,000 in Ceylon. Steps have been taken at the request of the Government of South Australia to introduce the cork tree into that colony; a large quantity of young plants have been raised in the pleasure-ground nursery for transport, to be sent out this spring in a growing condition in glazed cases. Large collections of semi-tropical trees and shrubs have been sent, at the request of the Admiralty, to the once desert island of Ascension, the upper parts of which are now clothed with trees and shrubs, chiefly derived from Kew. The most satisfactory accounts are received of the thriving condition of these plants, and the consequent rapid increase of the fertility, water supply, pasture land, and vegetable produce of the island. The Bermuda grass especially, which was sent from Kew several years ago, has now become the staple fodder of the place.

THE DISPUTE BETWEEN DR. BULLEN AND SIR ROBERT KANE.—The grave charges made by Dr. Bullen, Professor of Surgery at Queen's College, Cork, against Sir Robert Kane, the President of the College, were investigated by order of the Government, at the usual triennial visitation of the College, which took place on April 12. The visitors were the Lord Chancellor, the Bishop of Killaloe; Dr. Corrigan, President of the College of Physicians, and Dr. Colles, President of the College of Surgeons. One of the charges brought by Dr. Bullen against the President was, that he urged Dr. Bullen to join him in making a report which would ascribe the burning of the building to the ultramontane party in Cork. Dr. Bullen appeared by his counsel—Mr. Barry, Q.C. Sir Robert Kane declared that the charges made against him were false and unfounded, and that he desired the fullest investigation. Mr. Barry then read the following letter from Dr. Bullen, dated April 12, and addressed to Sir R. Kane, President:—"Sir,—In a communication which I addressed to his Excellency the Lord-Lieutenant on the 29th of July, 1863, I enclosed to him memoranda, purporting to represent conversations held between you and me relative to the burning of the Queen's College, Cork. These memoranda were not committed to writing for a considerable interval after the conversations referred to, nor until, as I am now convinced, a lapse of time and intervening events had effaced from my mind an accurate recollection, and substituted erroneous impressions of what had passed between us. At the time I made the statements to his Excellency I believed in their accuracy, but am now satisfied that I was entirely mistaken, and that you are perfectly justified in your denial of the statements, which I now entirely withdraw. The excitement produced by the public discussion of these matters has since led me to prefer charges against you which are altogether unfounded, and which I beg also to retract in the most unqualified manner. I deeply regret what has occurred, and beg to offer you the most ample apology for any annoyance which these transactions may have occasioned you.—Denis B. Bullen, M.D., Professor." The *Times'* Correspondent adds:—"The reading of this letter called forth enthusiastic cheers from the students and the citizens present. The Lord Chancellor stated that, having received that full, explicit, and unqualified assurance of the incorrectness of his statements from Dr. Bullen, their function was at an end. It was for the Government, not for them, to take action upon the letter, which he would lay before the Lord-Lieutenant. He expressed his gratification with the satisfactory result at which they had arrived, and hoped that the future progress of the institution would be equal to that which it had hitherto maintained, gratifying to all connected with it, and reflecting credit on the country at large."

BETHLEHEM HOSPITAL.—On Saturday, April 9, an adjourned special meeting of the Governors of Bethlehem Hospital was held at Bridewell Hospital, Bridge-street, Blackfriars, under the direction of Mr. F. O. Martin, Inspector of Charities, respecting the site of the Hospital; Mr. Alderman Copeland, M.P., in the chair. The chairman said the Commissioners in Lunacy having recommended to Sir G. Grey that the Hospital should be removed from its present site to the country, to make room for St. Thomas's Hospital, the Governors were prepared with a great deal of evidence which they should offer to Mr. Martin in favour of the present site. Mr. A. M. Jeaffreson (the secretary) read a communication from Mr. Lawrence, Surgeon to the Hospital, and senior Surgeon to St. Bartholomew's Hospital, which stated that the Commissioners in Lunacy sought to obtain the assistance of Sir George Grey in order to enforce an arrangement which was most repugnant to the Governors, forgetting that their power, as far as Bethlehem was concerned, was simply confined to that of visiting. Without any examination on his part, the Home Secretary endorsed the strange proposal for taking down one of the handsomest and best constructed Hospitals in London. The present site of Bethlehem was perfectly suited in healthiness either for lunatics or as a general Hospital. Instead of being confined, the site of the Hospital was remarkably open. He disapproved entirely the recommendations of the Commissioners in Lunacy. The opinion of Dr. Goode was read. He was in favour of the present site

from his personal experience of ten years. At present it enjoyed many advantages, and the Hospital, instead of being hemmed in by buildings, was peculiarly free and open. If the Hospital was removed ten or twenty miles into the country, how were the patients to be removed to the Hospital? The sanitary condition of the neighbourhood was good. The site was healthy, and the position good, and he hoped that the Hospital would be maintained in its present condition. Dr. Wood, one of the Medical officers of St. Luke's Hospital, and formerly of Bethlehem Hospital, said no good reason had been advanced why the Hospital should be removed. Bethlehem was one of the finest buildings in London, and taking the grounds of Bethlehem, with its eleven acres and 200 patients, and Hanwell, with twenty-eight acres, farm of seventy-seven acres, and 1600 patients, there was considerably more space at Bethlehem per head than at Hanwell. The Hospital was singularly and exceptionally healthy. When cholera was raging in London, and people were dying literally at the very doors of the Hospital, not a single case happened among the inmates. Mr. Martin, the inspector, asked whether it was possible to have an institution in the country in connexion with the Hospital. Mr. Johnson, the treasurer, said to a small extent they had already sent patients to the seaside. After some further evidence had been taken, a vote of thanks was passed to the chairman, and the meeting was adjourned.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A Foreign Verdict on a Question of Professional Honour.—*L'Union Médical*, of April 7, after speaking of the alleged refusal of the civil Medical Practitioners of Foggia to render aid to their military brethren in an epidemic of typhus, and of the condemnation of their conduct by the whole Medical press, and of the unanimous generous spirit with which the whole of *l'Italie Médicale* protested against it, and came forward to fill the gap, thus delivers its verdict upon the Birkenhead case:—

"Quel contraste avec nos confrères d'outre-Manche, dont le flegme à l'annonce d'un fait analogue, et plus répréhensible peut-être, ne s'est pas troublé le moins du monde; le *Medical Times* seul en a pris souci, et encore est-ce pour faire pièce au petite *British*, qu'il prend directement à partie pour lui reprocher à ce sujet ses tendances mercantiles. Voici le fait: Une femme de Birkenhead est prise des douleurs de l'enfantement avant terme, le 8 mars, à neuf heures du soir, sans avoir retenu personne pour l'assister. On patiente jusqu' à minuit et demi, mais, à ce moment, il n'est plus possible d'attendre, et le mari court chercher un médecin. Il frappe à la porte d'un, de deux, de trois, et successivement jusqu'à six, mais en vain; l'un est indisposé, l'autre est vieux, celui-là est occupé ailleurs, un quatrième ne répond pas, et celui-ci—je ne le nommeral pas—va jusqu'à dire, oh, *shame! shame!* qu'il ne se dérangera que si on lui apporte une guinée pour le payer d'avance. A bout d'adresses, le pauvre homme revient au premier médecin, espérant, comme il est quatre heures du matin, que son indisposition sera dissipée. Il l'adjure, au nom du ciel et de l'humanité, de venir sauver la vie de sa femme. Celui-ci se rend, en effet, aussitôt près d'elle, qu'il trouve sans pouls par suite d'une hémorrhagie abondante et qui expire instantanément. Et voilà comment le *coroner*, appelé à constater ce fait révoltant, l'a rendu public dans le *Liverpool Mercury*, et mis ainsi les médecins de Birkenhead à l'index.

"Leur conduite est évidemment injustifiable. Le médecin doit d'abord secourir en pareil cas, sauf à demander, à exiger même ses honoraires ensuite. C'est le meilleur moyen de montrer que nos services ne sont pas légalement dus, comme on est trop disposé à le croire partout. Des membres du jury dans l'examen de cette triste affaire, ont ainsi demandé que des mesures coercitives puissent être dirigées contre les médecins récalcitrants. Exiger rigoureusement la rémunération de nos services est la meilleure manière de répondre à de telles prétentions, mais il n'est ni juste ni digne d'agir autrement."

THE SCOTTISH REGISTRATION ACT.

The Medical students of Glasgow have addressed the following memorial to Lord Palmerston, the Lord Rector of that University. Its object will meet with the sympathy of the whole Profession in all parts of the United Kingdom. The Scottish Registration Act was an insult to the Medical Practitioners of Scotland, which could never have been perpetrated had the Profession been properly represented in Parliament:—

"The Right Hon. Viscount Lord Palmerston, K.G., M.P., etc., etc., First Lord of Her Majesty's Treasury, and Lord Rector of Glasgow College.

"The memorial of the undersigned students attending the Medical classes in the College of Glasgow,

"Most respectfully sheweth,

"That memorialists desire to draw your lordship's attention to an unseemly anomaly in the law affecting the registration of deaths in the United Kingdom.

"That an Act for Regulating the Registration of Deaths has been in operation in England for 30 years. That the professors in the colleges and universities of England, and the members of the Medical Profession generally, are expected to render their professional services for the public interest, by granting certificates of the cause of death, without fee or reward. That it has never been thought expedient to employ coercion by legal statute to compel the Practitioners of England to give their professional assistance gratuitously in this matter—such a course being wholly opposed to the geinus of the British Constitution, and irreconcilable with English ideas of justice and the rights of property or of professional labour.

"That in 1854 an Act for the Regulation of the Registration of Deaths in Scotland was carried through Parliament. That in dealing with the Medical Profession in the Scotch colleges, and the Profession generally of Scotland, a widely different course was pursued to that which had been followed with the English. The occupants of the Medical chairs and the members of the Profession were not estimated as being entitled to be classed with, or put on a footing of equality with their English brethren. It was deemed necessary to institute a system of penal terror—fine or imprisonment, inflicted at the instance of the criminal officers of the Crown, under which the professional labours of the Medical men of Scotland could be exacted for the public interest.

"That during last session of Parliament Sir Robert Peel, her Majesty's Principal Secretary for Ireland, carried an Act to Regulate the Registration of Deaths in that country. That on introducing his measure the Secretary for Ireland stated in the House of Commons that he had consulted the President of the Royal College of Surgeons of Ireland, and other competent authorities, whether the 'Scotch compulsory system' would be suited to and borne by their countrymen, members of the Medical Profession; but he had been given to understand that it would be vain and futile to attempt to force so obnoxious a system on the Irish—that any such overture would be met with scorn and contempt—that nothing but full equality with the English, and that in every particular, would be submitted to. Government acted on this advice, and the Irish Registration Act is free from the unjust, invidious, and humbling enactment existing in the Scotch.

"That memorialists are confident your lordship is not aware that so invidious and uncalled-for a distinction injuriously affecting the status of the Medical Professors and Practitioners of Scotland exists, therefore they think it necessary to draw your lordship's attention to it, and to state that, if this unseemly condition of matters be permitted to continue, the prospects of the young men educated in the Universities here will be materially injured. The inference to be drawn from the above-recited Acts of Parliament unanswerably is, that the teachers under whom the youth of Scotland are trained are morally and otherwise inferior to their class in England and Ireland, incapable by example or precept to bring up their students otherwise than in such a manner that, when they enter the Profession of their adoption, they will be found not entitled in the eyes of the law to be placed on a footing of equality with their co-practitioners of England and Ireland.

"May it therefore please your lordship to introduce into Parliament such a measure as will repeal the compulsory section of the Scotch Registration Act, and thus place the Medical Professors on equal footing throughout the United Kingdom,

"And your lordship's memorialists, as in duty bound, will ever pray."

COMMUNICATIONS have been received from—

Dr. GRAILY HEWITT; MEDICAL SOCIETY OF LONDON; ANTHROPOLOGICAL SOCIETY; Mr. JOHN ROBERTON; HARVEIAN SOCIETY OF LONDON; ROYAL INSTITUTION; Dr. JAMES C. L. CARSON; IN DUBITE EST; Dr. J. FERRIER CLARKE; Dr. R. DUNDAS THOMSON; Dr. MOORE; Professor WHARTON JONES; Mr. BARTH; APOTHECARIES' HALL; C. K.; Mr. THOMAS B. BOTT; Mr. W. A. HARRISON; PHARMACEUTICAL SOCIETY; Mr. W. PROWSE; NEMO SIBI VIVAT.

BOOKS RECEIVED.

Laryngoscopical Medication, or the Local Treatment of the Throat, Larynx, and Neighbouring Organs. By Louis Elsberg, A.M., M.D. New York: W. Wood and Co. 1864.

*** On the whole, a useful and readable digest of the subject. The following list of topical remedies is the author's contribution to American go-ahead-ism:—Acids, acetic, pyroligneous (either alone or with creosote water), tannic (especially with belladonna), chromic, nitric, and other mineral acids; aconite tincture with glycerine; atropine solution, and belladonna tincture; alum, bromide, and chloride of ammonium; benzine; borax; iodide and chloride of bromine; sulphate of cadmium; catechu tinct.; capsicum tincture; chlorine; ozonised chlorine; cannabis indica tincture; chloroform; codeine tincture; conïin solution in sweet almond oil; aluminated sulphate of copper, nitrate of copper; creosote; digitalis tincture; ergotine solution; erygeron oil; eupatorium; gelsemin tincture; geranin tincture; glycerine; hyoscyamus tincture; iodine in various combinations; iodoform solution in oil; sesquichloride of iron tincture, perchloride solution, persulphate sol.; chloride of lime solution; iodide of lead, also tannate and sulphate; myrrh tincture; acid nitrate, argento nitrate of mercury, iodide, mild and corrosive chloride; iodochloride of mercury; morphine solution and opium tincture; cod-liver and olive oil; bromide, cyanide, iodide, and hydrargyri iodide of potassium; bichromate, chlorate, iodate, nitrate, and permanganate of potash; Filho's caustic, and Vienna paste in stick; rosin; common salt; sanguinaria; senega; iodide of silver and potassium; stramonium; strychnine; sugar; tar; turpentine; veratrum tincture; acetate, chloride, iodide of zinc, sulphate of zinc and alum, sulphate of zinc and morphia, etc." Surely any prospective laryngoscopist must be satisfied with an armamentarium such as this! What the author has *not* told us is how and when to use them, and which are altogether useless.

The Glasgow Medical Journal. April, 1864. Glasgow: W. Mackenzie.

*** A writer in this Journal subjects Dr. Forbes Winslow's evidence in the Townley case to a more severe criticism than we have ventured upon. He says "the conclusions of Dr. Forbes Winslow, when compared with the observations on which he bases them, have not unjustly given rise to the most unmingled astonishment. If this man Townley was mad in the sense that he was not responsible for his act, what crime of the kind will in future be incapable of defence?" He adds:—"It is scarcely our business to speculate as to the origin of these comprehensive theories in the mind of the distinguished Physician in question, but it may not be irrelevant to go so far as to assume that when a man is constantly examining cases of real or supposed insanity, a period arrives when his own judgment is in a certain degree affected by the continual practice which he has to undergo." This is about the mildest of the insinuations of the writer of the article.

Annals of Military and Naval Surgery and Tropical Medicine and Hygiene. Vol. I., 1863. London: John Churchill and Sons. 1864.

*** A condensation of Medical Blue-books, etc., likely to be in demand among officers of both services.

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Edinburgh Medical Journal. April, 1864. Edinburgh: Oliver and Boyd.

*** Dr. Andrew Wood furnishes us, in this number, with a mild protest against Mr. Syme's extravagances in relation to the reform of Medical education. That students are wearied, annoyed, and disgusted by much in the present system there is no question, and Dr. A. Wood's suggestions for their relief are many of them of real value, inasmuch as he maintains the importance of a complete curriculum, while divesting it of much of its tedium.

Edinburgh Veterinary Review. April, 1864. Edinburgh: Maclachlan and Stewart.

*** Officers of health and Veterinarians are not the only people concerned in the prevention of the spread of disease among live stock, and consequently in the attempted legislation upon the subject. The "Cattle Diseases Prevention Bill," introduced into the Commons by Mr. Bruce, has been referred to a select committee—the best thing that could be done with it in the present state of public opinion. Those who may wish to hear the views held by its advocates and opponents will find in this number of the *Veterinary Review* several discussions and papers respecting it.

Bulletin de l'Académie Royale de Medecine de Belgique. Second Series. No. 9. Bruxelles. 1863.

*** We can commend to such of our readers as are not yet familiar with the operations of the Calabar bean an excellent paper on the subject by M. Warlomont, which is the principal article of interest in this number.

Quarterly Journal of Microscopical Science. April, 1864. London: John Churchill and Sons.

*** This number contains a paper "On the Germinal Matter of the Blood, with Remarks upon the Formation of Fibrin," by Dr. Beale, which demands a more extended notice.

Annual Report of the Bourton-on-the-Water and Cotswold Village Hospital. January, 1864.

*** The rules, subscribers, and third annual report of a useful institution, where patients pay for their support, and the Union Medical officer is not defrauded. An enclosed sheet gives brief details of thirty-eight cases brought to a conclusion, and two still in the Hospital. 261 out-patients are also tabulated. There appear to have been no deaths during the year.

A Guide to Geology. By John Phillips, M.A., etc. Fifth Edition. London: Longman and Co. Pp. 314.

*** The completeness of this small work is marvellous. It lays before the student, in few and clear words, all the existing doctrines of modern geology, and the relations of geology proper to the kindred sciences of natural history, mineralogy, and chemistry.

Handbuch der Lehre von den Knochenbrüchen. Von Dr. E. Gurlt, Professor der Chirurgie au der Königlichen Universität zu Berlin. 2. Theil. 1. Lieferung.

*** This is a second part of the comprehensive and exhaustive treatise on Fractures by the learned Professor of Surgery in the Royal University of Berlin. The former part was reviewed in our columns in 1862, vol. i., p. 247. The present part contains 368 pages of text and 31 admirable woodcuts, illustrating fractures of the vertebræ, ribs, rib-cartilages, sternum, os hyoïdes, and laryngeal cartilages. It is a perfect museum of references to all recorded cases of rare fractures.

A Vindication of the Present State of Aural Surgery. By a Member of the New Sydenham Society. London: John Churchill and Sons. 1864.

*** A pamphlet which our readers, like ourselves, will probably have received individually. It reviews Kramer's Aural Surgery, recently translated by the New Sydenham Society, in a very unfavourable manner. Beyond this, it is rather difficult to see the object of an anonymous publication of the kind.

Sketch of the Early History of the Medical Profession in Edinburgh. By John Gairdner, M.D. Edinburgh: Oliver and Boyd. 1864.

*** This is an address delivered at a *conversazione* in the hall of the Royal College of Surgeons of Edinburgh in January last. It appears to follow up a similar communication made four years ago. It is as interesting as might be expected, but hardly admits of analysis, from its consisting mainly of extracts from records and historical minutiæ.

Montpellier Medical Journal Mensuel de Medecine. March, 1864.

*** Three original memoirs on malignant pustule, puerperal fever, and hemeralopia, as observed among the crew of the *Pallas*, a French frigate, when in the Pacific Ocean, sustain the credit of a periodical to which we are already indebted. A review of a work on the outbreak of yellow fever in France, at St. Nazaire, is followed by a particularly lively and amusing monthly chronicle.

Modern Leicester. Part 2. A Lecture delivered before the Leicester Literary and Philosophical Society. By John Barclay, M.D., F.R.C.P. Leicester: W. P. Cox.

*** This plain-spoken, admirable address is one example of the civilising effect of our Profession. It is fortunate for the Leicester people that they have so acute and eloquent a critic amongst them. We reserve for another occasion his remarks on the Leicester Infirmary.

Biographical Sketch of Sir Benjamin Brodie. By Henry W. Acland. London: Longman and Co. 1864. Pp. 30.

*** Reprinted, with a few alterations, from the obituary notices of the Royal Society. An elegantly written account of Sir Benjamin's life and character.

The Quarterly Journal of Science. No. 2. April, 1864. London: John Churchill and Sons.

*** This periodical is likely to take a high position among its congeners, judging from the two numbers which have appeared. We are glad to be able to say a good word in its favour. Among the papers which will interest our readers most is one on "the Fossil Skull Controversy," a continuation of Dr. Carpenter's contribution on "the Conservation of Force Applied to Physiology," and one by Dr. Voelcker on "Milk and Dairy Arrangements."

Archives of Medicine. No. 14. By Lionel S. Beale. London: John Churchill and Sons. 1864.

*** In addition to the other excellent papers, there will be found here the first of a series on "Recent Contributions to the Study of Continued Fever," apparently intended as an antidote to the objectionable parts of Dr. Christison's address at the Edinburgh meeting of the Social Science Association.

Rapport sur l'Assainissement des Fabriques ou des Procédés d'Industries Insalubres en Angleterre. Par M. Charles de Freycinet.

*** We desire to direct the attention of Medical Officers of Health and others interested in improving the health of workpeople and the neighbourhoods around manufactories to this volume. The author, we know, took great pains in investigating the subject when in England last year. The Report is published by the French Government, and although the matters discussed are regarded from a Continental point of view, the book is well worthy of perusal. We suppose it may be obtained through any of the foreign booksellers.

Evening Thoughts. By a Physician. Third Edition. London. J. Van Voorst. 1864.

*** A little book containing plenty of suggestions for the thoughtful.

The British and Foreign Medico-Chirurgical Review. April, 1864. London: John Churchill and Sons.

*** An excellent number of a periodical which never falls to mediocrity.

Statistical Tables of the Patients Treated in Guy's Hospital, 1863. By John C. Steele, M.D.

*** The continuance of these tables by Dr. Steele will, in time, furnish a valuable series for the Medical Statistician.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 9, 1864.

BIRTHS.

Births of Boys, 1018; Girls, 995; Total, 2013.
Average of 10 corresponding weeks, 1854-63, 1787·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	768	733	1501
Average of the ten years 1854-63	644·2	613·1	1257·3
Average corrected to increased population..	..	..	1383
Deaths of people above 90	..	1	1

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	1	1	8	1	13	12	..
North ..	618,210	5	11	8	3	15	11	6
Central ..	378,058	1	5	5	2	11	7	..
East ..	571,158	..	8	11	1	13	7	4
South ..	773,175	3	8	16	5	15	13	8
Total ..	2,803,989	10	33	48	12	67	50	18

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·023 in.
Mean temperature	44·5
Highest point of thermometer	61·4
Lowest point of thermometer	35·0
Mean dew-point temperature	38·8
General direction of wind	Variable.
Whole amount of rain in the week	0·63 in.

APPOINTMENTS FOR THE WEEK.

April 16. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

Royal Institution, 3 p.m. Prof. Frankland, "On the Metallic Elements."

18. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

Medical Society of London, 8½ p.m. Mr. Teevan, "On Some Injuries to the Skull."

19. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Anthropological Society of London, 8 p.m. Captain Burton, V.P.A.S.L., and C. Carter Blake, F.G.S., "On Skulls from Annaborn, in the West African Seas." John Thurnam, M.D., F.S.A., "On the Two Principal Forms of Ancient British Skulls."

Pathological Society, 8 p.m. Meeting.

Royal Institution, 3 p.m. Professor Helmholtz, "On Conservation of Energy."

20. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m., Middlesex, 1 p.m.; London, 2 p.m.

Hunterian Society, 8 p.m. Mr. C. Bader, "On the Case of Opacity of the Cornea by Gonorrhœal Inoculation."

21. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m., Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Harveian Society of London, 8 p.m. Dr. Cock, "On Laryngismus Stridulus."

Royal Institution, 3 p.m. Professor Helmholtz, "On Conservation of Energy."

22. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

Royal Institution, 8 p.m. Professor Blackie, "On Lycurgus."

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DINNEFORD AND CO., PHARMACEUTICAL CHEMISTS,

Beg respectfully to inform the Medical Profession that they are now Dispensing Physicians' Prescriptions with the

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TO STUDENTS, SURGEONS, DENTISTS, AND OTHERS.

The Best House for Second-hand Instruments.

Where there is the Largest Stock in London, is Mr. WILLIAM LAWLEY'S, 78, FARRINGDON-STREET, CITY.
Army and Navy Regulation Cases, Pocket Cases, from 14s. each; Dissecting Cases at 8s. 6d. and 10s. 6d. each.
Photographic Lenses, Opera Race Glasses, and Telescopes, by the best London Makers.
Catalogue of Cameras and Lenses, also of Pocket and Dissecting Cases, forwarded on receipt of Postage Stamps.

CHLORODYNE CHANCERY SUIT.

JANUARY 11th, 1864.

BROWNE AND DAVENPORT versus FREEMAN.

"It was fully proved and established in Court, before Vice-Chancellor Sir W. P. Wood, that Dr. John Collis Browne was the Discoverer of Chlorodyne.

"The Vice-Chancellor observed that Dr. J. Collis Browne's Chlorodyne was known before the Defendant 'Freeman' had ever thought of using the word; that the Defendant's conduct led to a very strong suspicion that there was a gradual course of proceeding on his part to mislead people into the belief that, when they bought his medicine, they were purchasing Dr. J. Collis Browne's Chlorodyne; and that, if the Plaintiffs could show that any one had actually been deceived, an Injunction would be granted."—*Times*, January 12.

Affidavits from eminent Physicians and Surgeons of the Metropolitan Hospitals proved, beyond doubt, that Dr. J. Collis Browne was the discoverer of Chlorodyne; that they prescribe it largely, and invariably mean the original Chlorodyne of Dr. J. Collis Browne.

An Affidavit by Mr. Warington, Chemical Operator to the Apothecaries' Company of London, also established the fact, that Dr. Browne was the inventor of Chlorodyne; that the Company receive large orders for the supply of Chlorodyne for the Public Service, Hospitals, Merchants, and the Profession; and that, when Chlorodyne is ordered, they invariably supply Dr. J. C. Browne's.

Affidavits from Messrs. John Bell, Pharmaceutical Chemists, 338, Oxford-street, and several leading Wholesale Druggists of London, to the same effect, and that, when Chlorodyne is ordered, they invariably supply Dr. J. Collis Browne's.

Sole Manufacturer—J. T. DAVENPORT, 33, Great Russell-street, Bloomsbury, London.

In Bottles, 1oz, 3s.; 2oz., 5s.; 4oz., 8s.; 10oz., 15s.

Neither Physician nor Surgeon in plaintiff's suit even mentioned Freeman's compound; so much for the *truth* of its being the *preferred* medicine, as stated by the defendant. It is equally untrue that the Vice-Chancellor intimated in the slightest degree that the defendant had the right to the sole use of the prefix Original, as quoted in his advertisement in the "Pharmaceutical Journal," March 1, 1864.

The observations of the Vice-Chancellor, as reported in the "Times," speak for themselves.

Each Affidavit from Physicians, Surgeons, and Chemists affirms that Dr. Browne's Chlorodyne was known to them in 1855; whereas the Defendant "Freeman's" Compound was not heard of until 1859, after the Original Chlorodyne had obtained world-wide fame.

THE ORIGINAL CHLORODYNE.

INVENTED AND MANUFACTURED, IN 1844, BY RICHARD FREEMAN.

By the decision of Vice-Chancellor Sir W. Page Wood, R. Freeman is entitled to the Sole *right to use the word Original as a prefix to the word Chlorodyne.*

The large and still-increasing demand which the Inventor has for this therapeutic is evidence of the high estimation in which its properties are held by the Profession generally; and on a recent occasion a number of eminent London Physicians and Surgeons of long standing in the Profession, and who hold public appointments, made affidavits to the fact that Freeman's Original Chlorodyne is a more certain and reliable, a more valuable and a preferable, preparation to that of any other maker's. It is offered to the Profession as the best preparation of the kind, and at a price which allows the poorest sufferer to enjoy its extraordinary beneficial effects.

MANUFACTURED BY THE INVENTOR,

RICHARD FREEMAN, PHARMACEUTIST, KENNINGTON-ROAD, LONDON, S.;

And Sold by all Wholesale Druggists, in Actinic Glass Bottles, 1 oz., 1s. 6d.; 4 oz., 5s.; and 8 oz., 8s. 6d. each.

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ORIGINAL LECTURES.

LECTURES
ON THE CONSERVATION OF ENERGY.

By Professor HELMHOLTZ.

DELIVERED AT
The Royal Institution
ON APRIL 12, 1864.

Lecture III.

Ladies and Gentlemen,—In my last lecture I explained the arguments which are derived from modern observations on the nature of the sun, from which we are to conclude that the sun is an intensely heated body. I also endeavoured to prove that this idea is not at all in disaccord with the observations relating to the form of solar spots. We saw, likewise, that the small degree of density of the sun can be explained only by the very high temperature of that body; and that the light coming from the body of the sun is far more intense than any light we can obtain by terrestrial means—that it is 150 times more intense than the light of lime made to glow by a jet of oxygen and hydrogen, the so-called Drummond's light. The most intense we can produce by terrestrial means is that of an electric arc between two charcoal-points; but the intensity of the sun-light is three or four times greater. As to the intensity of the light, we can only give estimates, not accurate measurements; but the quantity of heat which is given out by the sun can be measured exactly. Such measurements have been made by the French physicist, M. Pouillet. He collected carefully the rays of the sun which are received by a surface of metal of definite size, and the heat produced by the rays was conducted to water, which was thus warmed. In this way he was able to measure how much the temperature of the water was raised by a given quantity of solar heat; and this was the result:—Supposing every square foot of terrestrial surface to be covered with one pound of water, the solar rays falling upon that surface being converted into heat, and this heat used to raise the temperature of the water, the temperature would be raised during one second of time by 0·06° Centigrade. This supposes that the surface is exposed perpendicularly to the solar rays. Now let us imagine a sphere [illustration], the centre of which is the sun, and the radius of which is the distance from the earth to the sun: the sun radiates its heat in all directions, and every square foot of this sphere receives the same amount of heat as every square foot of terrestrial surface which is exposed perpendicularly to the sun's rays; so that we can calculate the whole amount of heat which is given out from the sun, by multiplying the total number of square feet by the quantity of heat given out to one square foot. Such calculations have been made by M. Pouillet, and they have given this result. The quantity of heat emitted by one square foot of solar surface during one hour is equal to the heat which can be produced by burning 1500 lbs. of coal. You see that is a very great amount of heat. It would be impossible to burn such a quantity of coal on one square foot of terrestrial surface during one hour: the temperature of burning coal would not be sufficient to give so great an amount of combustion.

Now, I showed in my last lecture that heat can be converted into mechanical power; therefore, as we see that the surface of the sun gives out a most astonishing and enormous amount of heat, we must infer from this fact that an enormous amount of mechanical power goes out from the surface of the sun. We shall see that even the small portion of heat which is given to our earth is sufficient to produce all those great alterations, meteorological changes, the circulation of water, and so on. From the results of Mr. Joule's experiments, I have calculated the mechanical equivalent of this quantity of heat, and I find that it is 7000 horse-power for every square foot of solar surface. In this case we need not take notice of the time, because horse-power is a certain quantity of work done during a certain period of time. You see, then, that every square foot of the surface of the sun produces an enormous quantity of work, or the equivalent of an enormous quantity of work. It is not possible that such an amount of work can be produced without equivalent loss of other natural forces, because we have seen that power and energy cannot be produced from nothing; that they can only be obtained by changing the energy of other natural forces into the particular forms which we wish to produce. We must ask, then, what may be the sources of this enormous amount of solar heat? First, it might be supposed that there is a combustion going on over the surface of the sun. We know that by chemical processes a great amount of heat can be produced, and we may therefore ask if the sun is not fire, and if such an amount of heat cannot be produced by chemical means? Now, if we were to produce heat by the combustion of the elements of which our earth is composed, and we wished to produce the greatest amount of heat possible from the smallest mass, the most advantageous way would be to take hydrogen and oxygen, the two gases which are the component parts of water, and to burn them. They give a flame of a very high temperature, and they give the greatest amount of heat that can be obtained by a definite quantity of matter. If, then, they were mixed in that proportion which would give the greatest amount of heat that can be produced by chemical combination—if we supposed the whole body of the sun to be composed of oxygen and hydrogen, so combined as to form water, then the whole mass of this water would be heated to 3777° Centigrade. We have seen that the loss of heat is very great. Suppose the whole body of the sun to consist of water, the loss of heat going on during one year at the surface of the sun would cool this quantity of water by 1¼° C. Now, if we had such a mass of water produced by the combustion of oxygen and hydrogen, and heated to the temperature I have mentioned, this heat would be sufficient to supply the amount given out by the sun for 3021 years. Supposing, then, hypothetically a combustion going on such as would be most fitted to produce a great amount of heat, and to give out the heat which the sun loses every year, this would not make up for the loss of the sun's heat for more than 3000 years. Now we know thoroughly from human history that the sun has given out the same amount of heat (perhaps more in former times) for nearly 6000 years, and we may be sure that the time is far greater. We must conclude, then, from these results that chemical combinations are not at all adapted to produce such an amount of heat as the sun gives out every year. In order to derive the whole heat of the sun from chemical combinations, we ought to suppose that in the sun exist chemical elements of quite another nature than those of our earth—elements which have a power of affinity superior to the affinities of our terrestrial elements. But we know by the researches of Kirchhoff and Bunsen that a great number of the elements of our earth exist in the sun; therefore it is very probable that the composition of the body of the sun is not so very different from the composition of the mass of the earth. We cannot, then, suppose that the heat of the sun is produced by a chemical process, and that the sun is of the nature of fire. One might presume that the sun contains already a very great amount of heat; that it gives it out and is cooled by degrees. But you will see the cooling per year would be 1¼° C., and even this under the most favourable supposition—namely, that the whole mass of the sun was composed of water. Water, among all terrestrial bodies, has the greatest capacity for heat. All other terrestrial bodies would be cooled more than water by the same loss of heat; and we may be sure that if the sun gave out a store of heat already existing in its interior, the cooling would be greater than 1¼°. Now, the facts made known by human history prove that the temperature of the sun has not been sensibly diminished, and therefore that the cooling during historical times cannot be perceptible. We could perhaps suppose that the temperature of the sun is so great that even a loss of 3000° or 5000° is not perceptible; its temperature might be several millions of degrees; but this seems rather a bold and dangerous supposition. It is not very probable that the sun gives out only heat pre-existing in its interior. It is more probable that there are means to produce new heat. If the sun is losing heat, and becomes cooler, then it must contract, like all other heated bodies which contract if they are cooled. Now, the contraction of so great a mass would cause the outer layers of the sun to approach to the centre; they would sink down under the influence of gravitation; the heavy bodies thus sinking must necessarily do work, and that work cannot be lost. In such a case the work could only be converted into heat; and we may inquire—how great would be the quantity of heat produced by the mechanical work resulting from the contraction of the sun by the force of gravitation? You know that a heavy body falling to the earth produces heat, and in the same way the outer layers of the sun, if they approach the centre, must produce heat. This heat is, indeed, very great. We can calculate the amount of it, because we know by the researches of Mr. Joule the equivalent of mechanical power expressed in heat. If the sun contracts

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only so much that its diameter is diminished by the 10,000th part of its length, we shall get an amount sufficient to compensate for the loss of heat for more than 2000 years. If we suppose that the body of the sun contains the same substances as the body of the earth, then we must conclude that if the sun is cooled down to the same temperature as the earth, it will have at least the same density, or probably even a far greater density, because the gravity of the sun is far greater, and the attraction of this enormous mass to its outer surface is far greater than the attraction of the mass of the earth to its surface. But supposing that the sun could only contract to such an extent that its density would become equal to the density of the earth, then we should have heat produced by this contraction, and the amount would be nearly sufficient for the sun to give out heat and light of the same amount as at present for 17,000,000 years. So that you see, the force of gravitation operating on the surface of the sun, and the amount of this work converted into heat, would give a quantity far greater than can be produced by the strongest of our chemical affinities. This may appear an astonishing result, for the force of gravitation operating on the surface of our earth appears to be much less than the power of chemical combinations in producing heat or other kinds of mechanical energy. If we raise a weight to a very great height, even to the height of a thousand feet or more, and let it fall, it will only give so much heat as to raise its own temperature one or two degrees; and you know that the power of steam-engines, in which the energy is produced by the chemical combination of coal with oxygen, is far greater than the power of water-mills or the power of such weights as we are able to raise to a height by human force. Therefore, here on the surface of our earth chemical forces have a far greater amount of energy, and are capable of producing far greater effects, than mechanical means, than the force of gravitation as far as we can apply it. When one pound of carbon is burned, it produces so much heat that 8080 pounds of water can be warmed one degree Centigrade. One pound of carbon combines with $2\frac{2}{3}$ pounds of oxygen. Now, suppose that the heat produced in this way is used for lifting up the weight of carbonic acid produced by the combustion, that weight would be raised 580 English miles —the seventh part of the radius of the earth. You see that we are quite unable to raise any weight by mechanical power or by the power of the human body to such a height as it can be done by the energy developed by the combustion of carbon, by the combination of carbon with oxygen. Therefore, the energy developed by this combination, the energy which is used in our steam-engines, is far greater than the energy of similar masses when acting in a mechanical way.

Now suppose that carbon was burned on the surface of the sun, and we had to raise the weight of the carbonic acid from that surface: it would be raised by the energy produced by the combustion 20 miles only, because the force of gravity on the surface of the sun is so much greater than that on the surface of the earth. But when you compare this distance with the distances of the inter-planetary spaces, it is infinitely small; as it is when compared with the distance of the earth, or even with the diameter of the sun. You see, therefore, that the force of gravity, working through these enormous distances of the inter-planetary spaces, may be said to produce far greater amounts of energy and of heat than chemical combination, although for our terrestrial conditions chemical forces are far stronger and mightier than the force of gravity. The heat, then, given out by the sun may be produced by the contraction of the sun and by the force of gravity working during the contraction.

Several philosophers—first, Dr. Mayer, afterwards Mr. Waterston, and then Professor William Thomson—have upheld another theory, that the heat of the sun could be produced by a fall of meteors. You know that meteors and falling stars are bodies swarming through inter-planetary spaces, which sometimes come into our terrestrial atmosphere, are then heated, become glowing and luminous, and sometimes fall to the ground. They are chiefly composed of iron and several other minerals. It is not necessary that I should go into a further description of meteors, because soon after my own lectures Mr. A. Herschel will give you a special account of them. I can now only speak of those points which have reference to force. The velocity of these meteors is very great. Of course the calculations and measurements of their distance, height, and velocity are not very exact; but we have results approaching the truth. Their velocity is about the same as—sometimes greater than—the velocity of the earth in its way round the sun, which is 23 English miles per second. Now, this velocity is lost if the meteors fall to the earth—first, by friction, and afterwards by the impact on the ground: it cannot, however, be lost completely, but must be changed into another form of energy—it is changed into heat. This heat makes the body itself luminous and glowing; and when meteors have been found soon after their fall, they have been very hot, at least on their surface; they have also occasioned several fires; they have burned houses; and in the year 1618 the Palais de Justice, in Paris, was burned by a meteor. These cases seem not to be so rare as one would be inclined to suppose; Arago has given a list of them from some modern observations, and has found that, in the six years from 1840 to 1846, there were not less than five such cases in France alone. Now, we cannot doubt that the heat by which these meteors are heated is produced by friction, and by the compression of the atmosphere when they dip into it with such enormous velocity. We can produce the same result even with a less amount of velocity. I have here a piston adapted to the interior of a glass tube, and a little amadou fastened at the end of it. Now, when I compress very quickly, the atmospheric air contained in the interior, it becomes so heated that the amadou begins to burn. [Experiment.] You see, even with the small power of my arm, I can compress the air so much that it sets the amadou on fire; and, of course, the far greater velocity of meteors produces a far greater heat. The observers I have named were obliged to suppose that there are great swarms of meteors falling down on the surface of the sun, and producing solar heat. It was principally Professor William Thomson who discussed this hypothesis, and showed that it is not at all impossible to maintain such an idea. Indeed, the quantity of meteors falling into the sun must be very great—of course, far greater than the quantity falling on the surface of our earth; and the diameter of the sun would increase very sensibly during a long time: but the diameter is so great that it would require a much longer series of accurate observations than has yet been made, to perceive the increase. According to the calculations of Professor William Thomson, it would continue 4000 years before the diameter of the sun could be increased by one-tenth of a second of angle; and this could be recognised only by astronomical observations of the greatest degree of perfection. But there is another difficulty which was discussed by the same philosopher, relating to the attraction of the sun to the earth. If the mass of the sun increases, the attraction which drives the earth and all the other planets to the sun also increases; they would, therefore, be obliged to go more swiftly round the sun, and the length of the year would be lessened. This result would be avoided by supposing the whole amount of the meteors falling subsequently into the sun to be enclosed within the orbit of the earth. But lately M. Leverrier, in Paris, has made accurate observations and calculations about the motions of the planet Mercury, and he has found that they do not agree with the hypothesis that there is a perceptible mass of meteors in the interior of the orbit of this planet. Professor William Thomson has retracted his former conclusions, and no longer supposes that the whole amount of solar heat is produced by meteors; but it may be, nevertheless, that a sensible amount may be produced in that way. The period of time, then, through which the sun could give out the same amount of heat as at present will be lengthened a great deal if this supposition, that meteors are falling to the sun, is right. You see, therefore, that we already know processes by which the loss of heat which goes on along the surface of the sun can be made up through a period of time compared with which the length of human history is infinitely small, and that many generations of human beings must succeed each other before the diminution of the heat of the sun is perceptible.

In connection with these ideas respecting the nature of the sun, it is very interesting to remark that some recent astronomical observations have shown that there are dark fixed stars on the firmament. We cannot see them; we can perceive their existence only by several incidental observations. It is well known that on several occasions new stars have appeared on the firmament. In the "Cosmos" of Humboldt twenty-six such cases are given; the latest is one given by Mr. Hind in 1848. The most brilliant phenomena of this kind were the new stars observed by Tycho Brahe in 1572, which remained in the firmament two years; and the star of Kepler, observed in 1604, which remained till March, 1606. The star of Kepler was brighter than Sirius; it was one of the brightest stars in the firmament, but its light became by degrees feebler till it

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vanished completely. The position of these stars remained quite unchanged, so that they were evidently fixed stars. We see, then, that stars have existed which have glowed and given out light for some time, but at present are dark. I have already cited the instance of the dark companion of Sirius. The existence of such a star very near to Sirius, and nearly equal in its mass, was concluded from the motion of Sirius itself. Fixed stars which move through the cosmical spaces can only go on in a straight line if there is no other mass in their vicinity which attracts them; but if there is such another mass, they go on in a curved line, or they circulate round their common centre of gravity, and then they go in curved lines. Now, the motion of Sirius was in such a curved line, and, therefore, it was necessary to suppose that there was a dark mass in its neighbourhood. Indeed, this companion of Sirius has been found as a very feeble star,—not quite dark, but giving a very feeble light proportionately to its mass, which, as I have said, cannot be so very inferior to that of Sirius. It seems also that the intensity of the stars of the first magnitude has been altered even during the times of history. Ancient observers assert that Aldeboran was the greatest and brightest star in the firmament; at present, it is not so bright as Sirius, and it seems to have lost a part of its light.

We must ask now if a loss of the mechanical power of the solar system goes on at present, so that new quantities of heat can be developed. The theory that meteors falling into the sun keep up its heat supposes that mechanical power belonging to the motion of celestial bodies is lost. Mechanical power can be lost only by friction or by impact. Friction cannot be opposed to the motions of the celestial bodies if the interplanetary space is vacant. But it is very doubtful if it is vacant. There must at first be the mass of luminiferous ether; the mass cannot be zero; it cannot be vanishing, because the vibrations of the ether have a certain *vis viva*, a certain energy, and the energy of such a motion is always the product of the mass of the moved matter with the square of the velocity; therefore, if the mass of luminiferous ether were infinitely small, its motion could be no source of energy. In this way even a minimum can be calculated, and we may say that the mass of luminiferous ether, which is enclosed in a volume like that of our earth, cannot be less than 3000 lbs. of matter. This is the calculation made by Prof. W. Thomson. There is, then, a medium in the interplanetary space which has a very small density,—the space is not quite vacant. Now, if we consider the loss of motion in a space filled with a resisting medium, it is clear that the motions of the planets cannot go on to eternity; they must approach, by degrees, to the central body.

I showed you in my second lecture the motion of a small, heavy ball of iron round a large sphere. To-day I have a lighter ball, made of ivory, the motion of which is more impeded by the resistance of the air than was the ball of iron; and you will see if I put this ball into the same kind of motion round the sphere, it will soon approach it, coming nearer and nearer, and at last falling upon it. Now, we know that the motion of the planets has not diminished in a sensible degree within the time of human history. The length of our year, measured by days, is the same as it was in the time of ancient Greece, and at the time when the Chaldeans made their astronomical observations. There is, however, a small body belonging to our system—(the comet of Encke, the smallest of the bodies visible from the earth, and the motions of which we can calculate)—which goes round the sun in little more than three years; and it has been observed that it gradually approaches the sun, and that the time of its revolution becomes shorter and shorter,—not very much, indeed, for in 1786 the time was 1208 days, and at present it is 1204 days. This shows that the comet approaches the sun, and that at last it must fall into the sun. We may conclude from these observations that the density of the resisting medium is not great enough to alter in a sensible degree the motion of the larger planets which have a very heavy mass, but that it is quite sufficient to alter the motion of bodies of smaller masses in the same way as the motion of this little ball has been altered by the resistance of the air.

Then we have another sort of friction going on in the celestial bodies—that is, the motion of the tides. Our ocean is moved by the attraction of the moon and the sun. I need not describe the motion of the tides: you all know it, because you have all been on the sea-shore, and the motion of the tides is very great along the coast of England. The ocean rises and sinks twice every day, and the motion is produced by the attraction of the moon and the sun; it is resisted by friction in the breaking of the waves against the shore, and by the friction against the bottom of the ocean. We have here a motion that goes on, and the energy of which is perpetually diminished by friction. We must conclude that, by the friction of the tidal waves, heat is produced at the expense of gravitation which attracts the moon to the earth. It is true we have not yet been able to prove that the friction of the tides has any sensible influence upon the motion of the earth. But when we ask what will be the final result of this friction, we find that the length of the day must be augmented by it till it becomes equal in length to one month, to a revolution of the moon; and the final result will be that the earth will always turn the same side to the moon, just as the moon now turns always the same side to the earth. We find the same condition in reference to the satellites of the other planets. It is very probable that this peculiar position of the moon has been produced by tidal waves, which may have been very great at former times when the moon was a fluid melted mass, and exposed to tidal waves of far greater intensity than we observe at present. The loss, then, of mechanical energy going on in our system at present is very small indeed; but it is not zero. Now that the masses of the interplanetary space are all collected together into a small number of planets and satellites, the loss cannot be very great; but if we suppose that formerly this space was filled with a greater mass, that the temperature of the celestial bodies was higher, that they were more vaporous, and that greater atmospheres existed than now, the loss must have been greater.

We come at last to the question as to the origin of the heat of the sun and of the internal heat of a planet like our earth. I may remark here that an hypothesis concerning the first origin of our planetary system was formed by LaPlace. He endeavoured to explain only by this hypothesis the peculiar circumstance, that all the planets go round the sun nearly in the same plane—not exactly, but nearly, and all in the same direction; that they all rotate round their axis in the same direction, and that all the satellites go round their central planet in the same direction. There is only one exception with regard to the planets and satellites; the satellites of Uranus go round the planet nearly in a perpendicular direction. All the other bodies go round their central body in the same direction. This peculiar circumstance shows that these bodies did not come together from different parts of the universe, but that they must be connected by their origin—that the directions of their motions must have a common cause and a common origin. LaPlace explained these circumstances by the known hypothesis, that at first the mass of the sun and planets was spread out through the universe in the shape of mist, or perhaps a sort of dust, or as a shower of meteoric stones (they all give the same result)—that this mass was contracted by the force of gravity, which drew all the single parts to a common centre; and that these united into a ball of mist, and the more they approached and became condensed the more was their rotatory motion increased. We may suppose that they had at first a very small amount of rotatory motion, but in proportion as they approached the sun this motion was increased; and if the mist formed at first a spherical ball, it would be flattened by the centrifugal force into an ellipse, and the centrifugal force would drive away principally those parts which were at the greatest distance from the axis of rotation, therefore the equatorial part of such a nebular mass would be separated from the original mass by the centrifugal force. They might be united sometimes into a coherent ring like the ring of Saturn, or this ring of mist might be separated into several masses, giving a swarm of meteoric stones like that which gives the regular appearance of falling stars on our earth; or it might be divided into a smaller number of planets like those between the earth and Mars; or it could be united into a single planet. This hypothesis, invented only to explain the agreement in the direction of the motions of the planets, also explains the origin of the solar heat and the interior heat of our earth. This result was not at all known to LaPlace, and it is very remarkable that his hypothesis explains far more things than he himself supposed. For of course, if such a great mass were spread out through the spaces of the universe, and its single parts were to come together under the influence of gravitation, with a certain velocity, the destruction of their velocity, if they were united into a coherent mass, would give heat. The masses ought to become incandescent by being united, and we can calculate the amount of heat which would be produced by bringing together all these substances that form at present the mass of

the sun. This amount is so great that a quantity of water equal in mass to the body of the sun would have been heated by 22,000,000°, if all this heat could be collected at the same time in the interior. Of course, during the time when the mass was being united, a great part of the heat would leave and go out into space in the form of solar heat—rays of heat and light; but you see that an enormous amount of heat could be generated in this way. I have said, therefore, that we cannot be sure if the interior of the sun is not heated to such a degree that even the cooling by 3000° or 6000° is nothing in proportion, and does not sensibly diminish the temperature of the interior of the sun. You see that in this way the forces of gravitation, working through the great distances of interplanetary space, may produce results which are not at all comparable with those which are produced on our earth, where we are under very different conditions.

I am sorry that I have not been able to go more especially into the effects produced by solar heat in the inorganic actions on the surface of the earth. The time is rather short for so extended a subject, but I will try to refer to it in my next lecture, when I shall have to speak particularly of the effects of solar heat on vegetable life.

COURSE OF

LECTURES
ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D.,

Professor in University College, and Assistant-Physician to University College Hospital.

Lecture III.

(Continued from page 419.)

Pathological Relations of Urea.

Disease has an important influence on the amount of urea excreted by the kidneys. In some diseases it is abnormally increased; in others it is as strikingly diminished. Thus in all febrile affections, with one exception, namely, yellow fever, it is increased. In typhoid, for example, Parkes found as much as 57 grammes (883·5 grains) passed in the twenty-four hours; and Vogel, in one case, the enormous quantity of 78 grammes (1209 grains), all, or nearly all, of which, seeing that the patient was on low diet, must have come from the tissues. In typhus, febricula, and remittent, the urea is likewise found to be increased, though not to such an extent as in typhoid. The same remark is equally applicable to the different forms of exanthemata, as well as to inflammatory affections, such, for example, as pneumonia and meningitis. In the case of chronic cerebritis, already alluded to under a different head, I found the urea as high as 57·42 grammes (890 grains), and as the patient recovered it fell to 46·5 grammes (720·7 grains), and still later to 37·1 grammes (574 grains) in the twenty-four hours.

In some cases of epilepsy Dr. Sieveking found the urine so loaded with urea that the simple addition of nitric acid to the non-concentrated liquid caused an immediate formation of crystals of the nitrate. In one of his cases, in which I estimated the quantity, I found it amount to no less than 50 grammes per thousand. Unfortunately, no exact analyses have as yet been made on the twenty-four hours' urine of epileptics, but from the observations of Hensen it seems that although the urea may be increased during the seizure, it is in general diminished when estimated over the twenty-four hours.

Sanger found the daily excretion of urea diminished in cases of paralytic idiocy.

In a case of pyæmia, Vogel found 80 grammes (1240 grains) of urea; and Ringer has made the interesting observation that the quantity excreted stands in a certain relationship to the temperature of the body; for both in the hectic of phthisis, and in the paroxysms of ague it increases with the rise, and diminishes with the fall of the animal temperature. Scarlet fever is, however, an exception to the rule.

In diabetes the amount of urea is greatly increased; on one occasion I found 70 grammes (1085 grains) passed in the twenty-four hours, and that too in the case of a gentleman nearly 50 years of age.

The average amount yielded by the twenty-nine analyses of diabetic urine now before me is 47 grammes (728·5 grains)—still a large excess over the normal excretion. But this is, I believe, in a great measure due to the rich animal diet. In a case of accidental diabetes accompanying paralysis, following upon a fall on the back of the head, instead of an excess there was an actual diminution of the urea. The man, a strongly built and otherwise healthy labourer, passed only 19·99 grammes (308·4 grains) of urea a few days after the receipt of the injury, while he was passing 36·89 grains of sugar; whereas during the period of convalescence, three months afterwards, when the sugar had disappeared from his urine, he passed 24·7 grammes (382·8 grains). The quantity of the urine in the first instance was 952 c.c. (30 oz.), of a specific gravity of 1017; and in the second, 915 c.c. (29 oz.), of a specific gravity of 1023.

In diabetes insipidus (polydipsia) I have found the urea enormously increased. On one occasion a man, aged 56, passed 84·63 grammes (1311·76 grains) in the twenty-four hours. At the same time the urine amounted to 4030 c.c. (130 oz.).

There are a few diseases in which the excretion of urea appears to be diminished before the attack. Gout (Böcker) and asthma (Ringer) may be cited as examples.

In cholera, the quantity of urea in the urine, both absolutely and relatively, is very small. The total quantity of urea excreted in the twenty-four hours, in some cases, does not amount to more than 4 grammes (62 grains). As soon as the attack begins to pass off, the urea commences to increase, and during convalescence it may even be much greater than in health. 70 grammes = 1085 grains (Buhl).

The question which here suggests itself is, whether the decrease of urea in the urine of cholera is simply due to diminished elimination or to an absolute decrease in its formation? I am inclined to believe that the chief cause is the latter—viz., lessened formation, for while I can find no reason for its non-elimination, relatively to the amount of urine, if it be actually present in the blood, I see a potent one for its non-formation in the low temperature so characteristic of cholera. (We previously saw that in hectic and ague the urea rises and falls with the increase and diminution of animal heat). Diminished formation cannot, however, be said to be the cause of the small amount of urea excreted in Bright's disease and some other affections.

In the experiments made conjointly by Gegenbauer and myself on the blood and urine in albuminuria, we found the daily excretion of urea on one occasion as low as 3·3 grm. (51 grains) and this was clearly due, not to diminished formation, but to arrested elimination. The more albumen excreted, the less was the amount of urea; the less albumen excreted, the greater was the amount of urea in the urine.

In the 24 hours.	November 5. Grammes.	Grains.	November 17. Grammes.	Grains.	December 7. Grammes.	Grains.
Urea .	3·3 =	51·15	5·4 =	83·70	10·9 =	168·95
Albumen .	9·5 =	147·25	2·9 =	44·95	1·6 =	24·80

In cases of Bright's disease the urea is not only diminished in the urine, but is in excess in the blood. It may even make its appearance in all the fluids of the body. In dropsical exudations, in the humours of the eye, in the serum of the ventricles of the brain, in the milk, as well as in the vomited matters. On one occasion I found the blood of a patient who died of uræmic convulsions from Bright's disease quite acid (twelve hours after death), and in the serum taken from some large bullæ on the chest and thighs urea was detected in considerable quantity. It may here be mentioned that in yellow fever the urea, in like manner, appears to accumulate in the blood, so that in those cases it is not the formation, but only the excretion which is arrested. Dr. Porcher says that in some of the urines in the Charleston yellow-fever epidemic of 1846 there was an entire absence of urea. But this statement must be taken with a certain degree of reserve, as his mode of analysis was not sufficiently delicate to admit of his detecting small quantities of urea.

Most of the patients died with symptoms of uræmic poisoning.

(To be continued.)

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

Munificence.—Under the will of the late Eneas Mackintosh, Esq., of Montague-square, which has been sworn under £160,000, the Middlesex Hospital funds will benefit to the amount of £1000.

ORIGINAL COMMUNICATIONS.

ON THE EXTERNAL USE OF RED IODIDE (BINIODIDE) OF MERCURY IN CHRONIC GLANDULAR, AND OTHER TUMOURS.

By MICHAEL THOMAS SADLER, Jun., M.D. Lond., etc.

The value of biniodide of mercury in bronchocele when used as an external application is now pretty generally recognised, and it has probably been used still more largely and more frequently in Veterinary Surgery to reduce splints and other periosteal swellings in horses. I have not, however, seen any reference to its power in reducing glandular and other tumours in the human subject, and have therefore ventured to call attention to it, in the hope that Surgeons may be induced to give it a trial. I have used it for the last eighteen months in a great number of cases with the greatest benefit, and have seen swellings of many months' and even years' standing melt away in a few weeks. Perhaps it would be better for me to give a brief account of two or three cases, only premising that the number might easily be largely increased.

Case 1.—A child about 10 years of age was brought to me with a swelling just below the knee, about the size of a small hen's egg, which had been growing for many weeks, and began to alarm the parents. I ordered her to have a little of the ointment (containing sixty grains of the red iodide in an ounce) rubbed in every night, omitting a night or two when the skin began to turn red. In about a fortnight I saw her again, and found that the swelling had entirely disappeared.

Case 2.—A Medical friend requested me to see with him a woman who had had for ten or twelve years a slowly-growing and painful tumour in the left axilla; it was the size of a large fist, and pressed so much on the nerves as to cause great pain on every motion of the arm, so that she was unable to earn her living, which, being a poor widow, was a serious matter for her, so that she was anxious to have it removed if there was no other way of curing it. I suggested a trial of the biniodide of mercury, used as above, for a fortnight. At the end of that time the patient informed us that there was no improvement, and that she wished to have it removed. On exposing the armpits the diminution in size was so evident as to strike all who saw it, and the woman herself admitted that it was her impatience to be well which had induced her to deny the improvement. She was persuaded to give the ointment a little longer trial, and in another fortnight presented herself in a state of great alarm on account of what she said was the appearance of a second tumour. Examination, however, proved that the continued shrinking of the swelling (formed by enlargement of a number of glands which had coalesced) was beginning to separate it into its component parts. The poor woman went away somewhat comforted, and when I saw her a few days ago I found that a knot of rather enlarged glands was the only trace of the original tumour, and I have little doubt that even this trace would have disappeared had she not for some weeks discontinued the use of the ointment.

Case 3.—A gentleman of gouty family and constitution consulted me on account of a painless swelling in the situation of the bursa patellæ, rendering kneeling on that knee very uncomfortable. I requested him to rub in a little of the red ointment every night. He did so, and in the course of a few weeks the swelling had so much diminished that he could kneel without the slightest discomfort. The inconvenience being completely removed, he ceased to trouble himself with the remedy, so that I cannot report an entire removal of the swelling, but see no reason to doubt that a little longer perseverance with the ointment would dissipate the remaining thickening.

I have taken up sufficient of your space with cases, and will only add a few words on the manner in which I have used the remedy.

I have almost invariably used it without the exhibition of any other medicine, so that whatever benefit was produced must have been due to it alone. I have generally ordered it as an ointment containing sixty grains in an ounce of simple ointment; but believe that half that strength is better for persons with delicate skins, as it sometimes causes a sensation of burning pain when used too freely.

It should not be allowed to blister the skin, and when redness is produced it seems best to omit the rubbing for a night or two. It seems most useful in strumous swellings of the glands, but, as case 3 shows, is also of use in gouty swellings.

The only ill effect that I have seen is the burning pain sometimes caused, and that inconvenience may apparently be avoided by using a weaker ointment.

Barnsley.

THE READIEST METHOD OF LARYNGOSCOPIC AND AUTOLARYNGOSCOPIC INVESTIGATION.

By THOMAS JAMES WALKER, M.D. Lond.,

Surgeon to the Peterborough Dispensary and Infirmary; formerly Assistant-Physician and Pathologist to the Queen's Hospital, Birmingham.

Although the reports of cases successfully diagnosed by aid of the laryngoscope, which weekly appear in the Medical journals, prove that the value of this instrument is becoming known, and that the number of those working with it is steadily increasing, doubtless many members of our Profession are deterred from making the attempt to employ the speculum in the diagnosis and treatment of laryngeal disease, by their ignorance of the instruments which it is actually necessary that they should obtain, and by their unwillingness to encounter the considerable expense which, from the numerous complicated instruments described as laryngoscopes, they believe to be requisite, before they are provided with the necessary means for obtaining a view of the larynx.

Although one object of this paper is to describe an instrument which, as I have now modified it, is an addition to those among which the would-be laryngoscopist finds himself so confused, I hope to be able to show that, with a very simple apparatus, and at a comparatively small cost, the Practitioner may not only have the power of investigating any diseased larynx which may come under his notice, but also may have the opportunity of acquiring, by practice upon himself, that manual dexterity and familiar acquaintance with the normal appearance of the parts which experience alone can give.

The actual laryngoscope is, as most of the readers of this paper probably already know, simply a small reflector, which is held in the back of the throat in such a position as to throw the light down into the larynx, and in which the larynx, when thus illuminated, is reflected, and its image seen by the operator. This mirror is manufactured of various forms and sizes; I am in the habit of using two sizes of the round mirror, one about an inch and a quarter in diameter, and this I employ whenever it is admissible; and another, the diameter of which is half an inch less, for examining the throats of children and others, when it is not practicable to use the larger one.

With the large mirror a tolerable view of the larynx may be obtained, even on a dull day, by placing the patient opposite a large window, with his head in such a position that no shadow falls on the back of the palate, against which the mirror is held so as to reflect the diffused daylight down into the trachea; and the parts are still better illuminated by making the patient bring his mouth near to a bright gas jet or a lamp, and reflecting the light by the large mirror in a similar manner; but from neither of these sources do we get a sufficiently bright light for illuminating the larynx with the small mirror, for the investigation of delicate changes of structure, such as are often met with, nor for examination of the larynx in those cases where, from circumstances incidental to the case, but a small proportion of the light employed can be thrown into the larynx. The most perfect illumination is obtained by allowing the sunlight to fall directly on to the patient's face, so that it shall reach the laryngoscope, when held in the back of the pharynx, or, if the sun is high above the horizon, by reflecting the rays on to the face from a common looking-glass placed a little below the level of the patient's mouth, on a table, window-sill, or whatever may be convenient; but, as sunlight is not always available, it is necessary that we should have some accessory apparatus for concentrating artificial light, when we are desirous of making a minute inspection of the larynx on a dull day.

This concentration is usually effected by means of a concave reflector; but after having used for some time the reflectors of Semeleder, Czermak, etc., and having tried the improved forms which Dr. G. Johnson and others have devised, and which are erroneously called their laryngoscopes, I unhesitatingly recommend the form of globe condenser represented in

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the engraving, and which, when mounted as I shall describe, in addition to many advantages which it possesses as regards its illuminating powers, constitutes the most convenient form of apparatus for demonstrating and observing the larynx either of a patient or of the operator himself. The engraving is taken from a photograph, and the various heads are represented in the position which they actually occupied when every one of the five persons, including the patient, had a full view of the interior of the larynx.

The part of the instrument which is essential for concentrating the light is the glass globe (*a*), which is about six inches in diameter, and is filled with water, thus constituting a powerful concentrating lens. (A little corrosive sublimate may be dissolved in the water to prevent the growth of confervæ on the interior of the globe, necessitating frequent change of the water.) This globe is supported in a steel frame about 22 inches high, being attached to a crossbar (*b*), which slides upon the upright rods (*cc*), so that it can be moved up and down, and fixed at any level desired, by means of the thumb screws (*dd*). When the globe is placed immediately in front of a lamp, an Argand gas burner, or any other source of light, it concentrates the rays so as to throw a most brilliant light upon any object placed in front of it, the light being most brilliant at a distance of from twelve to twenty inches from the globe.

With the instrument thus constituted, and without the additional mirror which I shall now describe, I have long been in the habit of working. I have described its application in the *British Medical Journal*, and I have demonstrated its advantages over all the reflecting instruments to a large number of my Medical brethren. These advantages are,—1st. That from a flame of the same size a more brilliant light is obtained with the globe-condenser, than with any of the reflecting condensers commonly used. 2nd. That the apparatus being independent of the head of the operator, he is able to move and to bring his eye nearer to, or further from, the mouth of his patient, without interfering in any way with the illumination; whilst, on the other hand, with the reflectors which are attached to the head of the operator, there is but one position in which the operator must hold himself in order that the light may fall upon the face of the laryngoscope, any movement on his part withdrawing the light; nor, indeed, can the operator bring his eye nearer to the mouth of the patient, so as to observe more accurately the laryngeal image, without diminishing the intensity of the light. 3rd. The beam of light thrown on to the patient's face by the condenser is so wide, that he may move his head very considerably without withdrawing the face of the laryngoscope from the illuminated field. It is not, therefore, necessary to follow up the movements of the patient's head with the concentrating apparatus; the facility for doing which, when a mirror is used attached to some part of the head of the operator, is claimed for the method of concentrating light by reflectors, as an advantage by some of those who advocate this plan. But to the advantages which the apparatus thus possesses as a mere illuminating apparatus for the examination of the larynx of another, must be added the great one, that when constructed with the small mirror (*e*) (*vide* engraving), it constitutes the most convenient form of apparatus for autolaryngoscopy. A small plane mirror, 3⅓ inches long by 2½ wide, is attached to a sliding arm (*f g*) by a stiffly-working hinge at the corner (*f*); this hinge allows of the mirror's being inclined at any convenient angle, while it can be placed higher or lower on the stand by sliding the supporting arm up or down the upright rod (*c*), and fixing it in the desired position by the thumb-screw (*g*). If this mirror is placed immediately in front of the lower part of the globe, and made to incline at a convenient angle, the person whose throat is under observation can, by casting his eyes downwards, obtain in it a perfect view of the laryngoscope, and the image reflected in it; at the same time, two or more onlookers can, by placing their heads on a level with that of the person under observation, and looking into the mirror, get the same view of the fauces, the laryngoscope, and the laryngeal image, without in any way interfering with the view of the observer, who, seated opposite to the patient, holds the laryngoscope in position in the fauces, and looks directly into it through the open mouth of the patient. In the wood-cut a fifth person is represented, who, like the operator, looks directly into the laryngoscope; and it is evident that several other spectators, without either interfering with the transmission of the light from the lamp, or interposing any part of their body between the mirror (*e*) and those who are looking into it, might place themselves in a position in which they could see into the patient's mouth, and get a view of the larynx. Now, as there is a certain amount of manual neatness and dexterity in the management of the speculum, as well as a practical acquaintance with the normal appearance of the parts, required before a Practitioner can, without much inconvenience to his patient and some trouble to himself, acquire all the information which the laryngoscope is capable of affording in a case, the importance of having an instrument which facilitates his acquiring these requisites by practice upon himself cannot be overrated. It is true, that with no other instrument but the throat speculum and a dexterously-managed looking-glass, it is possible to obtain a view of one's own larynx; but, even to the practised laryngoscopist, this method presents difficulties, and these to the novice would appear almost insuperable.

I must refer my readers to the papers which I have published in the *British Medical Journal* for rules for the examination of the larynx by direct sunlight, without the aid of any other instrument than the laryngoscope itself; but this is without doubt the readiest method of examination when sunlight is available—indeed, in nine out of ten examinations which I make I employ no other instrument than the larger-sized laryngoscope, reflecting by it either the diffused daylight admitted through a window, a ray of sunlight thrown directly on to the patient's mouth from a small looking-glass, or at night the light from an ordinary gas-jet; but, in order that none of my Medical brethren may be deterred from employing that which I regard as the readiest method for autolaryngoscopic examination, as well as, under certain circumstances, for the examination of others, from not fully comprehending the mode of employing the globe condenser, I here subjoin some short rules, both for self-observation and the examination of others, by its assistance; and, as self-observation should be the first practice, I give directions for this first. It is better that the concentrated artificial light should be employed in a darkened room; but this is not absolutely necessary: thus, at the moment that the photograph was taken from which the engraving is copied, the light obtained from the lamp and condenser was so good that a perfect view of the larynx was obtainable by all the observers, although the daylight was, of course, strong enough for the photographer's purpose.

Rules for Auto-laryngoscopic Examination by the Laryngoscope and Dr. Walker's Globe-condenser.

1. Place your lamp or other source of light upon a table, a little way from the edge, and immediately in front of it place the condenser and stand, the back of the small mirror being directed towards the lamp.

2. Seat yourself in front of the table facing the lamp and condenser; when upright in your chair, your face should be about on a level with the globe, and twelve to eighteen inches distant from it.

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3. Now, by means of the thumb-screw *g (vide* engraving), fix the mirror just below the globe, and incline it at such an angle that, when seated erect with your mouth open, you can, by casting your eyes down, see in it the reflection of your pharynx.

4. Observing your face in the small mirror, you now, if necessary, alter the level of the globe-condenser, so that the bright stream of light shall fall on the lower part of your face. The adjustment of the level of the condenser is effected by loosening the thumb-screws *(dd)* with the right and left hand respectively, using them as handles to raise and depress the crossbar and globe, and tightening them when the globe is at its proper level.

5. Now open the mouth as widely as possible and protrude your tongue (it may be necessary to draw the tongue forward with the finger and thumb, using a napkin to prevent its slipping). You will now perceive in the mirror (*e*) whether you have fully exposed the fauces, or whether the tongue is in contact with the roof of the mouth. If the fauces are not exposed, draw a deep breath through the mouth, and you will perceive that the tongue is immediately depressed, and a very little practice will enable you to keep it so.

6. The fauces being fully exposed, you will now alter the inclination of your head, or slightly readjust the level of the condenser, so that the light falls on to the soft palate, the shadow of the tongue just resting upon the edge of the velum. When the light is properly adjusted, you close your mouth.

7. Take the laryngoscope between the thumb and two first fingers of the right hand, warm it, and test its temperature on the back of your hand, lest you burn your mouth.

8. The mouth being now opened and the tongue drawn forward with the finger and thumb of the left hand, protected by a napkin, all kept well out of the way to avoid throwing a shadow on the fauces, you introduce the laryngoscope with its face downwards, and steadily press its back flat against the soft palate and uvula, raising these slightly, but being very careful to avoid touching the posterior wall of the pharynx. The laryngoscope must be held so that it may be introduced without bringing any part of the hand in front of the mouth.

9. Should the introduction of the instrument induce a tendency to retch, draw a deep breath, pronounce in a prolonged note the vowel sounds *a* or *ah*, and you will thus conquer this tendency.

10. Hold the mirror in the fauces with its face directed downwards and forwards, not to either side; alter its inclination, so as to bring the various parts of the larynx into view; while by coughing, laughing, or cachinnating and articulating vowel sounds in high and low notes, you cause the parts to vary their position, and study the actions which most readily bring into view the different parts of the larynx.

By referring to the engraving at the commencement of this paper, it will be seen that, by the directions given above, the observer is made to take the position which the patient occupies in the group there delineated; and should he be anxious to demonstrate his larynx to others, this can readily be done if they will arrange their heads, some of them round the globe condenser, so as to look directly into the laryngoscope, and others round the observer's head, looking, as he does, into the small square mirror attached to the condenser.

In examining the larynx of a patient, it may not be desirable that he should himself see what is going on, in which case the little mirror will be turned so that he cannot see into it; but very frequently, and especially in the practice of rhinoscopy, it is desirable that the patient should be able to study the movement of his fauces and tongue, so as to keep them under control; and then the following directions must be followed:—

To Examine the Larynx of a Patient with the Laryngoscope and Walker's Globe Condenser.

1. The lamp and condenser being arranged as directed for self-observation, seat your patient erect in a chair facing the lamp, with his head distant about eighteen inches from the condenser.

2. Adjust the mirror so that the patient sees his opened mouth, and, if necessary, alter the level of the condenser as directed in the foregoing rules, so that the light falls upon the patient's mouth.

3. Seat yourself facing your patient, and at his right hand, so as to avoid coming between him and the light.

4. The patient's fauces being exposed and illuminated according to the directions for self-observation, you take his tongue between the forefinger and thumb of the left hand, guarded by a napkin or handkerchief, and draw it forward, while with the right hand you introduce the laryngoscope, warmed, and its temperature previously tested on your own cheek, into the mouth. The instrument is to be held between the thumb and the two first fingers, the little and ring finger resting against the cheek of the patient, so that the mirror may be held steadily against the soft palate.

6. Carefully avoid bringing the head too much in front of the globe condenser when you are looking into the laryngoscope, and carry the right hand well over to the left side of the patient, so that no part of it casts a shadow on to the fauces.

The directions given for self-observation will show the other points to be attended to in examining the larynx of a patient; and as I have already, in the papers published in the *British Medical Journal*, given more minute and complete rules for all points connected with laryngoscopic examination, excepting the use of the small mirror attached to the globe-condenser, I do not deem it necessary to repeat them here. The main points to which I wish to draw the attention of the readers of the *Medical Times and Gazette* are:—

1st. That much useful information may be obtained as to the state of the larynx with no other instruments than the small round speculums, of which each laryngoscopist should have at least two sizes.

2nd. That the best and simplest means of concentrating artificial light for laryngoscopic purposes is, by the use of a small glass globe of water, such as my globe-condenser, a plain water caraffe, or some other substitute.

3rd. That the arrangement of the globe-condenser figured in the engraving constitutes not only the most convenient instrument for concentrating light, but also is the best apparatus for the practice of auto-laryngoscopy, and for laryngoscopic demonstration.

4th. Consequently, that, in my opinion, a Practitioner possessing two round laryngoscopes, the globe-condenser, and a small palate spatula, for examining the posterior nares, Eustachian tubes, etc., which I have not here described, is provided with all the instruments, and these the best, necessary for observing his own larynx, and making himself master of the art of laryngoscopy; for observing the larynx, air-passages, etc., etc., of his patients; and for demonstrating these to others. Finally, I may add that, although some of the advantages which I claim for my method may not be allowed by those who have been long in the habit of employing the concave reflectors, there is one which is undeniable, namely, the comparative cheapness of the apparatus. Mr. Matthews, of Portugal-street, manufactures the stand, as I have described it, at a lower price than that at which any of the concave reflecting mirrors are sold, and at about a quarter of the price to which a laryngoscope, reflecting concentrator, and a special apparatus for self-observation, would amount.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

EXTRACTS FROM
A CLINICAL LECTURE
ON
CASES OF DISLOCATION OF THE FOOT BACKWARDS, WITH FRACTURE OF THE FIBULA.

(By Mr. HUTCHINSON.)

GENTLEMEN,—The effects produced by injuries at or near the ankle-joint are exceedingly varied. I select for our consideration to-day a single group of them—those, namely, in which there is a partial dislocation of the foot backwards. This is comparatively a very rare accident, and you will find but little detailed information respecting it in systematic works. We have at present in "Sophia" Ward a good example of it. The attention of the Profession has also been specially drawn to this form of injury by an action for malpraxis against a Surgeon which was tried a few weeks ago. I shall also have to mention the case of a gentleman now under my care in private.

Most of you are familiar with the common accident known as Pott's fracture; how that in it the foot is twisted outwards

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so that it rests on its inner edge, the fibula being broken a little higher than the joint, and the internal lateral ligament torn through. It involves, as Mr. Pott described it, the complete fracture of one bone, the complete rupture of one ligament, and a partial dislocation. The amount of displacement may vary very greatly; in some cases it is extreme, in others but slight. Now in the typical "Pott's fracture" the displacement of the foot is simply outwards. In a few exceptional instances, however, we find a modification of this, the foot being turned outwards, but also thrown backwards too. In these cases we still have the fracture of the fibula and the rupture, partial or complete, of the internal lateral ligament.

A case in which, a few weeks ago, a Surgeon was dragged as defendant into a court of law, was one of this kind. The following were its chief facts:—A bricklayer, wheeling on a plank, slipped off, and injured his foot. The Surgeon consulted recognised the true nature of the case, and reduced the dislocation. The foot became displaced again, and was again reduced. The man proved an unruly patient, frequently undoing the splints, and the result was that he got well with his heel projecting far behind, and his tibia resting on his scaphoid bone. The jury very properly found that the Surgeon was in no way responsible for this result. My friend Mr. Bryant, who was engaged on the trial, informs me that the man at present (eighteen months after the accident) has his heel drawn much upwards, and that his facility in walking is very limited. The fragments of the fibula, as is usual in such cases, are united at an angle, the lower fragment slanting upwards and forwards.

Mr. D., a stout, muscular man, first consulted me about eight months ago. It was then four months after his accident. A glance at his foot at once showed the nature of the injury he had received. The heel projected backwards, the tendo-Achillis presented a strongly-marked curve, and the tibia appeared to rest on the middle of the instep. On examining the outer maleolus, I found it in its proper position, but on a plane an inch and a-half behind that of the inner one. From the tip of the outer maleolus upwards, the lower part of the fibula slanted forwards, and at a distance of about three inches there was the callus of a united fracture, the upper and lower fragments having come into apposition at an obtuse angle. The inner malleolus had not been broken, nor was there any evidence of fracture of any part of the tibia. The following are the measurements of the two feet:—Right foot (injured one), from tip of inner maleolus to end of great toe, $6\frac{1}{4}$ inches; left foot, ditto, $7\frac{1}{4}$ inches; difference, sound foot $1\frac{1}{4}$ inch the longer. Right foot (injured one), from tip of one maleolus, round the heel, to the tip of the other, $9\frac{1}{4}$ inches; left foot, $7\frac{3}{4}$ inches; difference, injured foot $1\frac{1}{2}$ inch the longer.

It is important to mention in this case that Mr. D., after the accident—which was sustained in stepping backwards out of an omnibus—with some assistance actually walked home. In all probability he greatly increased the displacement by this achievement. I cannot learn that any attempt to reduce the dislocation was made in his case. Let us mark that, in contrast with the bricklayer's case, Mr. D.'s heel is not drawn up, and further, that he now enjoys very fair use of his foot. The other day, he walked a distance of two miles to my house, and he regularly follows his occupation as a commercial traveller.

The patient now before us, Mrs. N., is a stout, flabby woman, the subject of albuminuria and liable to "seizures," in which she loses her sight. In one of these she fell down stairs with her right leg doubled under her, and was on the same evening brought into the Hospital with a fractured fibula and displacement of the foot outwards and backwards. Mr. Spencer, who admitted her, tells me that he had great difficulty in reducing the displacement outwards, the skin being very tense over the inner maleolus and the bone threatening to come through. It was not found practicable to wholly remedy the displacement backwards, although it was effected to a great extent. Very efficient pressure was necessary to keep the bones in place. Mr. Spencer, whose skill and care I cannot too much praise, placed the limb on its outer side on a well-padded leg and foot splint, and then secured a second splint on the inner aspect of the tibia, so as to make very firm pressure just above the inner malleolus in a direction outwards. Even at the end of a week if this inner splint were removed the end of the tibia would at once rise. Of course, the limb was laid on its outer side and the knee well bent. We were very anxious, considering the woman's state of health, lest her soft tissues should not bear with impunity the pressure which was absolutely necessary to retain coaptation, but fortunately no ulceration took place. The result you now see. It is about two months since the accident; the ankle is still somewhat swollen, the external maleolus is too far behind the level of the internal one, and the tibia is a little too forward on the instep. She will, however, eventually have a most useful foot. Let us remark that in this case again the heel is not in the least drawn up. We must remember that the displacement was complicated, the foot being both outwards and backwards, which rendered the obtaining of perfect adjustment most difficult.

About four years ago I had under care in "Mary" Ward a woman of middle age, who had sustained a somewhat similar injury. In this case, however, there was but little displacement outwards. I did not see the patient till a week after the accident, and then the skin was in such a state from contusion that it was out of the question to attempt replacement. A week later, when the swelling had somewhat subsided, we put her under chloroform and made attempts at reduction with all the force that was justifiable, but without effect. The fear that the skin would give way induced us to desist. The woman left the Hospital with her tibia still resting at least half an inch too far forwards, but the heel was not drawn up, and no doubt she would soon be able to walk firmly.

And now, gentlemen, with reference to the diagnosis of this form of partial dislocation, let me beg of you to always bear in mind in practice the remark with which our lecture opened, that the effects of injury about the ankle joint are exceedingly varied. In every instance note most carefully the contour of the limb, and examine the points of bone; never assume that the case conforms itself to any recognised type, for it is very possible that it may not do so. Do not too hastily rest content with the discovery of one lesion,—as, for instance, fracture of the fibula. Remember that fracture of the fibula is a complication common to several different forms of injury. Great swelling usually occurs very quickly in these cases, and the contour of the foot and the prominences of the bone are much concealed. If the displacement backwards be considerable, you will usually recognise it easily by the prominence of the heel, the bow-like concavity of the tendo-Achillis, and the shortness of the foot anterior to the tibia. If it is only in slight degree, however, the diagnosis may be exceedingly difficult. Carefully estimate the relative position of the two maleoli, and ascertain whether the inner one is on a plane too far forward as regards its fellow. Note also whether the lower fragment of the fibula slants backwards. If there is any material displacement, this slanting obliquely backwards of the lower maleolus is almost certain to be present. The anterior border of the tibia will generally be concealed from observation by the swelling. In patients under the age of eighteen it is very possible that a separation of the lower epiphysis of the tibia may simulate a dislocation of the foot at the ankle-joint. Of this we have a good instance in the case of a lad now in "Richmond" Ward.

A correct diagnosis once made, the displacement backwards is not, as a rule, difficult to reduce. Flex the leg at the knee, and then, having the tibia held backwards by an assistant, firmly draw the foot forwards. It may facilitate reduction to extend the foot at the ankle, but bear in mind that when replacement is once effected the foot must be carefully kept at a right angle to the leg. In a few cases, however, reduction has been difficult or impossible. Sir Astley Cooper records one in which he could not succeed, and I have mentioned one above in which, at the end of a fortnight, even with the assistance of chloroform, I was quite unable to alter the position of the bones. The reason of this difficulty is not always clear. Should it appear to depend on spasm of the calf, section of the tendo-Achillis may be advisable.

In most cases, however, the real difficulty occurs in retaining the bones in position after reduction has been effected. There are but two means of which you can avail yourself in accomplishing this end—first, and by very far the most important, is direct pressure; and secondly, the relaxation of muscles. Now, the only muscle that you can relax with safety is the gastrocnemius, and of this you can relax only the upper heads where they arise from behind the condyles of the femur. The greater part of the muscles which extend the foot, inasmuch as they arise from the tibia or fibula below the knee, cannot be relaxed in the least by any amount of flexion at the latter joint. The only way to relax them would be to extend the foot at the ankle; and this must not be thought of, since it would put the tibia and astragalus in the very best position for again slipping. When we consider the anatomical fact to which I have adverted, it is really almost surprising

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that we should be able to gain anything by bending the knee; nevertheless, I believe practical Surgeons are unanimous as to the great advantage thus obtained. Mr. Pott, as is well known, considered this the main point. You will, therefore, bend the knee. Next a back splint, well padded, must be adjusted as a support for counter-pressure; then a splint in front of the tibia, or in front of the inner side, as the case may be, must be applied and firmly secured with straps. In the course of about a fortnight the tendency on the part of the bone to rise will probably cease, and the pressure may be relaxed or laid aside. During this period you will, of course, attend to the splints with the utmost anxiety and care. The state of the soft parts should be inspected almost daily in order to avoid sloughing from pressure; but an assistant should always at the time carefully hold the limb to prevent displacement. Sloughing is your Scylla—re-displacement your Charybdis; and between the two it will require great judgment to steer safely. I am well aware that you may read in books the strongest invectives against thus attempting to secure bones in place by direct and forcible pressure. All that I can reply is, that such invectives seem to me wholly without practical basis. There are many cases in which relaxation of muscles will not secure coaptation, and in which pressure will. With due caution pressure may be employed quite safely. In a few the only alternative is the allowing your patient to remain with an unreduced dislocation, and to leave his bed a cripple. Even in those instances in which, whether from the age and state of health of the patient, or the bruised condition of the soft parts, it may be impracticable to employ the means recommended, and you may be compelled to leave the displacement unreduced, there is still one important point requiring attention. I allude, of course, to the position of the heel. If the patient recovers with his heel retracted upwards, his foot will be of much less use to him than if he had the tarsus at right angles with his leg, the latter merely resting too far forwards. The cases I have adduced, more especially that of Mr. D., prove that the latter condition is quite compatible with good power of progression. In the class of cases now alluded to, therefore, the tendo-Achillis ought certainly to be divided, and the foot, if it cannot be kept forwards, at least kept in due position under the leg. Do not defer this in the belief that you can subsequently cut the tendon, and thus remedy the talipes equinus, for this hope may prove delusive, owing to the fact that the fibula is always broken, and that its lower fragment passes with the os calcis, and thus becoming united at right angles to its upper part, may entirely prevent subsequent efforts at replacement.

MIDDLESEX HOSPITAL.

CASE OF PHTHISIS COMBINED WITH EPILEPSY—DEATH—AUTOPSY—TUBERCLE IN THE BRAIN AND LUNGS.

(Under the care of Dr. GREENHOW.)

J. W., aged 50, butler, admitted an out-patient June 20, 1862. Very pallid, and of unhealthy aspect. Had been in good health until he took cold in the month of March previous, from which time he had suffered from pain in the chest near the right nipple, and from dry, hacking cough. Slight dulness on percussion, and deficient expansion of upper right side of chest, where also the respiration is harsh and tubular, but free from moist sounds. Patient complained of headache and vertigo.

August 29.—Much improved in general health, and cough gone, but physical signs as before. Still complains of headache.

November 21.—Has been out of town since last report. Headache and vertigo have been persistent. Pulse 78; feeble. Pupils of equal size. Has very slight cough and dyspnœa. No appreciable change in the physical signs.

February 5, 1864.—Presented himself after an absence of more than a year, during the greater part of which time he had not been troubled with cough or dyspnœa, but had never been free from headache. While in the country had had three fits on the morning of November 30, 1863, which came on without warning, and in which he became unconscious, fell down and was convulsed, with slight foaming at the mouth. Did not recover his recollection for many hours, and was not perfectly himself until the following day. Memory has been impaired since these fits, which are the only ones he has ever had. Has also since then suffered frequently from cramp in the feet, and constantly, day and night, from dull, heavy, frontal headache, but no longer has vertigo. Has no paralysis, numbness, nor formication. Is still of pallid and unhealthy aspect. Sleeps badly. Pulse 86, feeble. Has been suffering again since Christmas from cough and dyspnœa, and now presents the physical signs of phthisis in both lungs. Urine slightly albuminous.

March 1.—Acute bronchitis having supervened, patient was admitted into Hospital, where he gradually sank, and died on March 13. While in Hospital he was very sleepless, exceedingly sensitive to noises, and frequently incoherent.

Autopsy, Sixteen Hours after Death.—Head: Skull-cap extremely dense and thick. Inner surface marked with deep pits along the mesial line corresponding to large Pacchionian bodies. Dura mater somewhat firmly adherent to the bones. Arachnoid over the hemispheres opaque, in patches. A large amount of sub-arachnoid fluid. Depressions between the convolutions very deep. On the inner surface of posterior lobe of right hemisphere, situated at the bottom of a deep convolution and firmly adherent to the grey matter, was a firm, spherical, opaque, yellow body, the size of a small nut, which, under the microscope, had all the characters of tubercular matter. The membranes at base of brain normal in appearance, except at one point at the commencement of the left fissura Sylvii, where there was a small opaque granule beneath the arachnoid, resembling a tubercle. The substance of the hemispheres was firm and very vascular. The ventricles contained about two drachms of serum. The rest of brain normal. Weighed 48 oz. *Thorax:* On the right side the lung was firmly attached to the thoracic walls at every point; on the left the pleura was free from adhesions. The right lung was completely solid throughout, and was much broken down in removing it from the chest. It was studded from apex to base with very minute yellow granules, set close together, giving it a finely granular appearance; here and there, especially in the lower lobe, there occurred a space where these were absent, and there the lung appeared to be in a state of red hepatisation. At the apex were two or three small, irregular cavities. The left lung was much more bulky than the right, and its borders and surfaces emphysematous in parts. On cutting into it, the upper part was solidified by yellow tubercle, and contained some small cavities. The lower part of the upper lobe and the lower lobe showed numerous circumscribed circular patches, where the lung was studded with minute yellow granules, as on the right lung, and here and there were small patches of hepatisation.

HEREFORD INFIRMARY.

REPORT OF A CASE OF TRAUMATIC TETANUS TREATED BY ACONITE AND NICOTINE.

(Under the care of Mr. CAM.)

For the following case and remarks we are indebted to Mr. Beavan, House-Surgeon:—

Thomas L., aged 37, a gentleman's servant, on the 20th of February last met with an accident from a thrashing-machine which deprived him of the index, and portions of the middle and ring fingers of the left hand, the laceration extending about an inch into the dorsum and palm. The wound had been dressed by a Surgeon, and he was admitted into the Infirmary on February 22, when the sutures were removed and replaced by adhesive plaster. He was in his usual health, and the hand looked well.

On March 1, the tenth day after the injury, he complained of stiffness between the shoulders, and on the 3rd took to his bed. He was then flushed and perspiring, and troubled with dyspnœa. A dose of calomel and colocynth was administered, and a free evacuation of the bowels followed. On the evening of the next day (4th) the stiffness had extended to the jaw, and he had had some muscular twitches. Two grains of calomel and a quarter of a grain of opium were given every four hours during the night.

5th.—This morning his symptoms were much more marked, the teeth were clenched, the corners of the mouth retracted, giving to the countenance a peculiar smile; the cervical muscles rigid and prominent; lumbar and abdominal muscles hard. He had pain at the pit of the stomach extending to the back, and frequent but not severe opisthotonic spasm; deglutition not seriously impaired; the skin was bathed in perspiration; pupils contracted; pulse 120; respiration 34 per minute; mind calm, and free from extreme anxiety. Wine and beef-tea *ad libitum* were ordered, and half a grain of extract of cannabis indica given every three hours, the dose being increased to a grain hourly, and finally to two grains.

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6th.—Has had a bad night; the spasms continue, especially on the approach of sleep. Ordered eight minims of Fleming's tincture of aconite immediately, to be followed by four minims every hour. 8 p.m.—The spasm and rigidity have somewhat diminished, the former affecting chiefly the muscles of the hip and thigh. He lies with the lower extremities semi-flexed; pulse 100—96; pupils natural. He takes food at intervals.

7th.—Has slept a little during the night; spasms unaltered; pulse 104; respiration 32. The dose of tincture of aconite increased to six minims hourly, and an aperient administered consisting of one drop of croton oil and ten grains of extract of colocynth, which acted freely. 9 p.m.—Rigidity much less; spasms in lower extremities frequent, but not very painful; slight opisthotonos; pulse and respiration unchanged; suppuration in wound much diminished. He has felt some tingling of the fingers to-day for the first time.

8th.—A good night, with more sleep than heretofore; the spasms are weaker; pulse 84; surface warm and perspiring; pupils natural. At 5 p.m. the dose of tincture of aconite was increased to eight minims hourly. 6 p.m.—Pulse 100; respiration 32; the spasms are rather more violent; tingling of hands and feet continues.

9th, 1 a.m.—The spasms are stronger than they have been before, and appear to cause him intense pain. He cries loudly when they come on. At half-past twelve eight minims of the aconite were administered, and now ten additional minims—these large doses not having the effect of controlling or even weakening the violence of the attacks. At half-past one a drop of nicotine dissolved in spirits of wine and added to two tablespoonfuls of wine, was given. His pulse was then 120; respiration, 32. In less than five minutes his eyes closed, and he became more tranquil, breathed more freely, and within twenty minutes fell into a sound sleep of one hour's duration. 2 a.m.—Pulse, 108. 3 a.m.—Pulse, 92. He is able to put out his tongue. Sweating continues, but clammy, and devoid of snuff odour. 5 a.m.—He took a second drop of nicotine. 9 a.m.—Has had three or four hours' sleep, is refreshed, and complains but little of pain. 2 p.m.—During the morning he had frequent slight spasm, but slept at intervals. Rigidity of upper and lower extremities, and masseters continues. Pulse, 100; pupils natural. Given one drop of nicotine. 4 p.m.—Nicotine repeated. 10 p.m.—Pulse, 140; respiration 36—40. Has rambling delirium; the arms are curved; spasms continue, and affect the right arm more than the left.

10th, 10 a.m.—Pulse, 120. Abdomen covered with a pustular-looking eruption. Lower maxilla falls as he dozes; but he is unable to open his mouth. He died at 11 this morning after severe convulsion.

Remarks.—The above case appears to confirm the observations of Professor Haughton, of Dublin, on the use of nicotine in tetanus. It can, scarcely, however, be said to have afforded a fair test of the value of that alkaloid, inasmuch as it was not employed until the ninth day from the commencement of the symptoms, and when the disease was in active progress. Its influence over the severe spasm and its capability, in some cases at least, of alleviating acute suffering and procuring sleep will, I conceive, place it in a high rank among those means by which this fatal disease is henceforth to be combated. It may not be unworthy of remark that the treatment with aconite was during the early period satisfactory; and that much of that peculiar resistance to the specific action of powerful agents which characterises this disease was manifested during the exhibition of the latter remedy.

SUICIDE IN A CHILD.—A little girl, twelve years of age, of very excitable disposition, living at Havre, having been scolded by her parents, went and purchased some vitriol and drank it off. She soon became the subject of dreadful suffering, and notwithstanding every means tried, died in about six hours.

A GOOD HOSPITAL IMPROVEMENT. — It has been decided that in all the Paris Hospitals wards shall be established, in which all patients not confined to their beds may be allowed to assemble and pass their time in talking, or in the pursuit of the recreations which may be authorised. Not only will this measure prove of great service to those capable of availing themselves of it, but also to those who are unable to leave their beds, who by the absence of their more fortunate comrades will be able to enjoy more repose and tranquillity than is now possible. This arrangement has been for some time in satisfactory operation at the magnificent Marine Hospital at Brest.

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Medical Times and Gazette.

SATURDAY, APRIL 23.

LUNATIC DIETARIES.

WE ought to treat the subject of lunatic asylum dietaries as a branch of Hospital dietetics. Thus much being premised, we may proceed to say that up to a certain point the insane, as confined in asylums, are not all such as require the daily prescription of a special dietary. There is that in common with the majority which enables the Physician to lay down a dietary calculated for the use of all those who are free from specific complication, who are not in the usually-received sense "ill." The insane are really the subjects of disease, whose most general character is depression of vital energy, weakness, or imperfect nutrition. Hence it is that the inmates of an asylum must be supplied with food not only nutritious in quality, but abundant in quantity. Not only must there be found thereat all that is needful for the maintenance of life and health of the healthy, but for the restoration of force in the debilitated. This is the physical, the chemical view, if you please, to take of the matter; but there is another aspect in which it is to be regarded—namely, the psychical. Nothing is trivial in the arrangements made for the insane—so many are the paths pursued by the mind, so little to be anticipated the associations between external events and the consequent course of ideas in the morbid intellect. Whatever is calculated to inspire a feeling of disgust—whatever is inconsistent with cleanliness or decency—whatever is likely to shock the sensibilities of the class to which the patient belongs, should be religiously proscribed in an asylum for the insane; and, on the other hand, whatever is fitted to inspire a notion of comfort, to promote cheerfulness, to foster the proprieties of life, to lure away from unhappy thoughts, to implant ideas of a pleasing nature—with these things should the managers of asylums strive to surround their charge.

Having before us the diet tables of several of the county asylums for pauper lunatics, we shall first of all occupy ourselves with these. It will be seen that they are numerous enough without engaging too much of our space to give a fair idea of the sort of treatment which the insane poor receive in this respect at these institutions. In addition we have received from Dr. Down the dietary of the Asylum for Idiots at Earlswood.

In order to present the matter in the most intelligible form, we have represented in the following table the quantity of each article of diet supplied weekly to male patients in the different asylums, without distinguishing, except in the column for remarks and in the appended notes, the different meals at which they are given. This omission the reader will have no difficulty in filling in. And here is it to be remarked that it is a matter for regret that in the diet tables of the asylums the meat supplied is not always represented in weight as cooked and free from bone. It throws a difficulty in the way of calculating the supply when "uncooked meat" or "uncooked

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meat including bone" is mentioned. We have endeavoured to overcome it by the use of a table, resulting from certain experiments on the loss of weight sustained by meat in various modes of cooking given by Dr. Steele in the paper we formerly quoted, and which he read before the Association for the Promotion of Social Science last year. We reprint this table, then, here by way of parenthesis as our warrant for deducting as a fair average from the stated supply of "uncooked meat" one-fourth of its weight, and from "uncooked meat, including bone," one-third.

	Original Weight.	Loss in Cooking.	Loss in Bones, etc.	Total loss.
	lbs. oz.	lbs. oz.	lbs. oz.	Per cent.
Baking in close oven	126 4	24 8	8 2	25·8
Roasting with gas	87 0	29 0	6 8	40·0
,, before a fire	128 8	38 8	10 4	39·8
Boiling	156 0	30 8	9 6	29·3
	477 12	122 8	34 4	32·8

Again, we may state, in explanation of our table, that where Irish-stew or meat-pie are mentioned as the dinner for the day, we have calculated the supply of meat to each patient at two ounces, where any larger amount is not actually placed in the tables. This quantity is small, but appears to be about the average, the difference in total weight of pie or stew being made up with potatoes and other vegetables, the liquor of a former day's boiling of meat, and pie-crust. The following is the receipt for pie and stew followed at the Northampton Asylum, which may be taken as an example of the way in which those dishes are prepared in most of the rest:—"*Meat-Pie.*—2 oz. of uncooked meat, 12 oz. uncooked potatoes, 5 oz. of flour, with dripping. *Irish-Stew.*—2 oz. meat, 10 oz. uncooked potatoes, seasoned with pepper, salt, and onions. The liquor of the previous day's boiled meat is added to the Irish-stew." As solid meat appears in these dishes, we have included the days on which they are given for dinner, usually once or twice in the week, each of them, as among the "meat days." The column relating to "quantity of meat" will mostly give some idea of the frequency with which pie and stew are given.

Table showing the Weekly Allowance of different Articles of Food and Drink in Sixteen Asylums.

Name of Asylum.	Number of Meat days (including Stew or Pie).	Soup days.	Weekly quantity of Meat (cooked) in ounces.(a)	Weekly quantity of Bread in ounces.	Weekly quantity of Pudding (Suet or Rice).(e)	Weekly quantity of Vegetables in ounces.(f)	Weekly quantity of Beer in pints.	Weekly quantity of Tea or Coffee, in pints, or Cocoa with Milk and Sugar.	Weekly quantity of Milk Porridge, or Stirabout, in pints.	Weekly quantity of Cheese in ounces.	Weekly quantity of Butter in ounces.	Weekly quantity of Solid Food, including Piecrust, Oatmeal, and calculating Irish Stew as solid; 1 pint of Porridge calculated as 2 ounces of Meal.	Remarks.
Hanwell	7	—	28(b)	104	20	64	7(g)	10½	—	14	—	240	Dumplings on five days of the week, instead of bread at dinner. There is *no* butter on diet-table of males, but females have 8½ ozs. weekly in lieu of cheese.
Colney Hatch	7	—	29	104(c)	14	64	7(g)	7	—	14(c)	—	235	Tea, 1 pint daily, given to females at supper in lieu of beer; males only have tea in the afternoon, if employed, as an extra. Butter as at Hanwell, except that employed males get a little with their bread at tea.
Somerset	7	—	34	116(c)	16	144	3½(g)	21	—	—(c)	7	317	No bread stated as given with meat dinners except with stew. Male patients sometimes have milk-broth for breakfast in lieu of coffee, and those who have this have no butter.
Stafford	5	2	24	148(c)	20	At discretion.	10½(g)	7	—	14(c)	—	295	Females have tea, 1 pint daily, in lieu of beer for supper. Butter as at Hanwell.
Sussex	7	—	26	114(c)	12	56	3½(g)	14	—	—(c)	3½	227½	No butter at breakfast.
Lincoln	6	1	23	90(c)	12	52	3½(g)	11	3	—(c)	3½	212	Ditto.
N. & E. Rid. of Yorkshire.	6	1	21	112(d)	—	*Ad lib.*	2½(g)	Undefined.	10½	14	Undefined.	264½	Ditto. No milk mentioned, and butter only at supper for females, in lieu of cheese.
Northampton	7	—	31	99	—	33	4½	14	—	—	7	291	On two days in week either meat pie or suet pudding.
Durham	4	2	18	91	8	60	—	8	13½	—	2½	214½	Vegetables other than potatoes on Sundays only.
Worcester	3	2	18	116(c)	24	Undefined.	3½(g)	14	—	1(c)	7	231	Occasionally fish and fruit puddings.
Wilts	4	1	19½	98(c)	32	32	9½(g)	7	—	14(c)	3½	199	Females have butter in lieu of cheese at supper.
Nottingham	4	1	19	117(c)	32	44	3 (g)	17½	—	1(c)	4½	227½	Patients may have milk-porridge in lieu of tea or coffee and butter; a salad once a week.
Bristol	7	—	29	120(c)	—	80	3½(g)	14	—	—(c)	7	236	No bread at dinner except on two days in week, with Irish stew; fruit pies or puddings when in season.
Prestwich	6	1	28	114(c)	—	80	3½(g)	7	10½	—(c)	2½	248½	The extra bread, cheese, and beer for employed patients is given at breakfast and dinner.
Belfast	3	3	18	104½	—	See Remarks.	—	—	14	—	—	150½, or 390 where potatoes are substituted for part of the bread.	Patients may have 344 ozs. of potatoes in lieu of 48½ ozs. of bread at dinner, and in winter they have 20 pints of milk stirabout in lieu of 56 ozs. of bread. Employed patients have meat dinners five days a week, and 10 pints of milk additional per week.
Idiot Asylum, Earlswood.	7	—	28	84	42	70	—	3½	—	—	4½	226½	
Mean	—	—	24½	108½	21	65	5	—	—	—	3½		

(a) Calculating each dinner of stew or pie as containing 2 ozs. of meat, and allowing for loss in cooking to extent of one-fourth where quantities are stated in *uncooked* meat, and to extent of one-third when bone is included.
(b) Fruit and rhubarb pies in place of meat pies now and then in the season.
(c) Bread and cheese at lunch for employed patients extra.
(d) Idiots and employed patients have broth, bread, and vegetables for lunch extra.
(e) To this may be added for each asylum about 10 ozs. or 12 ozs. of pie-crust.
(f) Stews and pies also contain vegetables.
(g) Extra beer at lunch for employed patients, and at some asylums in the afternoon also, ½ pint each time.

In order to discuss the subject before us as distinctly as possible, we will consider it under the following heads, asking ourselves as we proceed how far the dietaries for lunatics can be called "liberal."

1. *Average Quantity of Solid Food.*—Without entering precisely, then, into the amount of nitrogenous, carbonaceous, or fatty matter supplied, we may say that, on the average, the quantity of food supplied cannot be regarded as insufficient for the maintenance of health. Basing a theoretical dietary upon the formula of Vierordt, Dr. Guy, in a paper recently communicated to the Statistical Society, thus states it as per week:—Bread, 112 oz.; potatoes, 56 oz.; and oatmeal,

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56 oz., or 224 oz. of solid food, with 7 pints of milk; and he has shown that with prisoners health may be maintained merely upon a diet of bread and potatoes—where the quantity of the two together amounts to about 300 oz. per week. In the Stafford Gaol the allowance quoted by Dr. Baly was 196 oz. of bread and 112 oz. of potatoes. For a man in health Dr. Letheby represents a physiological dietary as consisting of 140 oz. of bread, 84 oz. of meat, and 3·5 oz. of butter—equivalent to 227½ oz. of solid food. Now it will be seen that the mean allowance of solid food in the lunatic asylums in the table is 245½ oz., or from 16 oz. to 18 oz. in excess of these theoretical dietaries.

2. *Varieties as to the Amount of Solid Food given in Different Asylums.*—This is not only great, but difficult to account for. The highest amount is 317 oz. in the Somerset Asylum; the lowest among the English asylums is 199, in the Wilts. The Belfast Asylum stands alone, but the 390 oz. of bread, potatoes, and oatmeal, with 10 pints of milk, is in excess of Dr. Guy's "scientific" dietary, and also of that which has been found sufficient to maintain prisoners in Stafford Gaol. Of the English asylums there are only three where the amount of solid food supplied is less than 227½ oz., viz., Lincoln, 212 oz.; Northampton, 201; and Wilts, 199. The most abundant dietaries are those of Somerset, 317 oz.; Stafford, 295 oz.; and North and East Riding of Yorkshire, 264½ oz.

3. *Meat* is an essential element of a "liberal" diet, not only because it contains a large amount of nitrogenous and fatty matter in a small bulk, but because custom has associated one meal of animal food with the diet of the majority of English people. And in an asylum for the insane such habits must be regarded. Besides, Medical experience goes to show that it is an article of diet peculiarly suited to improve the strength and enrich the blood of the debilitated. Hence it should constitute a part of the food of the majority of the insane every day. There should be no "banyan days" in lunatic Hospitals; and the fact of this article being deficient in quantity in any dietary would place that asylum by so much lower than others in the scale of "liberality." Taking, now, the sixteen asylums on the table, we find that in seven meat, in greater or less quantity, and in one form or another, is given daily at dinner; in five it is given on six days of the week; in one on five days only; in three on four days only; and in two on three days only. The mean weekly quantity is 24½ ozs. (cooked and free from bone), and the extremes of quantity are 34 ozs. in the Somerset Asylum, and 18 ozs. in the Durham, Worcester, and Belfast Asylums. The asylums which supply their inmates with it most liberally are the Somerset and Northampton (31 ozs.), Bristol and Colney Hatch (29 ozs.), Hanwell, Prestwich, and Earlswood (28 ozs.), Sussex (26 ozs.), and Stafford (24 ozs.). With respect to those who do not give solid meat every day, it is right to say that, on the "maigre diet" days, soup is given in four asylums, but at Durham and Belfast there is one day, and at Worcester, Nottingham, and Wilts Asylums there are two days, on which neither meat nor soup appears on the table at dinner. In the last-named asylum, which we have already mentioned as that which gives the smallest amount of solid nutriment, we must add that on the one day when soup is given it consists merely of the liquor of the boiled meat, with peas and vegetables. If the boiled meat, then, given the day before is good for anything the animal element in the soup can only be analogous to the "point" with which the Irishman is said to qualify his meal of potatoes. It is very clear to us that the diet-table of this asylum at least demands reform.

4. *Cheese* is supplied to the patients to the extent of nearly a pound a-week in the two Middlesex asylums in which there is meat at dinner daily, and in three others—viz., Stafford, North and East Riding of Yorkshire, and Wilts—in which meat is not given every day. Considering the large percentage of total nutriment, three-fourths nitrogenous, contained in the sort of cheese used in asylums, the deficiency in meat appears fairly made up—that is to say, chemically; but cheese is not an article which weakened stomachs can always readily manage; for the most part it is given to males only at supper, and a lunch of bread and cheese to the workers in addition. It would be well, we think, if it could be done conveniently, to give to males the option of cheese or butter at supper.

5. *Bread* is supplied on an average to the extent of 108½ oz. weekly, the quantity varying from 148 to 91 oz. in the county asylums. At Earlswood it is 84 oz. This being the "staff of life" is the basis upon which, of course, all dietaries are built up; and hence we must expect to see the quantity supplemented, when small, by additional quantities of other nutritious food, of which wheat-flour, oatmeal, or rice form the principal constituents, in puddings or porridge. In the column relating to porridge each pint may be taken to represent 2 oz. of meal. Where meat is supplied abundantly, there the quantity of bread, pudding, and porridge is, of course, less—so much is not requisite; and where the meat is supplied in smaller quantity we find these elements of diet mostly larger. Still there are exceptions to both these observations. Thus in the Somerset and Stafford asylums, where the diet is very liberal, 132 and 168 oz. respectively of these articles are supplied per week; whereas at Durham, which stands the lowest as respects meat, stands lowest also as respects these equally important articles of food, only 105¾ oz. of them being given. Nor do we find from the table that persons who are employed get any addition. Bread should always be given with meat dinners, except where the dinner is meat pie. The addition is an appetising one, and adds with nearly all people to the enjoyment of a meal. With most people, in idea, at all events—and this is an important matter with the insane—it makes all the difference between "dining" and "feeding." Now, at Hanwell, Bristol, Lincoln, and Somerset, bread is only given when stew or soup forms the staple of the meal. On one occasion the Commissioners in Lunacy found that the patients had no bread even with their soup at the Warwick asylum, and very properly ordered the addition. At Hanwell dumplings are substituted for bread on five days of the week.

6. *Butter* is rarely supplied to male patients; the females in asylums almost universally have it in place of cheese at supper, but neither males nor females get any to moisten their bread at breakfast in the asylums on our list, except at Northampton, Stafford (females only), Durham, Somerset, Worcester, Welts, Nottingham, and Earlswood. In some of the others, indeed, milk porridge constitutes the breakfast; but there still remain those at Hanwell, Colney Hatch, Lincoln, Sussex, and Stafford (males) who have dry bread with their cocoa or coffee. This should be amended. Seven ounces a-week of butter is a very fair allowance for one person, and it is that given to male patients at Somerset, Northampton, Worcester, and Bristol, where cheese is not supplied. Other asylums which allow cheese give much less, and two—viz., Durham and Prestwich, who give no cheese—supply also the smallest quantity of butter in lieu of it, viz., 2½ oz. weekly—far too little.

7. The supply of *vegetables* of all kinds is abundant at nearly all the asylums. Somerset, liberal in everything else, is the most liberal here also. The Wilts Asylum gives least vegetables, only 32 oz.; and the Northampton 36 oz.; but the scale of liberality is also in both these institutions very low. The quantity in both these instances is much too small. There can be no excuse in county asylums for stinginess in respect of farm and garden produce. Salads and rhubarb pies, or puddings, when in season, should also appear on the dinner-table of every asylum occasionally. The large quantity of potatoes which, with milk, oatmeal, and meat, is given at Belfast is adapted to the ordinary diet of the people, and the whole forms a diet far more liberal than the lower orders of the Irish usually enjoy at home. Its great fault is its uniformity.

8. *Beer* is another element of a liberal diet which the Commissioners in Lunacy are in the habit of recommending. Durham, again, is here illiberal, giving none. The rest on our list allow on an average five pints per week. Hanwell

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and Colney Hatch allow seven pints, and Wilts nine and a-third. As Wilts, in other respects, is not remarkable for over-feeding its inmates, it is a matter of some curiosity to us to know the strength of the "malt" supplied. The absence of beer at dinner at Durham was commented upon by the Commissioners in 1861.

Tea and coffee or cocoa are supplied, with a sufficiency of milk and sugar or molasses, to the inmates of all the county asylums.

Our space, which we have already drawn upon very largely, will not permit us to enter into the subject of the dietaries of any but the county establishments. We can only say that, while in the best of the private asylums the diet table is abundant and unexceptionable, there are many respecting which grave faults are found by the Commissioners, as will be seen by any one who will take the trouble to look through their Annual Reports.

The arrangements of the meals in the county asylums demand a few remarks. All the patients who are in a position to do so take their meals together in the large dining-hall; and the advantages of this rule in promoting their comfortable serving are great, so long as the practice is not pushed too far for the purpose of vain display. When taken into the wards or galleries, the dinner is apt to be cold, and the meal not being taken under the eye of the superintendent is sometimes served in a slovenly manner. In 1861, indeed, the Commissioners found that at the Durham Asylum the patients, even in the dining-hall, had to eat their dinner without either knife or fork. At Colney Hatch, in the same year, they had to complain that the table-cloths were not changed often enough for cleanliness; and on visiting one of the male wards, where thirty-five patients were at dinner, they found that they had neither knives, forks, nor spoons, and learnt upon inquiry that for upwards of six months past they had been in the practice of eating their food with their fingers, and this although there were spoons in store in the ward. This was a ward in which, that year, a patient was strangled by another, unobserved by the attendants. At the Somerset Asylum, whose dietetic arrangements we have already frequently mentioned with commendation, a band plays during meal time. The arguments in favour of comfort and liberality in asylums for the insane may be stated in the words of Dr. Conolly:—

"Another particular," he says, "which is of consequence to all persons is especially so to insane persons in asylums: a supply of good and well-cooked food, liberal in quantity, punctually served. The monotony of asylum life is relieved by the certainty of comfortable meals at regular hours. Pauper patients may be habituated to making some personal preparations for the dinner-table, and patients of the higher class may readily be induced to dress for dinner. Insane people require a somewhat full diet, by which the body is nourished and the mind satisfied. The manner in which the meals are conducted is of great importance. . . To be well clothed, to have a comfortable bed, and sufficient food every day may, of course, be considered as having peculiarly comforting effects on pauper patients, too long accustomed to scanty fare and miserable lodging and wretched clothing. They often come to the asylum half starved, and good food is not unfrequently of far more consequence to them than medicine of any kind."—(*On the Treatment of the Insane.*)

These are the sentiments of one who had a regard to his charge as sick people whom he was to cure if possible, or to relieve if he could not cure. The following extract from a letter to the Commissioners in Lunacy represents the economical views of a committee of management:—

"The Visiting Commissioners in Lunacy do not appear sufficiently to bear in mind the fact that the Colney Hatch Asylum is established for pauper lunatics only, and that many luxuries and appliances suggested by them are quite unsuited to that class of patients, and could not be provided but at a cost which would be most justly complained of by the parishes chargeable for their support, and which would, even if granted to the patients during their residence in the asylum, tend most materially to aggravate the distress of those discharged as recovered, who, on return to their houses and former condition would have to forego those comforts which by long use had become almost necessaries."

It is difficult to see the extent to which a line of argument such as this would not conduct its originators if it were pushed to its legitimate results.

In all asylums the Medical officers have, as we are assured, unbounded liberty in modifying the diet for individual patients—the extent to which it is exercised we believe to be considerable. The last annual report of the Hanwell Asylum contains a table showing the extra diets ordered on the last day of each month. The articles enumerated embrace nearly every dietetic luxury that can easily be imagined as entering into a public Hospital. The Asylum contains about 1500 patients, and of these more than a third are constantly in receipt of some one or more of the extras mentioned. Dr. Down, too, has kindly furnished us with the diet list of Earlswood for October 9, and here we find that, while 118 patients dining in hall were on ordinary diet, thirty-nine were on what is there termed "full diet," which differs from that stated in our table in containing an excess of nearly all the ordinary articles supplied at each meal. Minced meat, rice pudding, porter, and wine were supplied to several patients also who needed it. Thus far, then, the Lunatic Asylums agree in the main with ordinary Hospitals for the sick.

THE WEEK.

GENERAL GARIBALDI.

We think it our duty to lay before the Profession an authentic account of the circumstances under which Garibaldi came under the Professional care of Mr. Fergusson. In the latter part of last summer that gentleman was consulted in his case, and the idea was entertained of Mr. Fergusson undertaking the journey to Caprera. Garibaldi, however, improved, and the project was abandoned. Six weeks before Garibaldi arrived in England Mr. Fergusson was again applied to by the General's friends, and it was arranged that during his visit he should have the benefit of Mr. Fergusson's opinion and advice. Accordingly, on the General's arrival at Stafford House, he immediately consulted Mr. Fergusson. It will be seen, therefore, that instead of Garibaldi's "visit to this country being quite unconnected with any seeking or necessity for Medical or Surgical opinion or treatment," the professional services of Mr. Fergusson were engaged for Garibaldi a considerable time before his arrival. The necessity for professional advice is completely proved by subsequent events. The continuous strain of body and mind to which the popular hero has been subjected has had such an effect on him as to induce Mr. Fergusson to interfere, and the consequence has been that Garibaldi has determined to curtail his visit. In another column will be found Mr. Fergusson's letters on the subject to the Duke of Sutherland and Mr. Seely. Of course we need scarcely say that the reports which have been circulated of there having been political reasons for the General's early departure are entirely founded on newspaper *canards*. The real fact is that he has been undergoing an amount of physical and mental labour and excitement since his arrival, for which he is completely unfitted by his state of health, and which could not be continued without positive danger. With regard to the condition of the injured limb, we have good authority for stating that in Mr. Fergusson's opinion there is bony ankylosis of the ankle-joint. There is at present no power of flexion or extension in that joint. There is some capability of lateral movement in the joints of the tarsus, which with time and use will in all probability be increased, but free motion in the ankle-joint itself cannot under the circumstances of the case be expected. Another report, however, on Garibaldi's case has been published in the form of a letter to the *Times* newspaper, by Professor Partridge. The amiable and accomplished Professor of Anatomy at King's College has, it will be remembered, from the beginning viewed Garibaldi's case through a medium of roseate hue. For the benefit of those of our readers who repose confidence in Mr. Partridge's opinion, we reprint his

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letter elsewhere. Its former part would be to us entirely incomprehensible, were it not that during the past week all England, from the high-born dames of the West-end *salons* down to the street Arabs of St. Giles's, has been light-headed with the Garibaldian fever, and we can only suppose that Mr. Partridge, on his visit to Stafford House, was attacked by the general epidemic. We hope that our French brethren will remember this when they read the statement that Garibaldi is indebted for his successful cure to the Italian Surgeons.

NEW REGULATIONS RESPECTING ASSISTANT-PHYSICIANS AND ASSISTANT-SURGEONS AT KING'S COLLEGE HOSPITAL.

Our readers in general, and especially those who had their education in King's College, will be glad to hear that at a late meeting of the Committee of the Council of the College it was determined—we believe unanimously—that the appointments of Assistant-Physician and Assistant-Surgeon to the Hospital should be made permanent. It is well known that a few years since the experiment was tried of increasing the staff of assistants to the Hospital, and of making these appointments temporary merely; the term of office varying from three to five years. A great deal of dissatisfaction was produced amongst the old King's College men by this step, and it was hoped that so soon as this just feeling was known the promoters of this innovation would rescind their resolution; unfortunately, however, the Council remained obstinate, and the consequence was that a great injury was done to the character of King's College as a Medical School. Some of the very best men educated there refused temporary appointments, and those who had influence in regulating the future education of young men exerted themselves to prevent them from entering the classes, consequently, the number of pupils greatly diminished, much to the regret of the old friends of this justly-famed school. It is now, however, seen that the experiment in question has failed to increase the usefulness and reputation of King's College as a place of Medical education, and the Council have wisely determined upon a step which all who have watched the progress of events during the last few years foresaw must be taken sooner or later. It is to be hoped that all the irritation and unpleasant feeling which has of late years existed will subside, and that henceforth King's College will hold the same position it formerly did as a Medical School amongst the members of our Profession and the public at large.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE XII.—FEBRUARY 27.

Anatomy of the Chimpanzee Continued.—Professor Huxley commenced by stating that since his last lecture Mr. John Wood had shown him drawings which he had made of a true "levator claviculæ," and also of an "abductor ossis metacarpi quinti" occurring in the human subject. He then proceeded to the consideration of certain muscles of the chimpanzee, which differ essentially in their insertion from the corresponding muscles in man. These are,—1. The pectoralis minor, which varies much in insertion in different chimpanzees which have been dissected; in Duvernoy's specimen it was attached to the coraco-clavicular ligament; in Wilder's, to the coracoid process on the right side, and the great tuberosity of the humerus on the left; in the one lately dissected by Professor Huxley and Mr. Flower it joined the tendon of the supra-spinatus muscle. In man its insertion is not constantly into the coracoid process. 2. The flexor longus pollicis of the chimpanzee presents a remarkable deviation from that of man. Arising in the usual manner, it gives a very slender tendon to the thumb, and a much larger, stronger tendon, which is the perforating flexor tendon of the index finger. The flexor profundus digitorum supplies only the third, fourth, and fifth fingers; in the palm of the hand the two tendons are closely united. The nearest approach to this arrangement which has been observed in the human subject is seen in those cases in which the flexor pollicis longus has given a slip to the tendon of the flexor profundus which goes to the index finger. 3. The gluteus maximus departs considerably from that of man, the nature of the departure chiefly having relation to the different attitude assumed by the chimpanzee. It is small and flat, causing little prominence of the buttock, and from its lower edge the muscular fibres are continued down on the outside of the thigh as far as the external condyle of the femur. This part was described by Duvernoy as a separate muscle, under the name of "ischio-femoral." 4. The two long flexors of the toes, the flexor hallucis and the flexor digitorum, cross each other as usual, and then divide into several tendons, the former supplying the hallux and the third and fourth digits, the latter the third and fifth digits; at their point of division they are partially blended together. It will be recollected that when describing these tendons in the human foot, it was demonstrated that the flexor hallucis joined in the supply, to a variable extent, of the second, third, and fourth toes, so that difference in the arrangement of these tendons in man and the chimpanzee is only a difference of detail.

There are certain muscles which are single, or nearly so, in man, but which are more or less divided into two in the chimpanzee. 1. The extensor minimi digiti appears to be constantly divided in the chimpanzee, one tendon going to the fourth, and the other to the fifth digits. This is, however, a not uncommon exceptional condition in man. 2. The extensor ossis metacarpi pollicis is a more or less completely double muscle in the chimpanzee, one tendon being inserted into the trapezium, and the other into the base of the metacarpal bone of the thumb. In man, as we have seen, the tendon is commonly divided for some distance from its insertion. 3. The tibialis anticus undergoes the same change in the chimpanzee—the division of the tendon observed commonly in the human foot being carried up into the muscular fibres, sometimes quite to their origin, so that the anterior portion has been described by Cuvier and other anatomists as a distinct muscle under the name of abductor hallucis longus. 4. In the interossei of the hand, the division which was noticed in man at their anterior extremity, one tendon being inserted into the base of the first phalanx, the other into the extensor tendon, is carried to a greater extent, each interosseous muscle of the human hand being represented by two distinct muscles in the chimpanzee, having in both cases precisely the same insertions.

The general result of this sketch of the myology of the limbs of the chimpanzee as compared with those of man, is to show a certain difference between the two, but in almost every case the differences found in the chimpanzee are either exaggerations of arrangements existing normally in man, or they are arrangements which are met with in him occasionally as varieties.

Some questions now remain of much interest, and about which much discussion has taken place of late. Is the terminal division of the fore-limb of the chimpanzee properly to be called a hand? and secondly, is the terminal division of the hind-limb to be called a foot or not? These questions have acquired their interest thus:—Tyson, a hundred and fifty years ago, struck by the great external resemblance of the hinder limb with its opposable thumb to a hand, remarked that these animals might be called "quadrumanous." The term was afterwards made use of in a technical sense by Blumenbach, Cuvier, and others, and it has frequently been said that the great distinction between man and apes was, that the former possess two hands and two feet, and the latter four hands. In the consideration of this question, it will be necessary first to settle the basis of the argument. If the grasping power conferred by an opposable digit be taken into consideration, we must call the terminal division of the hind limb of a bird or an opossum a hand equally with that of a monkey; but morphological analogies cannot be decided by physiological function, only by an exact comparison of the

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essential anatomical characters. We have seen that the terminal division of the fore-limb of the chimpanzee resembles the hand of man in all its essential muscular arrangements: it has, 1, long flexors and extensors; 2, a distinct extensor indicis; 3, an opponens pollicis; 4, the divaricators fundamentally disposed as in man. It differs from the hand of man in, 1, the union of the flexor pollicis and indicis; 2, the absence of an extensor primi internodii pollicis; 3, the division of the extensor ossis metacarpi; 4, the division of the interossei. The first and third are in some sense an approximation to foot arrangements; the second and fourth are special aberrations; but on the whole the differences are very unimportant, as compared with the great resemblances admitted on all sides; and, therefore, the term "hand" may properly be applied to this part in the chimpanzee.

If we examine in the same way the myology of the terminal division of the hind limb, we find it agreeing with the foot of man in the following characters:—1, the presence of a short flexor and extensor; 2, the intermingling of the long flexor tendons; 3, the presence of a peroneus longus; 4, the absence of a special extensor of the fifth digit; 5, the absence of an opponens hallucis, and presence of an opponens minimi digiti; 6, the single tendon of the interossei inserted into the first phalanx; 7, the presence of a transversus pedis; 8, the occasional presence of a flexor accessorius. On the other hand, there are the following deviations from the arrangement of the foot in man:—1, the more extensive division of the tibialis anticus; 2, the absence of the peroneus tertius; 3, the presence of a special abductor ossis metacarpi quinti; 4, the frequent absence of the flexor accessorius; 5, the origin of part of the short flexor from the deep flexor tendons; 6, the looseness of union of the flexor hallucis and flexor longus digitorum tendons, and the slight difference of their distribution; 7, the different distribution of one of the dorsal interossei. The greater part of these differences are, as we have seen, either differences of degree or occur as occasional varieties in the human foot, and they have no manner of weight when compared with the great resemblances; they are certainly not relatively greater than those found between the hand of man and the hand of the chipanzee. Therefore, the same process of reasoning which induces us to call the terminal division of the fore-limb of the chimpanzee a "hand," must also compel us to call the corresponding part of the hind-limb a "foot." If we revert to the osteological structure we shall find that the argument acquires even greater weight, and we must conclude that there is not the smallest ground for applying the term "four-handed" to the apes, if it is meant to imply by that term that there is any structural difference between their foot and that of man.

PARLIAMENTARY.

In the House of Lords, on Thursday, April 14, the bill empowering the judges to order flogging, in addition to imprisonment, in the sentences of accomplices in criminal assaults on women, passed through committee, after a short discussion.

In the House of Commons, Mr. Bazley asked the Secretary of State for India how many candidates for employment in the Medical Department for India were presented, and how many were the vacancies at the time of the competitive examination in January last, and again how many at the recent examination?

Sir C. Wood was understood to state, in reply, that for two or three years there had been no examination of candidates for the Indian Medical service.

On Friday, April 15, in the House of Commons, in answer to various questions on the subject of the new museums at South Kensington, Mr. Cowper said that thirty-two sets of designs for the new buildings had been sent in by public competition. Those designs were now hanging up in the Royal Gallery, where they were accessible at any time to hon. members. The judges would consist of five persons. Three of them would be architects of acknowledged reputation and experience, who were not at present practising their profession. One would be a painter, and the fifth would be an amateur. The proposed building was to occupy one front of the site lately occupied by the Exhibition, and there would be space enough to receive the Natural History Collection of the British Museum, and also the contents of the Museum of Patented Inventions, if it should be ultimately determined to remove those inventions to Kensington. But the first thing would be to get designs for the building, and the use to which the building should be put would be a matter for further consideration.

In reply to a question respecting Burlington House, Mr. Cowper said he believed that he would soon be able to lay on the table an estimate for erecting a National Gallery in the garden of Burlington House, which was one-half only of the site.

Mr. Crawford's motion advocating a uniform and fixed duty on sugars was lost by a majority of 133 to 17.

In the House of Commons on Monday, April 18, the House went into committee on the Penal Servitude Acts Amendment Bill. Upon the 4th clause, Mr. Hunt moved to add the words:—"If any holder of a licence, who shall be at large, shall fail to report himself to the chief police-station of the borough or district where he shall be on his arrival therein, and subsequently on the first day of each month, or shall change his locality without having previously notified the same to the police-station to which he last reported himself, he shall be deemed guilty of a misdemeanour, and may be summarily convicted thereof, and his licence shall be forthwith forfeited."

This amendment was opposed by Sir G. Grey; but after a long debate it was carried on a division by 148 to 120.

The remaining clauses were agreed to with a few amendments.

In the House of Lords on Tuesday, April 19, Lord Clarendon, referring to certain rumours relating to the departure of General Garibaldi, denied it was hastened by any representations on the part of the French Government. The Emperor perfectly understood the character of the reception Garibaldi had met in England, and the causes of the popular enthusiasm. No inquiries whatever had been made on the subject. As to the pending Conference on the affairs of Denmark, no concessions had been asked from the English Government, the Emperor of the French wishing that on all questions that might arise a cordial understanding should exist between the two countries.

Upon the report of amendments to the Punishment of Rape Bill,

The Earl of Carnarvon moved an amendment providing that the infliction of corporal punishment in the case of attempts to commit the offence should be discretionary with the judges, instead of compulsory, as it stood in the Bill.

The Lord Chancellor and Lord Wodehouse supported the amendment, and, after a short conversation, it was agreed to.

The report was then agreed to.

In the House of Commons, in reply to a question put by Mr. D. Griffith, Lord Palmerston also contradicted the report respecting the return of General Garibaldi and its causes. He believed, he said, that his visit would be curtailed, but solely out of regard for his health, which had suffered since his arrival in England.

FROM ABROAD.—VIOLATION OF PROFESSIONAL SECRESY IN FRANCE—THE OIDIUM OF THE VINE AS A POISONOUS AGENT.

The conviction of a Medical man in France for betrayal of Professional secresy (*Medical Times* March 26, p. 344), and the infliction of a heavy fine, with a long imprisonment, must not, it seems, be taken as a usual procedure. It has, in fact, excited some consternation in that country on the part of Medical Practitioners, which has elicited an explanation that this is an exceptional instance of severity due to the very bad conduct of the person inculpated. This Dr. Z it seems. being much in the habit of sueing his patients for their bills, contracted an acquaintance with M. N., a clerk of the office whence the writs issued, and became the attendant of himself and wife for some not very serious ailments. When N. asked him for his bill, the Doctor replied that he was well pleased to accept the good services he had rendered him in bringing the actions as remuneration for his services. However, N. having left the lawyer's office, and thus ceased to be useful to Z., the latter immediately sent him in a bill of 300 francs for attendance alleged to have been given him on

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account of syphilitic affections. N., indignantly denying the fact of his ever having had syphilis, refused payment, except as far as regarded 50 francs for attendance, which he acknowledged to have received for other affections. Thereupon the Doctor summoned him before the Tribunal, and the revelations made in the document he caused to be issued, and left with the porter of the house, constituted the charge of breach of Professional secresy. In this he stated that he had attended N. for two successive attacks of syphilis, as also his wife for syphilis, contracted from her husband. N., totally denying the truth of the statement made, brought the Doctor before the Tribunal, charging him with defamation and with betrayal of Professional secresy. At the hearing of the case, he emphatically denied that either he or his wife had been ever the subject of this disease, while the Doctor affirmed the veracity of his statement. The Tribunal, in giving its decision, stated that another procedure must be taken with respect to the charge of defamation; but pronounced the accused guilty, even on his own showing, as regarded the divulgation of Professional secrets. M. Chaudé, a Paris advocate, much accustomed to Medical cases, thus explains the bearing of the law in this matter:—"The grand principle of an obligation of secresy, which is an honour to the Profession of Medicine, does not, however, present any obstacle to just demands. When, as too often happens, a patient, forgetful of the services which have been rendered him, refuses the legitimate remuneration, the Practitioner has assuredly the right to carry his demand before the tribunals; but he must confine himself in his statement to the indication of the sum which is due to him for his attendances, without entering into any detail as to the affections treated. Doubtless, as the fees recoverable must be fixed in relation to the importance of the diseases, it may be necessary, in certain cases, to inform the judges with respect to the nature, course, and duration of such diseases, or the importance and number of the operations practised. These details must then be confided to the advocate who has been selected by the Practitioner, who, like himself, is obliged to secresy. Informed by his agency, the Court is enabled to reconcile the necessities of the defence with the law of secresy, and decide with a full knowledge of the circumstances. In this case, it is Justice herself who demands the revelations, which, given with discretion, cannot be regarded in the same light as violations of secresy. It is no divulgation made with the intention of doing harm, or with culpable thoughtlessness, the object being to overcome an unjustifiable resistance, and cause the triumph of a just pretension."

We all know the destruction which the *oïdium* has caused among the vines for many years past, and, according to a communication made by M. Collin to the Academy of Medicine, it may determine in man all the symptoms of true poisoning. In the three cases which he relates, the persons while cutting vines affected with *oïdium* produced a slight incision in the skin; and in all the same symptoms resulted. In a few days, shivering, loss of appetite, and fever with remissions set in. The cut, at first quite insignificant, soon assumed a bad aspect, and eventually became gangrenous, the limb itself being œdematous. The most remarkable circumstance was that the mouth became covered with *muguet*, which modern researches have shown to be a cryptagamous production, and which has, indeed, been termed by M. Gubler the *oïdium* of the mouth. M. Collin has instituted some experiments by the inoculation of animals with *oïdium*, the results of which will be communicated.

A LADY has been lecturing the members of the Brighton Literary and Scientific Institution on the impropriety of using "Baking Powder," a well-known compound of carbonate of soda and tartaric acid, instead of eggs. If this substance is really employed instead of eggs and butter, the persons who eat the pastry so made must be very indifferent judges of good living, if they do not find out the difference; but we believe that the addition of a very little of this powder, if nicely neutralised, to the crust of an apple dumpling is rather an improvement than not.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF WOLVERHAMPTON.

(Continued from page 432.)

Drainage.

The drainage of the town at the present moment is very imperfect. Surface drainage is general, and cesspools are abundant. Naturally, the town is well placed for drainage, being on a sandstone rock, and being situated so high that the flow from the drains is easy. There are also several outlets for the escape of water, while the sandstone acts as a filter for the removal of a large portion of the mere watery part of the sewage. Such errors as exist in the drainage of Wolverhampton will shortly be rectified. There is now a proposed plan for the complete drainage of the town. The plan has been inspected by Mr. Rawlinson on the part of the Government, and approved of by him; and sanction has been obtained from Sir George Grey for effecting a loan of £37,000, repayable by instalments, extending over a period of thirty years, for the purpose of carrying out the scheme.

The sewage of the town has been to a certain extent utilised, for the Town Council have for some time past had an arrangement with a firm of contractors (Messrs. Deans and Son) for the removal of night soil, etc., and this firm has disposed of the sewage to a large extent for application to agriculture. Last year, however, the Sanitary Committee, with the sanction of the council, entered into a contract with the Wolverhampton Manure Company for the removal of manure. The conditions are somewhat singular. The contract is for a term of fifteen years, dating from Lady-day, 1864. The removal, cleansing, etc., is to be effected by the contractors to the satisfaction of the Local Board, for which services the Board is to pay the contractors £500 for the first year of the term, £400 for the second, £300 for the third, £200 for the fourth, and £100 for the fifth year; for the remaining ten years no payment is to be made. The contractors have power to determine the contract at the end of any one year, upon giving the Local Board three calendar months' notice in writing. The Committee congratulate the Council that by this proceeding £1050 will be saved for the first year. I should think that the Wolverhampton Manure Company will congratulate itself also for many years. One would like to know something about the shares of so promising a society.

Site—Climate—Meteorology.

I have already stated that the town is situated on a sandstone rock. The soil is gravelly, with points at which clay is presented. Respecting the climate, it is at times damp, but much less so than Stafford and the neighbouring towns. The temperature is very variable, and the winds are often bleak and cutting. Meteorological records have not been kept until quite recently. They are now being preserved by Mr. Thrustans, a member of the Meteorological Society, and a well-known meteorologist; but I regret that his observations do not extend over a sufficient time to allow him to state anything positively as to the meteorological condition of the district. He has, however, organised a series of reports, which appear monthly in the *Wolverhampton Chronicle*, and which promise to be exceedingly useful. No observations have been taken with reference to climatic influences on disease.

Ventilation.

But little attention has been paid to the ventilation of private houses or of the public buildings. In the Agricultural Hall, however, there is carried out an original and simple mode of ventilation, consisting of shafts in the roof of the building, across each of which is a septum of wood, which can be made to open, by means of a cord, into four parts. This mode of ventilation is said to be very effective.

Streets.—Dwellings of the Poor.

Considering the irregular way in which the town of Wolverhampton has been built, the streets are much more commanding than might be supposed. In most cases they are wide and open, and as a general rule they are exceedingly well kept. The roadways are macadamised; the footways are paved, and kept in good order. I may remark that iron kerb is becoming more and more in use in Wolverhampton in the sideways, and appears to answer well, being durable, and affording a surface that allows the water rapidly to escape. The local Board is now very active in bringing the whole of

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the streets of the borough into an efficient state of repair. The streets of the town are well lighted with gas. The dwellings of the poor are much superior to those that are met with in most of our agricultural districts; but I learn that amongst the poorer classes the internal management is bad, and that the rooms are filthily dirty. Overcrowding, moreover, prevails to a great extent, with the evils consequent upon it.

Diet of the People.

Amongst the working classes animal diet is sought after, especially pork. We may say, indeed, that, as regards animal food, pork is the staple. After pork, tea and bread form the chief articles. These are taken nearly at every meal, and the very poorest live on them almost exclusively. Butter is a luxury; it is supplemented usually by lard or dripping. Cheese is also a luxury amongst the poor, and fish, with the exception of herrings, is little in demand. I have already referred to the luxurious habits of the colliers during their days of "play." The Irish poor, who abound in Wolverhampton, retain all their taste for the food of the Emerald Isle. The flesh of the "unclean animal" tempts them but little, so long as potatoes and butter-milk are within reach.

Prostitution.

Prostitution is rife in Wolverhampton. 265 women are known to the police as professed prostitutes. Of these, 30 are under 16 years of age. During the past year no fewer than 5 prostitutes have been added to the streets whose ages are under 16. There are no fewer than 97 brothels or houses of ill-fame. Venereal diseases are exceedingly prevalent, and extend amongst both sexes beyond the classes of those who inhabit, and of those who frequent, the brothel; for, as we have already seen, there are large numbers of unmarried women in the town who live with men, and who cannot be called prostitutes in the strict sense of the term, but who contract diseases, which originally came from the brothel, of the men with whom they cohabit. The number of questionable houses, including the brothels, amounts altogether to no less than 240.

Public-Houses and Beershops.

The number of licensed victuallers in the borough is 215; of beer-house keepers (to be drunk on the premises), 225; of beer-house keepers (not to be drunk on the premises), 12; of licensed refreshment houses, 28; of wine retailers (to be consumed on the premises), 7; of wine retailers (not to be consumed on the premises), 13. In all, 490; or 1 salesman of alcohol to 128 inhabitants.

Coroners' Inquests.

The number of inquests held during the year ending September 30, 1863, was 77. 56 of these were held on males; 21 on females. 31 males and 14 females were adults; 25 males and 7 females were children. The verdicts returned were—murder, 1; accidental death, 33; natural causes, 31; suicide, 3; manslaughter, 4; indefinite, 5. The number of cases of suicide was reduced one-half in 1863 as compared with 1862.

Crime and Criminals.

995 males and 351 females were proceeded against summarily last year, and 1023 depredators, offenders, and suspected persons were known to be at large during the year. Of persons apprehended and proceeded against by summonses before the justices during the year ending September, 1863, there were 1168 males and 373 females. Of these prisoners two were sent to reformatories and twelve were whipped.

Epidemics and Endemics.

No accurate records have been kept bearing upon the epidemic or endemic diseases of the town of Wolverhampton. Scarlet fever is exceedingly prevalent, as well as measles. Five years ago diphtheria broke out and spread with great violence and rapidity; one Medical man—Mr. Edwards—fell a victim to it; since that time it has scarcely been seen in the place.

Typhus and typhoid fevers are comparatively rare. Cholera visited Wolverhampton both in 1849 and 1854. The Wolverhampton district, indeed, was marked by Dr. Farr in the Registrar-General's report on the mortality of cholera, as the "Wolverhampton cholera field." In this field he included a space of twelve miles square at the southern extremity of Staffordshire; and in this space, during the epidemic of 1849, no less than 3275 persons died of cholera and diarrhœa. In the actual district of Wolverhampton the deaths amounted to 137 in 10,000. In the entire district of Willenhall, the population of which is 11,863, 160 males and 121 females were destroyed, and 167 persons fell victims between the 1st and 12th of December. The greatest number of cases occurred where drainage, sewerage, ventilation, and water were most wanted; and the classes amongst whom the disease prevailed most were labourers, locksmiths, miners, bootmakers, and keymakers. The whole of the deaths registered in the Wolverhampton parliamentary district, embracing in 1851 a population of 104,158, were from cholera, in 1849, 1365; and in 1854, 80. The deaths from diarrhœa were 243 in 1849, and 312 in 1854.

Small-pox has recently prevailed in Wolverhampton in the epidemic form, and has been rather severe.

Vaccination.

The practice of vaccination is not confined exclusively to the Parochial Medical Officers; but every Medical man who does vaccinate must have a permit from the Board of Guardians proving that he is a recognised vaccinator, otherwise he cannot receive fees. The fee is only 1s. 6d. per case. As a whole vaccination might be performed more efficiently, but the Medical men experience great difficulties owing to the facts that popular prejudices against vaccination are very strong, and that the Board of Guardians have not, until of late, enforced the law rigidly in respect to vaccination.

Etiology.

We have seen, in speaking of the practice of the Hospital, that the prevailing diseases in Wolverhampton are consumption, rheumatism, grinders' phthisis, lead colic and paralysis, stone, chorea connected with heart disease, and tapeworm. We have since seen that certain of the epidemics have a constant home in this town. Few accurate data exist that would lead to any safe inference as to the precise causes of *all* these diseases. The grinders' consumption we naturally trace to the exposure of the subjects of it to foreign material spread out in the air in fine particles. The lead paralysis we trace to the uncleanly habits of men who are working in lead. The epidemics we follow to their specific poisons; but, respecting the origin of the other disorders, obscurity prevails. It is interesting, however, to observe that chorea, which is a common disorder, appears to connect itself very closely with endocardial disease and with the rheumatic constitution. Still more interesting is the apparent and obvious connection between the consumption of large quantities of pork and the occurrence of tapeworm to so considerable an extent. I was anxious to ascertain whether amongst the members of a community, which may in truth be called a pork-feeding community, *trichina* disease had ever been seen; but I could obtain no evidence bearing upon the point. All that I could learn was that a rheumatoid affection of the muscles and urticaria were frequently seen as forms of disease. Of course it is more than possible, considering the trichina disorder has been so recently differentiated from various forms of so-called muscular rheumatism, that cases of trichiniasis may have occurred over and over again; and it is almost impossible to suppose from what we now know, that such cases have not occurred. Any way, in Wolverhampton there is perhaps the best field in England for new and important investigation regarding the disorder in question, and it is to be hoped that our Medical brethren there will soon report to us various important facts bearing upon the whole subject.

I cannot bring to a close the Sanitary History of Wolverhampton without referring to the very earnest labours of the Sanitary Committee of the Town Council. Their report, from which I have drawn many facts, is quite a statesmanlike document, and their activity during the year has been unceasing. In 1863 their inspectors gave notices against 100 nuisances; the town ditches were cleansed; whitewashing and cleansing were carried out on a large scale in the courts and streets; the sale of diseased meat was suppressed as thoroughly as could be done; the slaughter-houses were carefully inspected; attention of the owners of small house property was called to the desirability of an efficient supply of pure water; arrangements were made by the committee with Messrs. Wildsmith and Gaunt for the prevention of noxious and offensive vapours arising from the manufacture of their artificial manures; the Act of Parliament of last Session for the regulation of bakehouses was considered and ordered to be carried into effect; and a vigorous effort was made in the report of the committee to secure for Wolverhampton a Medical Officer of Health.

MEDICAL BIOGRAPHY OF WOLVERHAMPTON.

The Medical Biography of Wolverhampton is very shortly written. I cannot ascertain that any man who has added

anything really important to Medical scientific literature could be claimed by that town as an inhabitant, or as native born. My learned friend, Mr. Garner, of Stoke-on-Trent, has, however, supplied me with one or two facts of some interest, to which I may refer.

Dr. William Gibbons, M.D.—Dr. Gibbons is said by Mr. Garner to have been born at Wolverhampton, and to have left £500 to the Wolverhampton Charity School in the year 1728. The place and the date of his death are unknown. Dr. Gibbons has the reputation of having been the first man to introduce mahogany into this country.

Dr. Wilkes, M.D.—Dr. Wilkes resided during the last century at Willenhall. A large ancient mansion, close to the Grand Junction Railway, was the residence, Mr. Garner relates, of this eccentric man, one of the most celebrated of his locality. Wilkes appears to have been what is now called a hydropath, and over a medicinal spring hard by his house he placed this inscription:—"Fons oculis morbisque cutaneis diu celebris. Anno Domini, 1728." In this department of pseudo-medicine, Wilkes followed another eminent Staffordshire man, the Physician to Charles II., Sir John Flower, who, near to Lichfield, established actually a hydropathic establishment, to which the good people of his day flocked, as the people of these days have flocked to Grafenberg and Malvern.

In tracing out the Medical History of Wolverhampton, we have learned many valuable truths; not so many as ought to have been yielded to us by such a place, truly, but still many. And, above all, this one great truth, which, in time, will be reckoned as pertaining alike to statesman and Physician,—that disease and crime rest on the same basis, that one cannot exist without the other, and that to remove one is to remove both. *The diseases, the mortality, the population, and the meteorology of a district being known, deduce from those facts the amount of crime perpetrated by the said population.* That will be the question which will one day be put to the student,—a question which he will have to answer accurately, and which even now could be answered approximately.

ADDENDUM ON LITHOTOMY IN THE WOLVERHAMPTON HOSPITAL.

I am indebted to Mr. Nesbitt, the Senior Surgeon to the Wolverhampton Hospital, for the following table giving the lithotomy practice for four years—viz., from 1860 to 1863. In the table published on April 9, only two years of practice was rendered:—

Total Number of Cases of Stone in the Bladder admitted into the South Staffordshire General Hospital, from January 1, 1860, to December 31, 1863.

Males	25
Females	2
Total	27

Lithotomy (lateral).	Cured.	Died.	Cause of Death.
21	19	2	Exhaustion and secondary hæmorrhage.
Lithotrity.			
1	1	—	—
Total 22	20	2	

Average of deaths . . . 1 in 11
" age 16
" weight of stone . ʒiij.ss. (3½ dr.)
" duration in Hospital 50 days

Three cases died in Hospital before operation.

Females, 2. Urethra incised in both—one recovered and one died of traumatic peritonitis.

The stones are chiefly lithic, and of the whole number (27) 16 are from the town of Wolverhampton; 8 from the mining districts around; and 3 from the agricultural districts.

Table Showing the Comparative Prevalence of Stone in the Bladder at Different Ages, with the Result of Operation, whether by

	Lithotomy, Age.	Cured.	Relieved.	Died.	or Lithotrity. No.	Age.	Cured.
5	5 yrs. and under	5	—	—	1	47	1
7	5 " " 10..	6	—	1 Fem.	—	—	—
8	10 " " 20..	8	—	—	—	—	—
0	20 " " 30..	—	—	—	—	—	—
1	30 " " 40..	1 Fem.	—	—	—	—	—
2	40 " " 50..	2	—	—	—	—	—
0	50 " " 60..	—	—	—	—	—	—
2	60 " " 70..	—	—	2	—	—	—
0	70 " " 80..	—	—	—	—	—	—
	Total 25	22	—	3	1	—	1

Occupation had no effect in the production of stone.

Note on the Medical Staff of the Wolverhampton Hospital.

The name of Mr. Coleman, as Senior Consulting Surgeon, was accidentally omitted in the list of officers.

REVIEWS.

Dichter und Aerzte. Von Dr. RAPHAEL FINKENSTEIN, etc. *Poet and Physician; a Contribution to the History of Literature and the History of Medicine, with practical examples and critical remarks.* By Dr. RAPHAEL FINKENSTEIN. Breslau. 1864.

DR. RAPHAEL FINKENSTEIN has thought that he would be rendering a service to the future historians of literature and of physic by bringing into a small compass an account—illustrated with copious extracts—of all the poetry written by Physicians, and of all other poetry which, though not written by Physicians, yet has a bearing upon Physic. His little book contains accordingly much that is amusing, and a good deal that casts a light both upon the manners of various ages, and the progress of Medical opinion. That the number of the votaries of Esculapius who have also wooed the Muses is no inconsiderable one, is well known; but the list before us expands into a really formidable length, which makes us regret the more that there is no index attached whereby we might accurately gauge the numbers. We have our suspicions, also, of its completeness, for, on looking through it attentively, more than once, we have not observed the name of Akenside, though he does not omit to include Oliver Goldsmith among his *Medici*. One gratifying circumstance we may note, that among the poems *upon* the Doctors, of which there are a goodly number, the laudatory overshadowingly surpass the depreciatory. How far a judicious selection on Dr. Finkenstein's part may have contributed to this result we cannot say, and need not too scrupulously inquire. To judge by his volume, however, probably, next to the fair sex, the Medical Profession have been most bepraised, and we note with gratification that this laudation is expressed in many tongues. A grateful Arabian sets forth his wonder at a predecessor of Dr. Bright in terms which we (from the German version) venture thus to render:—

"Such Godlike help as Ibn Corra gives
Can any other to the sick man give?
By grace of Godlike wisdom he revives
The vanished art to make the dying live
As Jesus, Mary's Son, by simple word
Restored the dead, so he, with perfect ease,
And without effort, can new life afford,
And banish the foul demons of disease.
I did but show my urine, and his skill
At once discerned my secret malady
Deep hid 'twixt ribs and heart. Nor human ill
Is there, nor can be, but Ibn Corra's eye
Perceives, as spots look gross on polished steel."

It is probable that Ibn Corra had not "sent in his account," or that the Arabian College of Physicians in those days were stringent in their bye-laws, for as we read here in the original Latin,—

"Three faces has the Doctor: longed for, he
Appears angelic; giving ease, divine;
But let him, long delaying, ask his fee,
His horrid visage Satan's doth outshine."

The poetic literature of syphilis is represented at length, in all its ghastly fun; we gladly pass it by, observing only that fun seems a dominant element in the poetico-Medical mind, as from the prevailing *bon-hommie* of the Profession might have been expected. Yielding to the genial atmosphere in which we find ourselves, we are tempted to undertake the impossible task of translating a pun,—

"Would you grow slowly old, these precepts store:
Mess like a Doctor—take no Doctor's mess;
Physic, as food consumed, consumes the more;
Food used as physic will as surely bless."

Explorations in the Interior of the Labrador Peninsula, the Country of the Montagnais and Nasquapee Indians. By HENRY YOULE HIND, M.A., F.R.G.S., Professor of Chemistry and Geology in the University of Trinity College, Toronto, etc, 2 vols. London: Longmans. 1863.

WE extremely regret that the demands upon our space do not permit us to express more than the very great pleasure which these volumes have given us, with the strongest recommendation to our Medical and scientific readers to order them from their library or book-club. In giving an account of his

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adventures through wild regions unexplored by the European, the writer gives abundance of details respecting the Indian tribes, their manners, habits, and capacity, and the causes which slowly, but surely, are bringing them to extermination. Their mode of life is incompatible with that of a civilised race; moreover, they die of influenza when they settle among the missionaries of the coast. The accounts of huge tracts of "burnt country," in which the destruction of the existing vegetation by fire condemns the ground to long-continued barrenness, the mosquitoes of the lakes and swamps, the disappearance of animals hunted for their fur, and the traditions of the ancient wars of extermination amongst various tribes of Indians, all give the book a melancholy charm. The account of night blindness, which affects men after hard work on monotonous diet, and seems allied to scurvy, includes some incidents more thrilling than those in any romance. As for the Indians, they seem children of a larger youth, and their development to have stopped short of the "measure of a perfect man." Mr. Hind believes their physical strength and stamina to be below that of Europeans; they have all the vices of overgrown children, as gambling, licentiousness, and improvidence. Yet it is a melancholy thing that the poor creatures fade away visibly. These volumes are illustrated with capital woodcuts and chromolithographs. They are full of information about Labrador, which perhaps in the next generation may be visited by our children for a summer residence, and may have deer and salmon preserves as Scotland has now.

GENERAL CORRESPONDENCE.

AN OUNCE OF QUININE ADMINISTERED BY MISTAKE.

We most readily give insertion to the following letter, which has been placed at our disposal by Dr. Clapton, of St. Thomas's Hospital:—

Dear Dr. Clapton,—It has often been a matter of reflection to me how imperfect is our knowledge of the action of the various substances employed in medicine, when used in health and in disease, and how greatly this branch of Medical science needs improvement. I am brought to admit that the reason proceeds, on the one hand, from the complicated state of our organisation, in consequence of which the effect is modified by the simultaneous influences of many organs, and by a variety of circumstances not under our control; and that, on the other hand, there is still a great want of acquaintance with the properties, and, I dare say, with the affinities of the various substances to the organs and tissues of the human frame.

The first difficulty may certainly be almost insuperable; the last imposes on each of us the duty of communicating to our Medical brethren what may be of interest to them, especially in regard to those remedies most commonly employed. This same consideration influences me in transmitting to you a singular fact which occurred here lately. It is as follows:—

Dr. Hayler, a military Medical man, visited in barracks a soldier, suffering from a relapse of ague, and administered to him a small dose of sulphate of quinine. At the same time, he directed a man to fetch one ounce of the same remedy from the Hospital, in order that he might have it in readiness for any emergency. The man received the bottle; but, supposing that it was ordered for the patient just mentioned, he took it to [illegible]. In the presence of their comrades, they put the whole into a cup, adding sufficient water to make a paste of it; and the patient, although he found the medicine uncommonly bitter, did not leave off until he had taken it all.

Dr. Hayler, on learning that this enormous dose had been taken, at once visited the patient. The most careful investigation left no doubt of the fact; but, with all that, *incredibile dictu*, except a complete deafness and a kind of stupor, no other bad effect ensued, and no antidote was administered. He was directed to the Hospital, where he remained a week under observation, and left the establishment in the best state of health. The ague disappeared, probably never to return. I saw the man myself; he is a Swiss, named Albitz, aged 30, of small stature, and of a strong constitution.

It was not to be supposed that there was any important adulteration of the remedy in question, as all these preparations are subjected to a chemical investigation before they are admitted in the Hospital Dispensary.

Now, I do not intend to discuss the various points in respect of which this fact offers a peculiar interest, leaving the application of it to yourself. I merely hope that its publication may tend to diminish the popular prejudice still existing against this powerful and highly important remedy,—a prejudice which sometimes prevents us from using it. Professional men and patients may both learn once more how often symptoms, which we are so frequently led to consider the effect of quinine, ought rather to be attributed to the malady itself than to the medicine employed.

It would certainly be a difficult matter in this case to determine how much of the entire ounce was absorbed, and brought into circulation. A most careful inquiry as to the excreta for several days following its assumption would have facilitated an approximation of the amount. As this examination was not made, we can only infer, from the slight symptoms experienced by the patient, that a portion only of the quinine was absorbed. Though, therefore, I would not willingly encourage larger doses than we usually give, we may still feel induced by the present case to administer moderate doses in various affections besides ague, where the use of quinine is indicated. As, for instance, in remittent fevers, we need not wait too anxiously till evident intermission, remembering the *occasio præceps;* so in certain cases of typhoid fever, and in acute rheumatism, we may, perhaps, more frequently try it, less deterred by the fear of increasing a supposed inflammatory condition, or of promoting severe nervous excitement. I recollect some cases of phthisis pulmonum where I gave daily a few grains of quinine, guided by the observation that the fever in these individual instances was in no proportion to the local disease.

I am afraid, dear Dr. Clapton, I have taken up too much of your valuable time by giving you so long an account. Make what use of it you think proper, and shorten it as you please, only let the fact be known. I am, &c.

Rome, December, 1863. Dr. Taussig.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 12.

Mr. Partridge, President.

A paper, by Mr. Samuel Solly, was read, on

FOUR CASES OF INTESTINAL OBSTRUCTION, IN THREE OF WHICH THE COLON WAS OPENED IN THE LEFT LUMBAR REGION (AMUSSAT'S OPERATION).

The writer of this paper, after acknowledging the value of Mr. Cæsar Hawkins's contributions to the subject, proceeded to detail his own experience. The operation of opening the colon in the loin, in properly selected cases, he believed to be neither dangerous nor difficult; nor was it contraindicated by the occasional passage of small quantities of fæculent matter. The results, moreover, of the operation were far from unfavourable even where the stricture was due to malignant disease, and the relief afforded was so instant and decided as in the interest of humanity imperatively to call for Surgical interference. The first case, that of a labourer, aged 28, was one of rectal cancer, advancing with unusual rapidity, and dating only five months from admission. At the onset, diarrhœa, with slimy and bloody motions, was followed by intermittent symptoms of obstruction, which before long became constant. On admission, the abdomen was frightfully distended; the rectum did not admit the passage of even a small elastic catheter. Three days after, the descending colon was opened in the left lumbar region. Much flatus escaped, but hardly any fæces until some hours after the operation. This was followed by rapid improvement in every respect. Sixteen days later the patient left his bed, wearing a tent in the wound, and continued in fair health for three months, when chronic peritonitis set in, probably from extension of the primary disease, and slowly advanced to a fatal termination. The second case, that of a railway clerk, was of eighteen months' standing. It had been very gradual in its access, and palliated during the last month by passage of rectum bougies twice a week. On admission, the symptoms, both local and general, were very severe. At the operation much fæculent matter was evacuated, and the relief obtained was very de-

cided, lasting for six weeks, when sudden collapse, partially due to mental causes, was very rapidly followed by death. Post-mortem examination was refused. The third case had occurred very recently. A bank cashier, aged fifty-four, of active and temperate habits, had begun about a year previously to suffer from constant tenesmus, with from five to seven evacuations daily; these were on three or four occasions accompanied by blood. Seven months later he consulted the author, and extensive carcinoma was found partially occluding the bowel. During the following five months he could evacuate the bowel without much distress; but at the commencement of the present year complete obstruction took place, accompanied by great distension of the abdomen, for which, ten days later, he was admitted into St. Thomas's Hospital. On admission he complained of dyspnœa and retching, but without actual vomiting. A nodular mass could be felt projecting into the rectum, hard and inelastic, almost obliterating the canal. The following day an incision was made midway between the last rib and the iliac crest, horizontal, with a slight inclination upwards and outwards, from three inches and a half to four inches long. The erector spinor was partially divided, and then the quadratus lumborum inwards, on a director, to the extent of an inch and a half. The abdominal fascia was similarly treated, leaving the bowel exposed; this was fixed by means of two silk sutures to the edges of the wound, and the gut opened transversely by means of scissors. Very little blood was lost, and three pints of liquid fæces came away, with intense relief. During the afternoon more liquid fæcal matter was discharged per anum. On the following day the pulse was 86; he had slept well, and eaten a chop for dinner. The wound showed no inclination to close, and slight prolapse of the bowel was easily checked by an oiled sponge plug. For six days he did very well, except that there was a tendency to the formation of bed-sores. Thirteen days after the operation he sat up two hours daily, and seemed better, fæces passing both by the wound and anus. But on the twenty-first day collapse, vomiting, and swelling of the face came on, followed by great dyspnœa and extensive mucous crepitation in the chest, which increased so rapidly as to carry him off in a few hours. At a post-mortem examination, tubercle was found in both lungs, which were œdematous, with much injection of the bronchial tubes. The cæcum was distended by gas, and was adherent to the sheath of the right psoas muscle, in which was an abscess extending to its origin, containing several ounces of thin fetid pus. There was a free opening in the descending colon, where it was uncovered by peritoneum, and its edges were adherent to the wound. The sigmoid flexure contained solid fæcal matter. The rectum was embedded in a firm mass of infiltrated tissues, adherent to the pelvis posteriorly and to the bladder in front. The deposit was firm, fibrous, and juicy. A softer growth projected inwards round the whole circumference of the bowel, so as almost entirely to obstruct it; below the tumour was an ulcerated surface of the intestines, two or more inches across, where the coats of the bowel were entirely destroyed. The scirrhous mass under the microscope showed fibrous tissue, with cells of various sizes, mostly rouud, and containing minute oil globules. The liver contained several masses of scirrhus, most of them presenting traces of central degeneration. The fourth case resembled the preceding up to a certain point, where it diverged in consequence of the operation not having been performed, and the patient dying rapidly from rupture of the bowel. W. C., aged 55, a member of the College of Surgeons, was a ruddy and robust man, of very active habits, subject to no illness except occasional attacks of gout. In April, 1863, he had a severe attack of what he termed colic, for which his father-in-law, a retired Practitioner, successfully treated him. Even at that period Mr. Solly saw reason to diagnose stricture of the large intestine, though the patient attributed his symptoms to gout, and did not formally request his advice until two months later. On a first visit he was in great pain, and the abdomen was so tender as to preclude close examination. Palliative treatment mitigated the symptoms for a fortnight, and then the author was again hastily summoned to Tunbridge Wells. Examination of the rectum by means of the finger and a soft bougie revealed an obstruction at its upper part. The abdomen was intensely distended with flatus, although small quantities of fæcal matter were once or twice evacuated. It was suggested to open the descending colon in the left lumbar region, but postponed for the opinion of an eminent Surgeon, who came to the conclusion that it was not desirable. Accordingly Mr. Solly unwillingly relinquished the proposal under protest. Within twenty-four hours the patient died in great agony, with symptoms of ruptured bowel. On post-mortem examination, the abdomen was tense, and prominent above the umbilicus. The lower part of the descending colon presented a small perforation, from which half an ounce of fæcal matter had escaped. There were no signs of recent peritonitis; and the intestines were healthy except at the sigmoid flexure, where a mass occupied the interior of the gut, of a scirrhous hardness, measuring over three inches across. Several pulpy, lobulated portions of this occupied the calibre of the tube, fitting into each other like cogs of wheels. No other morbid condition was found. Before opening the abdomen a trocar had been introduced at the spot where the proposed operation would have been performed, and its point was found in the intestine an inch and a-half above the diseased mass. In commenting on this case, it was noticed that death had obviously been the result of obstruction, not of any rapid malignant growth, and that life would undoubtedly have been prolonged by the operation for an indefinite period. Moreover, the valvular form of the obstacle was pointed out, and the possibility of the original channel becoming pervious when the accumulation above was removed by operation, as had actually occurred in the third case. Lastly, attention was directed to the fact, already noticed by Mr. Quain in his work on this subject, that obstruction might be complete and prove fatal even when the autopsy did not exhibit total occlusion of the intestinal canal. (A drawing of a portion of the intestine in this case was exhibited.)

Dr. Bell rose for the purpose of making a few remarks on the interesting paper which had just been read, not only from the impression that in advocating a new operation or mode of treatment it was of the utmost importance that the data on which we proceed should be correct and well founded, but because one of the cases (the fourth) referred to by Mr. Solly occurred in a patient of his (Dr. Bell's), in regard to which he thought he could give such information as would enable the Society to come to a just conclusion on the subject. This patient came under his care in the month of March, 1863, suffering from dyspeptic symptoms; these were relieved, and he then went on a visit to some friends, where he over-exerted himself, and he returned worse in health than when he left home. He called on Dr. Bell soon after his return, and left a message saying he wished to see him. Dr. Bell in consequence saw him on May 6, and, from his sufferings, was induced to examine him in the recumbent posture, when he discovered a tumour, of the size of a cricket-ball, about three inches below the umbilicus and rather to the left of the median line. The tumour could be readily distinguished from the folds of the intestine by percussion, which, owing to the tenderness, required to be done with great gentleness. He was surprised to find that Mr. Solly's report was totally at variance with the facts of the case as they came under his (Dr. Bell's) observation in the course of his attendance on the patient, during which he saw him once or twice a day. Peritonitis appeared on the 10th of the month, and on the 11th he was surprised, on making his afternoon visit, to find Mr. Solly sitting in consultation with the father-in-law of the patient: he was not aware that he had been sent for. Immediately on his entering the room, Mr. Solly told him he had resolved to operate on the patient, which he (Dr. Bell) decidedly opposed. He certainly felt aggrieved by the statement that had the operation been performed the patient would still have been alive; for Dr. Ferguson, after carefully examining the patient, fully corroborated his (Dr. Bell's) view of the case, and said distinctly that the operation was not justifiable, and never could become so during the lifetime of the patient. The same opinion was given by Mr. Fergusson, who considered the great risk was that the patient would die on the table. During the whole course of the case the bowels were frequently moved by enemata. He (Dr. Bell) left to Dr. Wardell the description of the post-mortem examination, which fully bore out the correctness of his opinion. With regard to the diagram on the wall, it was the most fanciful production he had ever seen: it resembled nothing human.

Dr. Copland had been consulted in two or three cases of obstruction of the intestines as to the advisability of performing an operation for their relief. In every case he recommended the introduction of a long flexible tube as high up as possible into the passage. This had been successful, although the operation for artificial anus had been about to be commenced. The patients lived some time afterwards. He inquired whether in the four cases related by Mr. Solly this plan had been resorted to previous to the operation.

Dr. Wardell said that on May 7 Dr. Bell desired his

opinion on the fourth case related in the paper read by Mr. Solly, and that he gave it as being one of a malignant tumour pressing upon some part of the large bowel. The history and symptoms all warranted this conclusion. The patient's friend, Dr. Branson (consulting Physician to the Sheffield Infirmary), consulted with them on the 9th, when he fully and entirely agreed with them. On that day a large injection was given, which thoroughly cleared out the colon, but did not remove the tumour in the left hypogastrium, which was round, hard, and the size of a criket-ball. Acute peritonitis set in. On the 11th, Mr. Solly was telegraphed for. On his arrival, to Dr. Wardell's astonishment, he wished to perform the very serious operation for artificial anus, which he (Dr. Wardell) stoutly opposed, because the colon was unquestionably well-nigh empty; because he regarded the case as one of acute peritonitis, caused, it is true, by contraction, but not occlusion of the passage; because it was almost certainly cancer; because fæcal matter could pass of the size of walnuts; and because he conceived his chance of life greater by Medical than Surgical treatment. Dr. Ferguson, of London, came down on the 27th, when he confirmed the diagnosis, and was utterly against the operation. Mr. Fergusson was also summoned, and on the 29th he deliberately gave it as his opinion also that opening the colon was not warrantable.

Dr. Wardell was now proceeding to read the post-mortem examination published by Dr. Bell, when the President reminded him that time was very short, and as others wished to speak, he must request him to omit reading it, but make a statement.

Dr. Wardell then distinctly affirmed that the description given in the paper just read was most incorrect. Mr. Trustram denied the existence of peritonitis, when there were pints of serum (which ran out on the table), bands of lymph, agglutinated and injected intestines. The colon contained but little fæcal matter. The rupture was not a slit, but punched, round, the result of ulcerative absorption. The calibre of the bowel was much encroached upon by annular nodules of colloid cancer, but not occluded. Fæcal matter continued to be passed of the size of walnuts. He maintained that it was not a case for operation, and Dr. Ferguson and Mr. Fergusson still endorse this opinion. With regard to the drawing on the wall, he most emphatically declared that no sketch was ever taken of the morbid parts; that it was a thing of fancy, or exaggeration, and most unlike the diseased appearances which the autopsy revealed.

Mr. Trustram had been called in to this case after a course of fruitless medication had been employed. He had no doubt there was some mechanical obstruction, and had doubts whether an operation might be successful, because he believed, as did the patient, there might be an obstruction higher up, in addition to the one which was present in the rectum. This opinion was fortified by the very great distension which existed about the umbilicus. He (Mr. Trustram) was anxious that the reputation of the operation should not be perilled by its performance in a case which in some respects presented such an unfavourable aspect. With respect to the post-mortem examination, he could positively state that there were no signs of recent inflammation, though there were marks of an old attack of peritonitis. The quantity of fluid was very small, and there was a little fæculent matter in the colon. The drawing on the wall was a rough, but not inaccurate representation of the affected part. He had attempted to pass a bougie in this case, but had not persevered in the effort for fear of mischief. No tube had been inserted for the same reason. Mr. Solly had advised the operation, and he (Mr. Trustram) now believed that if it had been performed when first suggested the patient might have been alive, and have been present to hear his own case read! (A laugh.) He (Mr. Trustram) knew that there was a cancerous mass in the rectum, as cancer-cells had been found on a bougie which had been introduced. Cases of this kind he believed would be more or less successful as they were performed at an early or late period. He had seen cases lost by delay.

Mr. Curling wished to make some observations on Mr. Solly's paper, but had no desire to enter upon the personal matters which had been introduced into the discussion. And yet he ought not, perhaps, to shrink from offering some opinion on the propriety of an operation in the fourth case. So far as he could arrive at a conclusion from the account which had been given, he thought that had the lumbar colon been opened at the time of Mr. Solly's first or second visit life might have been prolonged, but that on the last occasion it was too late for operative interference. He reminded Dr. Copland that these were not doubtful cases of obstruction, but ascertained cancerous strictures; and a long tube, unless used with great care, was very liable to penetrate the peritoneal cavity. He had seen one instance in which this had occurred. The *Transactions* of the Society were rich in cases of lumbar colotomy, and Mr. Cæsar Hawkins had collected and analysed a large number of cases. Since then the operation had been performed in a great many instances. He had himself done it five times, and assisted in three other cases; and he viewed it as one of the established operations of Surgery. But what he had heard on that occasion led him to think, with Mr. Solly, that Amussat's operation was not sufficiently appreciated by the Profession, and that its difficulties and dangers were much exaggerated. He took exception to the remark of Mr. Solly, that the operation was called for in properly selected cases—meaning cases only of intestinal obstruction. Surgery had, he considered, advanced beyond this, and there were other conditions in which the colon might be opened in the loin with great relief to the patient. He dwelt on the miseries of cancerous disease in the rectum, the incontinency, scalding evacuations, and the passage of fæces through the vagina and by the bladder and urethra. These miseries might be removed by the formation of an artificial anus in the loin. The operation could be performed even when the colon was not distended: in three of the cases in which he had operated the colon was contracted. An anus in the loin was not so inconvenient as was commonly supposed. A case was related in the Society's "Transactions" in which this operation had been performed in South America, by Pennell, in 1849. The stricture in the rectum was not malignant, and the patient recovered, and some years afterwards came over to this country, when he (Mr. Curling) had an opportunity of seeing him, and could bear testimony to the slight inconvenience occasioned by the aperture. The operation had already been adopted in some few cases for the relief, chiefly, of the distressing symptoms of cancer. He had himself done it in one instance with benefit, and regarded the operation as a step in advance and as a boon to the suffering patient.

Dr. Wynn Williams, in justice to provincial Surgery, wished to state that the first two operations for artificial anus in this country were performed by Mr. Clement, of Shrewsbury. In one instance the patient survived the proceeding for three years. Eight-seven plum-stones were found in one of the cases; these would not have been removed by the introduction of a tube.

Mr. Solly, in reply, said that he had no personal feeling in the matter, which he had treated simply on its scientific merits. He had not in either of the cases detailed introduced a tube, as recommended by Dr. Copland; in all cases of cancerous disease such a proceeding was attended with danger. He had certainly examined the last case with a bougie, but he did not attempt to pass it through the obstruction in consequence of the peril which it involved. Dr. Wardell had stated that the patient had been in bad health for some time; but he (Mr. Solly), having had an intimate knowledge of him for thirty years, could positively state that until within a few days of his death he was well and robust.

Discharge of a Portion of the Ileum per Anum.—Dr. Bare relates the case of a woman who, jumping from a fence, felt something give way in the abdomen, causing severe pain. When he saw her four hours afterwards, the pain, seated below and to the right of the umbilicus, had become excruciating, the skin being cold and clammy, the pulse thready and 122, and the thirst incessant. Believing this to be an example of intussusception of the ileum, Dr. Bare studiously avoided all means calculated to increase peristaltic action, gave large doses of opium and morphia, with an occasional blue pill. Demulcents, with laudanum, were also injected. On the third day the bowels were evacuated by means of a more stimulating injection, and the abdomen being distended, a large blister was applied. On the fifth day, air passed through the intestines. On the seventh day, castor-oil and laudanum were given; and from the eighth to the tenth days, excessive diarrhœa prevailed, requiring acetate of lead and opium. The patient's strength was kept up by injections of chicken-broth; and on the thirteenth day a portion of intestine, about thirteen inches long, was discharged. From this time the patient gradually recovered, and six months after only suffered from indigestible food as it passed the stricture.—*American Quarterly Journal*, October, p. 561.

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OBITUARY.

THE LATE DR. CARLYON, OF TRURO.

Truro has lost the most beloved, the most venerated, of her sons. No one at all familiar with the place and its history could doubt that these terms can apply only to Dr. Carlyon. We have long regarded with something of the tenderness that attaches to the memory of the dead this now departed representative of a generation of whom scarce another is left; and we owe it to ourselves as well as to him whose departure from among us we lament, to devote a few lines to the history of one so conspicuous for public and private virtues, and so dear to our whole community.

Dr. Clement Carlyon, a scion of an ancient Cornish stock, was the youngest son of the Rev. John Carlyon, of Truro, and of Miss Mary Winstanley, of Braunston Hall, Leicestershire, and was born on the 22nd of April, 1777. His father had been a Fellow of Pembroke Hall, Cambridge, and had gained high honours there. He was offered valuable preferment in a distant county, which he declined, although non-residence was allowed, because he did not consider himself strong enough for the full performance of its duties; and he passed a happy and useful life in Truro, whilst bringing up most excellently a large family of sons and daughters.

Clement Carlyon, like his brothers, was educated at the Truro Grammar School, then most successfully conducted by the Rev. Dr. Cardew, where he had for companions, among many others afterwards distinguished, the illustrious philosopher and chemist, Sir Humphry Davy; Henry Martyn, the missionary; and Prebendary Kempthorne, the well-known Chaplain of the Bishop of Gloucester. Each of the two last attained the pre-eminent position of Senior Wrangler, at Cambridge, and all these maintained in after life their friendly intercourse with their schoolfellow, Carlyon. He proceeded, like these great men, at once from Truro School to College, and he went out as Tenth Wrangler in 1798. In the same year he was chosen a travelling bachelor, an appointment to which the annual stipend of £100 was then attached, with the condition that three years should be devoted to foreign travel, and that an account of what had been noticed should be periodically given in Latin letters to the University. During these journeyings, which embraced the whole of Central Europe, and extended to the northern parts of Sweden, he had for his principal companion the late Dr. Parry, son of the famous physician of Bath, and brother of Sir Edward, the Arctic navigator; and their excursions were frequently shared by the poet and philosopher, Samuel Taylor Coleridge. Of him, and of other remarkable men with whom he was more or less associated abroad at that critical period of the world's history, the close of the last century and the beginning of the present, he has recorded many interesting personal traits in the volumes of his "Early Years and Late Reflections," a work of his elder leisure, which includes his reminiscences of Sir Walter Scott, Mr. Abernethy, and other celebrities of that day, with whom he was brought in contact during his medical studies in Edinburgh and London. Dr. Carlyon was elected to one of the valuable Fellowships of Pembroke Hall, soon after he took his B.A. degree, and he held it till his marriage, in 1806, to his cousin, Eliza, a daughter of Mr. Carlyon, of Tregrehan. Before this conclusion of bachelor life, he had proceeded from the degree of M.A., to that of M.D., and settled as a Physician at Truro, where he speedily acquired the confidence of a large circle of society, including many of the principal families of Cornwall—a confidence which was rendered permanent by the remarkable combination exhibited in his character of the highest qualities of the friend and the gentleman with those of the Medical adviser. He was in truth a model Physician of the old school, a shrewd and quick observer of symptoms, full of ready resource for their treatment—clear and prompt in judgment—delicate in tact—and, above all, large and warm in heart—so that all his powers moved in active concert for the service of his patient. In 1827 he published a pamphlet on the "Endemic Typhus Fever of Cornwall," in which the principles of sanitary science, of late familiarised to the public mind through so many channels, but then quite novel, are enforced with the greatest clearness of detail and weight of argument. Before this time Dr. Carlyon had become one of the Physicians to the Cornwall Infirmary, a field of usefulness to the poor in which he delighted; and his services there were but justly estimated by the governors when on his retirement in 1849 they presented him with a very valuable and suitably inscribed salver. In connection with this Hospital, and by every available channel, he urged forward with exemplary zeal, from its first introduction, the practice of vaccination. He withdrew almost entirely from private practice about the same time when he gave up his public Medical appointment; but his interest in his Profession, in its study as well as appliances, continued always lively; and down to his latest years many a poor sufferer has been indebted to his assiduous skill, bestowed on local as well as general maladies, for recovery or relief.

Dr. Carlyon now employed his greater leisure in the diligent promotion of the useful and charitable institutions of his town and county, for both of which he was a magistrate. To the Lunatic Asylum, at Bodmin, he devoted particular attention. In the working of the Truro Savings Bank, in whose establishment he took a leading place, he was always greatly interested, and little more than a month before his death he presided with unimpaired vigour over the latest important meeting of its managers. In the municipal affairs of Truro he had always taken a very active part, and five times he filled the civic chair; a fact recorded on his marble bust, the excellent work of Burnard, placed in the Council Chamber, in 1849, after the completion of those handsome halls, over the erection of which he presided during three successive mayoralties. The town owes mainly to his efforts the memorial column and fine statue of the traveller Lander; and the poor are entirely indebted to him for the cottages connected with the Truro Friendly Society, which he founded.

Those literary pursuits which "Rome's least mortal mind" has called the delight of old age, also engaged much of Dr. Carlyon's later years. He held a facile and graceful pen, and his writings reflect the same qualities of mind and character which we have described as belonging to him in social life. We have mentioned his "Early Years and Late Reflections," perhaps his most interesting and valuable work, certainly that which best exhibits his individuality, as it is there the records of his life, as well as of his thoughts, are to be found. His "Precepts of Health" is a pleasant and forcible exposition of his experience, in confirmation of the maxims of old Louis Cornaro, well supported, assuredly, by the hale and cheery aspect of the author.

Dr. Carlyon was a truly religious man. In his early days his faith had stood firm among the sceptics and scoffers of the school of Voltaire, and it was the mainspring of his life throughout, maintaining its action so habitually as to be part and parcel of his common every-day nature, and to mix itself, even at the last, without any appearance of effort, with his consciousness that his end drew near—a cheerful, steady light of simple Christian confidence, which doubtless did much to render what it was his

> "Death-like sleep,
> A gentle wafting to immortal life."

Under this paramount influence, he devoted almost all his more recent publications to religious topics. He was strongly attached to the Church of England, but thought he saw, in certain of her formularies, occasions of stumbling to the weak; and he wished the Surgical knife to be applied to these, as he considered them, morbid excrescences. His "Scripture Notices and Proofs" was his earliest, and is his most considerable effort in this direction; several shorter essays followed it, and the latest of these, bearing the appropriate title of "A Last Attempt," has only just come out of the printer's hands. In this connection we cannot but allude to the full flow of Christian sympathy with which he welcomed the efforts of all true-hearted labourers in the Gospel field, though beyond his own particular pale; to the services of Wesley and his followers, past and present, he especially rejoiced to pay his cordial tribute.

Dr. Carlyon was a rather strong politician in his prime of life—a good old Tory—and he fought well as a partisan. He made, however, but few enemies—in fact, he was a good friend, but he was not a good hater—and he lived to be almost a reformer. He was fond of the country—of nature altogether—of his farm, of his dog and gun, but especially of his fishing-rod. The last year of his life witnessed successes of this veteran Waltonian. He was a whole man, body as well as mind. He did not concur with some respectable people who regard sports and amusements as unbecoming the gravity of mature age and learned professions, or as puerile interruptions to the pursuit of gain.

To such a man, whose chief desire is to be useful and to be loved, a town of moderate size has some advantages over

those populous cities in which the larger prizes of ambition are to be won, but where it is not possible for any individual to see a friend in almost every one he meets, bound to him by some kindness or courtesy received. Such was Dr. Carlyon's position in Truro, and as a fatherly friend will he be missed—as the embodiment, too, of what was most worthy our respect in the past age and our love in the present.

Dr. Carlyon must be considered to have had a happy life in all that best constitutes happiness. Of his outer world we have said something; his domestic relations we believe to have been in every way blest. What he was to the world outside he was in more than double measure by his own hearthstone; and we know that his love has been well returned. The wife whom he married in 1806 was parted from him little more than two years ago, and of their numerous family not one has been taken from them. They lived to see their children happily settled, and their descendants to the fourth generation. We may be allowed further to express the satisfaction which all around us feel in common with ourselves that it was permitted to him whom we mourn to enjoy, as a bright gleam in his evening sky, the recognition of the merits of his son-in-law, Dr. Harold Browne, in his elevation to the Bishopric of Ely, with the hearty approval of the whole Church—we may say, the whole nation.

Dr. Carlyon has died at the ripest age, within a few weeks of eighty-seven, but without decay of faculties or anything like decrepitude. His benignant smile had not lost its glow, nor had his cordial "manly voice been turned again towards childish treble." Alas, that we must know them no more! He will, before these feeble sentences are printed, have been followed to the grave by the benedictions and gratitude of the poor, and the unmixed esteem and love of every class:

"He was a man, take him for all in all,
We shall not look upon his like again."

—From the *West Briton and Cornwall Advertiser*, March 11.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a General Meeting of the Fellows held on Monday, April 18, Augustus Ward Clement, 78, Upper Berkeley-street, formerly an Extra-Licentiate of the College, was duly admitted a Member. At the same meeting, the following gentlemen, having undergone the necessary Examination, and satisfied the College of their proficiency in the Science and Practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College:—

Henri Victor Bertin, 26, Alpha-road, Regent's-park; Jean Baptiste Blanchet, M.D. McGill College, Montreal, Quebec, Canada; John Legge Currie, 42A, Charterhouse-square; Henry John Hunt, 16, Portugal-street, Lincoln's-inn-fields; Charles Perks, Lichfield; George Edward Pyle, Middlesex Hospital; Alexander Waugh, Corsley, Warminster; Connell Whipple, Plymouth; William Samuel Wilson, 34, Hereford-road North, Bayswater; Sedley Wolverstan, Plymouth; Edward Miles Coverdale Hooker, Hadlow, Tunbridge; and Andrew Nash, Jamieson, Victoria, Australia.

The following gentlemen were reported by the Examiners to have passed the First Part of the Professional Examination for the Licence:—

Allen Fennings, Charing-cross Hospital; William Iliffe, St. Bartholomew's Hospital; Frederick William Humphreys, Guy's Hospital; Josiah Court, Guy's Hospital; Richard S. P. Griffiths, St. Mary's Hospital; Hamilton de Tatham, St. Mary's Hospital; Franklin Gould, King's College; Gifford Ransford, St. George's Hospital; George Arthur Kenyon, St. George's Hospital; Walter Lattey, St. George's Hospital; Howard Barrett, St. George's Hospital; William S. Wilson, Westminster Hospital; and John George Frederick Wilford, Guy's Hospital.

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their First Professional Examinations during the April sittings of the examiners:—

P. O'Neill, Castledermot; David Young, Perth; James Vince Worthington, Lancaster; Frank Godfrey, Salisbury; Thomas Wardleworth, Lancaster; Edward M'Craith, County Cork; William Young Veitch, Coundon; Aubrey Wicks, Cambridge; Henry Cornish, Taunton; William Chisholme, Edinburgh; William E. Steel, Blaenarvon; John Mickle, Douglas; David J. Walsh, County Cork; George L. Carrick, Constradt; William Duguid, Elgin; A. H. Allshorn, Enfield; Patrick Kynock, Roxburgh; William J. Elmslie, Aberdeen.

And the following gentlemen passed their Final Examinations, and were admitted L.R.C.P. Edinburgh, and L.R.C.S. Edinburgh:—

Francis Codman Ropes, London; William Lawton Eames, County Cork; David Topham, County Cavan; John Crerar, Perthshire; James Jamieson, Bowden; James M'Caul, Edinburgh; Alexander Laing, Aberdeen; William Dunbar Cosgrove, Aberdeen; William Stuart, Ayrshire.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a Meeting of the Court of Examiners on the 14th inst., and, when eligible, will be admitted to the Pass Examination:—

Edwin Atherstone, J. F. Plomley, J. W. Smith, John King, E. F. J. Cole, F. J. Greening, F. S. Mainsty, R. F. Nell, Frederick Marshall, and Fenwick Metcalfe, Students of King's College; J. E. Eaton, David Sharp, A. C. B. Melhado, R. A. Rix, R. G. Roper, and W. J. Wane, of St. Bartholomew's Hospital; C. V. Helsdon, V. E. Noel, and J. F. Cadle, of the Middlesex Hospital; John Raby, F. H. Ward, and H. H. Birtwell, of St. Thomas's Hospital; W. J. Burt and F. K. Hampshire, of St. George's Hospital; R. P. Goodworth and Rees Llewellyn, of the London Hospital; Campbell Fair and Daniel Costelloe, of Dublin; Henry Sainsbury and William Thomas, of Birmingham; G. P. Bate, of the Westminster Hospital; and S. J. Hulme, of Manchester.

The following passed their examination on the 19th inst, viz.:

Messrs. Francis Bateman, G. F. Maberly, J. T. Jacques, Henry Rundle, J. O. Adams, Lyttleton Hallett, A. Mc J. Tindall, J. W. Hembraugh, and L. H. Reid, Students of St. Bartholomew's Hospital; Clarence Visick, C. F. C. Foxon, G. S. Watson, C. E. Hocken, William Bruorton, and F. M. B. Sims, of St. George's Hospital; Augustus Müller, S. J. Knott, Thomas Leah, N. T. J. Haydon, and W. Le G. Densiloe, of St. Mary's Hospital; R. S. Smith, Charles Kelly, Geoffrey Hett, and A. F. Hill, of King's College; F. E. Manby, W. M. Knipe, J. S. T. Perkins, and James Haslam, of Guy's Hospital; G. O. Spencer, A. H. Martin, and W. A. Stuart, of University College; H. M. Body, and R. Y. V. Packman, of Charing-cross Hospital; C. G. Firmin, Middlesex Hospital; and Samuel Oldham, of Manchester.

On the 20th inst.:—

Herbert Lucas, H. G. Budd, Clement Palmer, Henry Whiting, G. J. B. Stevens, Joseph Riley, H. C. Smith, and William Hawett, Students of Guy's Hospital; G. F. Pritchard, A. A. Corte, J. H. Wright, E. C. Evans, and J. F. Hussey, of King's College; Richard Pughe, Thomas Flower, R. M. Williams, and W. G. Jones, of the Middlesex Hospital; J. A. White, W. F. P. Davies, W. A. Renshaw, and J. H. Worsley, of Manchester; O. T. Gronow, J. H. Webb, and H. de Tatham, of St. Mary's Hospital; C. A. Brigstocke, Joseph Goodall, and Robert Robinson, of St. Bartholomew's Hospital; H. C. Wigg and R. D. Logg, of University College; George Ackroyd and T. E. G. Bywater, Leeds; W. G. Sutcliffe, Charing-cross Hospital; and James Hickinbotham, of Birmingham.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their First Professional Examinations during the April sittings of the examiners:—

Cuthbert H. Robinson, Yorkshire; John D. Lytle, Maghera; John Adolphe Moniot, Penang; Horatio D. S. Compigne, Gosport, Hants; Peter M'Arthur, New York; James Smith, Dumfries; George A. Christie, New Brunswick.

The following gentlemen passed their Final Examinations, and obtained the Diploma of the College:—

Alexander Gordon Miller, Edinburgh; James Hunter, Ayrshire; Wm. Bruce, Edinburgh; Samuel M'Crea, County Down; Andrew David Ducat, London; Eugene Valentine MacSwiney, County Cork; George Bridges Mouat, Stirling; John Miller, Edinburgh; Andrew Barrie, Glasgow; William Henry Semple, Stranraer; Samuel Wordsworth Poole, Edinburgh; John Burke Gaffney, County Roscommon.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, April 14, 1864:—

William George Vawdrey Lush, Wilton, near Salisbury; George Lamb, Hull; James Thomas McMahon, Rochester-terrace, Camden-town; Andrew Rowan, Station-terrace, Hull; Thomas Claye Shaw, Stockport.

The following gentleman, also on the same day, passed his First Examination:—

Thomas Franklin Lloyd, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ALLINGHAM, Mr. JAMES, has been elected Assistant-Surgeon to St. Mark's Hospital.

CARTER, THOMAS A., M.D. Edin., has been appointed Physician to the Leamington Hospital.

COOPER, ALFRED, M.R.C.S. Eng., has been elected Assistant-Surgeon to St. Mark's Hospital.

ELLERTON, J., M.D., has been appointed House-Surgeon to the North Riding Infirmary, Middlesborough-on-Tees.

HARRISON, REGINALD, M.R.C.S. Eng., has been appointed Demonstrator of Anatomy at the Liverpool Royal Infirmary School of Medicine.

IRVINE, GEORGE R., M.D. St. And., has been appointed Assistant Medical Officer to the Rainhill Lunatic Asylum, near Liverpool.

MALLAM, H. P., M.R.C.S. Eng., has been elected Medical Officer for the Workhouse and Industrial School, Oxford.

PHILIPPS, ALFRED, M.R.C.S. Eng., has been appointed House-Surgeon to the Manchester Workhouse.

ROBERTS, ROBERT, M.R.C.S. Eng., has been elected Surgeon to the Festiniog Hospital.

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ROCHE, R., L.A.H. Dub., has been appointed Apothecary to the Workhouse of the Listowel Union, Co. Kerry.

WILLETT, C. V., M.R.C.S. Eng., has been appointed House-Surgeon to the Great Northern Hospital.

WILLIAMS, WILLIAM, M.R.C.S. Eng., has been elected Surgeon to the Festiniog Hospital.

YOUNG, ADAM, L.R.C.P. Edin., has been appointed to the Commission of the Peace for the Borough of Boston, Lincolnshire.

DEATHS.

BLACK, THOMAS HENRY, M.R.C.S. Eng., at Marcus-square, Newry, Co. Down, on March 30.

BOULTON, JAMES, L.S.A., at Stone, Staffordshire, on April 1, aged 56.

DIXON, F. B., M.D., at Hackney, N.E., on April 4, aged 50.

DUCAT, CHARLES, M.D., late of H.E.I.C. Service, at Hastings, on April 18.

HERBERT, JOHN, L.F.P.S. Glasg., at Airdrie, Lanarkshire, on March 29.

MCCOMBE, THOMAS SHERIFF, L.F.P.S. Glasg., at Antrim, Co. Antrim, on April 12, aged 38.

MINTER, MICHAEL, M.D., at Mount Moriac, Geelong, Australia, on January 31, aged 57, formerly of Folkestone, Kent.

PARKS, JOHN, M.R.C.S. Eng., at the Wylde, Bury, Lancashire, on April 10, aged 57.

PERFECT, THOMAS W. CHAMBERLAINE, M.R.C.S. Eng., at Hammersmith, near London, on April 13, aged 88.

PORTER, GEORGE M., L.S.A., at Caistor, Lincolnshire, recently.

SMITH, JAMES C., Assistant-Surgeon 1st Battalion 19th Foot, at Ferozepore, India, on February 13, aged 31.

TURNBULL, W., Surgeon, Madras Service, at Aldroughty, on April 8.

THE REPRESENTATION OF FINSBURY.—There promises to be a sharp contest for this borough on the resignation of Sir Morton Peto. Besides those gentlemen's names which have already appeared, and whose claims are put forward for the seat about to be vacated, that of Dr. Lankester is mentioned; and we hear of a meeting having been held at which that gentleman's merits were discussed, and many promises of support were given.

PROFESSOR PARTRIDGE AND GARIBALDI. — The following letter appeared in the *Times* of April 18 :—

"*To the Editor of the Times.*

"Sir,—I saw General Garibaldi, by appointment, at Stafford House yesterday morning, and I am able to state, for the comfort and reassurance of the numerous friends who are interested in his welfare, that his visit to this country is quite unconnected with any seeking or necessity for Medical or Surgical opinion or treatment; this statement is due also to the able Italian Surgeons to whose unremitting care and skill (aided by his own excellent constitution and abstemious, active habits) the General is indebted for his successful cure.

"The fact is that General Garibaldi's health, which had been somewhat impaired by the long confinement of his wound so as to render a change of air and scene desirable, is now quite restored, and he looks and declares himself to be in excellent condition.

"The limp, and use of a stick in walking, are owing to a remaining stiffness of the ankle-joint, and of the sheaths of the surrounding tendons; but as the articulation retains some degree of movement, and the foot is in a good position—at right angles with the leg—it is not improbable that with time, care, and moderate exercise, the joint will become, so to speak, more supple, and that eventually, though a certain degree of lameness must always exist, a useful and active limb will be obtained. With regard to the present condition of the leg and foot, there is no swelling nor inflammation of either, the wound has quite healed, is free from discharge, and though the scar is a little tender, and requires the protection of a slip of plaster, there is no present sign of abscess, nor of the existence of more particles of dead bone to come away. The foot, indeed, is turned a little inwards, but it has been so ever since the injury; and this is owing to the loss of support to the foot derived from the inner ankle, the bone of which was broken by the shot, and was afterwards cast off, or exfoliated.

"The General is able to bear the whole weight of his body upon the injured limb, which is quite free from pain, except after over-exertion in standing or walking.

"I am, Sir, your obedient servant,

"RICHARD PARTRIDGE.

"17, New-street, Spring-gardens, S.W., April 15.

"P.S. — Those of my Professional brethren who feel an interest in the Medical and Surgical history of the General's case will find it fully detailed in the pamphlets of Drs. Ripari and Basile, published at Milan and Palermo respectively, and copies of which I have presented to the libraries of the College of Surgeons and of the Medical and Chirurgical Society."

GARIBALDI'S DEPARTURE.—We reprint the communications from Mr. Fergusson to the Duke of Sutherland and Mr. Seely, which decided the friends of the gallant soldier to permit him to shorten his visit :—

(Private.) (Copy.)

"16, George-street, Hanover-square, April 17.

"My Lord Duke,—I see by the papers a gradually-extending list of places which General Garibaldi has promised to visit during his brief stay in this country, and have reason to know that the list is rapidly increasing.

"As the General has done me the honour of consulting me regarding his health, I take the liberty of stating to you, as one of his warmest English friends, that I should greatly dread the effect of so much continued excitement as these intended visits imply. I doubt if the strongest could endure as much, and if you have any influence with the General (as doubtless you must have) I implore you to do your best to set aside much of this intended fatigue, as already I have noticed occasional indications of fatigue; and, considering the usual habits of my illustrious patient, I must say that I should dread the effects upon both his constitution and his limbs, for the sound one must suffer in the efforts to save the wounded, and were he to suffer in health in the way referred to, it would be a cause of deep grief to your Grace and to his admirers and friends, not only in England, but throughout the world.

"I have marked this note 'private,' but should your Grace feel impressed with what I have stated, you may show it to the General and to others interested.

"I have the honour to remain,

"Your Grace's most obedient servant,

"WM. FERGUSSON.

"To his Grace the Duke of Sutherland."

"16, George-street, Hanover-square, April 18.

"My Lord Duke,—With reference to my communication of yesterday, I beg to state that I have had an interview with General Garibaldi this morning, and have spoken with him directly on the subject. He admits that he is fatigued, and he certainly does not appear so fresh as when he arrived from the Isle of Wight.

"On several occasions he has spoken of the excitement and bustle around as being so different from all about him in the ordinary tenour of his life, and this morning he referred particularly to mental exhaustion from excitement more than to physical weakness.

"I certainly cannot take it upon me, as a professional man, to say that he is unfit to undertake any of his engagements in this country; but I have no hesitation in stating my firm conviction that by much work of the kind he would incur great and serious risk. Such, I believe, is the General's own opinion on the subject, and, if doubts remain, it might be advisable to call a consultation of several eminent professional men in London.

"I have the honour to remain,

"Your Grace's obedient servant,

"WM. FERGUSSON.

"His Grace the Duke of Sutherland."

"16, George-street, Hanover-square, April 16.

"My dear Mr. Seely,—I see by the papers that the General is engaging himself in all directions. The fatigue would be enormous. No Professional man could answer for it, unless, indeed, it were to say that it would kill the strongest. I have written to this effect to the Duke of Sutherland, and, as General Garibaldi is in a manner your guest more than of any other man, and as you have displayed to me so kindly an interest in his health, I wish to say that I think it incumbent on you and his other friends in England to suggest some such course as shall turn him from the fatigues these various provincial visits imply.

"Believe me, yours very sincerely,

"Chas. Seely, Esq., M.P." "WM. FERGUSSON.

A MISAPPROPRIATION OF PUBLIC FUNDS.—The prosecution in the Court-Martial upon Surgeon-General Hammond has recently closed without establishing one of the charges set forth in the indictment against him. It is to be regretted that a quarter of a million of the public money should have been thus expended in a vain attempt to blast the reputation of an officer whose administration of one of the most important Government Bureaux has challenged the admiration of the Medical Profession of this and foreign countries.—*American Medical Times*, March 26.

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THE JACKSONIAN PRIZE.—The Council of the Royal College of Surgeons has just awarded the above prize to Dr. Morell Mackenzie, of George-street, Hanover-square, a member of the College, for his essay on the "Pathology and Treatment of Diseases of the Larynx." It is stated that there were no competitors for the other Jacksonian prize on the "Normal and Pathological Anatomy of the various Synovial Bursæ connected with the Muscles and Tendons of the Upper Extremity." There are three Jacksonian prizes to be awarded this year for the best essays on the following subjects—viz., "Club Foot: its Causes, Pathology, and Treatment;" "The Diseases of the Ankle-Joint, and of the Joints and Bones of the Tarsus, requiring Surgical Treatment; and stating the Treatment, including Operative, most suitable in each Case, with the Results thereof;" and "The Malformation, Diseases, and Injuries of the Fingers and Toes, with their Surgical Treatment. The Dissertation to be Illustrated by Preparations and Drawings." The Collegiate Triennial Prize subjects must be sent in before Christmas-day next. The following is the subject for competition:—"The Structural Anatomy and Physiology of the Lymphatic Vessels and Glands (the Anatomical Distribution not being required); the Communications (if any) between the Lymphatics and the Blood-vessels to be Demonstrated; and the Influence (if any) which the Lymphatic Vessels or Glands Exercise on the Fluid they Transmit, to be Elucidated. The Dissertation to be Illustrated by Preparations and Drawings."

A NEW FEVER NEST.—We have noticed the death of five of the ten resident Physicians of Bellevue Hospital who contracted the fever, and now have to record the fact that three more are prostrated by this disease. The Medical Board of that Hospital have taken the alarm, and urged the Commissioners to erect a Fever Hospital upon one of the islands under their charge. The Commissioners have moved in the matter, but, with characteristic disregard of their Medical advisers, have erected a barrack in one of the least ventilated and most public corners of the grounds at Bellevue.—*American Medical Times*, April 2.

ACCIDENTAL POISONING.—On Monday, April 18, the Liverpool borough coroner sat for the purpose of accepting bail for Mr. Richard Poole (assistant to Messrs. Clay and Abraham, pharmaceutical chemists), against whom a jury, on Saturday, returned a verdict of manslaughter. He had caused the death of Mr. John Lingard, a Liverpool tradesman, by making up a prescription with strychnine instead of James's powder. The coroner exhibited a number of bottles (Thouger's patent) which had been forwarded to him that morning, the object of the patent bottle being to prevent accidental poisoning. The bottle, or rather its label, the coroner said, had been approved by Dr. Lankester, in whose opinion he concurred. The ordinary dispensing label is surrounded by sandpaper, and a portion of the bottle covered by the same material, which, being felt by the dispenser or patient in handling the bottle, at once shows that it contains some dangerous preparation. At the inquest on Saturday, Mr. Bird, a Liverpool chemist, exhibited his safety poison bottles and corks to the jury and to the Medical witnesses who had given evidence in the case. Mr. Bird's contrivance would seem to be still more effective than that of Mr. Thouger. It consists of a stopper or cork, having sharp, angular points, which cannot be removed without inflicting considerable pain upon the hand, unless the dispenser puts down both the dispensing glass and the medicine bottle. By this contrivance, any one using the bottle would be so distinctly reminded that it contained poison, that a mistake could not occur even in the dark.

CONVICTION OF AN ILLEGAL PRACTITIONER.—On Saturday, April 12, at the Worship-street Police-court, Mr. Edward Tucker Jenkins, of 159, Lever-street, St. Luke's, was charged at the instance of Mr. James Ireland, a Medical man, with having unlawfully pretended to be a Physician, Doctor of Medicine, and Surgeon. Mr. Sleigh, the barrister, instructed by Mr. T. W. Rogers, jun., of 70, Fenchurch-street, conducted the prosecution, and Mr. Nind, from Mr. Abbott's offices, appeared for the defence. Mr. Sleigh said he appeared there to conduct a prosecution against the defendant, who was charged in the summons issued against him with having on certain days and times held himself out and professed to be a Physician, Doctor of Medicine, and Surgeon, thereby implying and leading the public to believe that he was legally and properly registered as such. He should be able to prove by evidence that this defendant had for some years carried on the business of a Doctor of Medicine and Surgeon both in the New North-road and also in Lever-street, St. Luke's; that he had issued cards with that designation, calling himself "Dr. Jenkins, Surgeon and Accoucheur, 150, Lever-street, late John's-row, and at 11, Great Prescot-street; advice gratis from 9 to 11;" and that at his private residence he intimated he was at home from ten o'clock till ten o'clock, so that he must be there all night, while he also had a brass plate on his door calling himself a Surgeon and Accoucheur. He was thus ostensibly carrying on the Profession of a Surgeon, Doctor of Medicine, and Accoucheur, while he was not on the Medical Register at all, and had no title whatever to any such designation. He should now prove all that he had stated, and would call upon the magistrate for the infliction of the full penalty of £20. Mr. Nind said that, notwithstanding the serious results alleged to have been likely to follow his client's practice, no proof of a single case of such consequences had been adduced. He should be able to prove, from documents he held in his hand, that the defendant was a man of ability, and worthy the confidence which had been placed in him. It was true that he was not licensed or registered; but his father, who had been in the profession for years, was so. The defendant had been assistant also to his father, who had just died. In addition to all this he had letters from Messrs. Partridge, Ferguson, Tanner, and Lyons, of King's College Hospital, speaking of his diligence, readiness, and intelligence while assistant-dispenser there, showing he had the good opinion of all the Medical officers, and numerous other testimonials, expressing a conviction of his perfect competency as a Medical man. He attributed the prosecution to jealousy on the part of the Medical Profession. But he could not defend his client's conduct. However, the defendant intended shortly to pass an examination at Apothecaries' Hall, and he hoped that before twelve months expired he would legally be upon the register. Mr. Sleigh warmly protested against such an unjustifiable imputation upon the Medical Profession as that just made of jealousy of the alleged success of the defendant. Immediately on hearing the announcement of the defendant's father's death he was about to rise and withdraw his pressure for the extreme penalty, and even now he wished to do so, in consideration of such a domestic misfortune. He and his clients would therefore be satisfied with any penalty the Bench might think would meet the case, and, so far from there being any feeling beyond vindicating the honour and the respectability of the Profession, they would not ask for any costs, not even those of the summons. Mr. Nind expressed his client's appreciation of this friendly act, and Mr. Leigh sentenced the defendant to a penalty of £5.

THE annual meeting of the Manchester and Salford Sanitary Association was held in the Town Hall, King-street, on April 6. The Bishop, who occupied the chair, paid an eloquent tribute to the memory of the late Alderman Neild. He said that the Manchester and Salford Sanitary Association exercised the most salutary influence in different branches of the community. He had read the report and the valuable papers of Dr. Angus Smith, Mr. Ransome, Mr. Royston, and Dr. Morgan with instruction, and with that instruction, said the Bishop, for which I confess I am always most grateful, for I felt I was not only made a wiser man by the information they gave, but a better man by the tone with which that information was communicated. Dr. Morgan read the report for 1863, which concluded by urging the establishment of an institution for the training of nurses for Manchester and the surrounding neighbourhood. It is intended that a certain proportion of these nurses shall, after suitable instruction in their duties, discharge the office of district visitors among the poor, imparting to them useful information on such subjects as the training and management of children and the preparation and cooking of food. Mr. Malcolm Ross said that every one who looked at the reports of the association must be struck with the self-denying labours of so many Medical men in the furtherance of the cause of sanitary improvement. It was a most gratifying thing that those who might be supposed to live by a contrary course should give so much of their time and services to the prevention of disease, which, to a certain extent, was the staff of their own existence. Mr. Thomas Turner said that a great desideratum towards the prevention of zymotic diseases, small-pox, measles, and scarlet fever was the means of separating infected from uninfected persons. It might surprise some to hear that, in the visitation of the sick suffering from small-pox, families had been found who obstinately persisted in refusing to allow their children to be removed from home, and who, indeed, kept the fact of the illness as quiet as possible, to prevent any interference. A

letter had been published suggesting the propriety of establishing a reception-house for children under 10 years of age, but he said that they must go higher than that if they wanted an institution likely to do good and to prevent the spread of contagious diseases. The Bishop, in conclusion, said it was his lot at a very early period of life to be associated with some of the most eminent of the Medical Profession. I remember, said he, the majestic form of Henry Cline; I remember Abernethy and those of that school, many of whom took kind notice of me in my boyhood days. I cannot say from that time to this that I have known any Profession whose self-denial, whose noble liberality, whose willingness and anxiety to sacrifice almost anything for the benefit of their fellow-creatures, has surpassed the members of that Profession. (Applause.)

THE BATTLE FOR LIFE BETWEEN THE NEW AND OLD WORLDS.—The first number of a new Journal, called the *Scientific Record*, contains some curious facts as to the naturalisation of European plants and animals in the New World. It would appear that, as in the case of the human inhabitants, there is a law that the new-comers should eventually take the place of the native denizens of the soil. "W. T. Locke Travers, Esq., F.L.S., an active New Zealand botanist, thus writes from Canterbury:—'You would be surprised at the rapid spread of European and other foreign plants in this country. All along the sides of the main line of road through the plains a *Poligonum aviculare* called "Cow Grass" grows most luxuriantly, the roots sometimes two feet in depth, and the plants sometimes spreading over an area from four to five feet in diameter. The dock *Rumex obtusifolius*, or *R. crispus*, is to be found in every river bed extending into the valleys of the mountain rivers, until these become mere torrents. The water-cress increases in our rivers to such an extent as to threaten to choke them altogether. In some of the mountain districts, where the soil is loose, the white clover, *Trifolium repens*, is completely displacing the native grasses, forming a close sward. In fact, the young vegetation appears to shrink from competition with these more vigorous intruders.' Dr. Hooker says that he has in vain urged on his colonial correspondents the importance of systematically recording and collecting facts on this important subject. Every problem of the geographical diffusion of plants is directly interfered with by these intruders. Mr. Darwin is the only author who has had the boldness to approach the subject. 'This great naturalist,' says Dr. H., 'believes that the facts hitherto observed favour the supposition that, in the struggle for life between the denizens of the Old continents and the New, the former ones are pre-potent; and he attributes this to the longer period during which they have been engaged in strife and the consequent vigour acquired. European weeds have established themselves abundantly in N. America, Australia, and New Zealand, but comparatively few plants of these countries have become naturalised, and ultimately complete weeds in England. We may hence infer why it is that the indigenous plants of St. Helena and Madeira show no tendency to increase, whilst European and African trees, shrubs, and herbs are rapidly covering those islands.' The rapid propagation of European animals is no less remarkable than that of plants. J. Haart, Esq., Government geologist, Canterbury, writes as follows to Mr. Darwin:—'The native (Maori) saying is, "as the white man's rat has driven away the native rat, so the European fly drives away our own; and as the clover kills our fern, so will the Maories disappear before the white man himself." It is wonderful to observe the botanical and zoological changes which have taken place since Captain Cook first set foot in New Zealand. Some pigs, which he and other navigators left with the natives, have increased and run wild in such a way that it is impossible to destroy them. There are large tracts of country where they reign supreme. The soil looks as if ploughed by their burrowing. Some station-holders of 100,000 acres have had to make contracts for killing them at 6d. per tail, and as many as 22,000 on a single run have been killed by adventurous parties without any diminution in their number being discernible. Not only are they obnoxious by occupying the ground which the sheep farmer needs for his flock, but they assiduously follow the ewes when lambing, and devour the poor lambs as soon as they make their appearance. Another interesting fact is the appearance of the Norwegian rat. It has thoroughly extirpated the native rat, and is to be found everywhere growing to a very large size. The European mouse follows closely, and what is more surprising, where it makes its appearance, it drives to a great degree, the Norwegian rat away. Amongst other quadrupeds, cattle, dogs, and cats are found in a wild state, but not abundantly. The European house-fly is another importation. When it arrives it repels the blue-bottle of New Zealand, which seems to shun its company. But the spread of the European insect goes on slowly, so that settlers, knowing its utility, have carried it in boxes and bottles to their new inland stations.' 'It must be long,' says Dr. Hooker, 'before facts enough to theorise upon can be collected. Meanwhile, the inquiry appears to be, perhaps, the most interesting and important in all biology, and as such, it is most earnestly desired that all who are favourably circumstanced to pursue it, will do so both systematically and carefully.'"

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Poor-law Medical Reform Association.—Mr. Griffin, Weymouth, requests us to inform the Poor-law Medical Officers that in *Knight's Official Advertiser* of the 15th inst. it is stated:—

"The Select Committee (Poor Relief, England) continued to meet on Tuesdays and Fridays until the Easter recess, and have now resumed their sittings. The members alone are present when the Committee are considering their report, and the resolutions agreed to will not be made known until they are formally reported to the House. In all probability the Report will be issued early next month."

Since April 1, Mr. Griffin has received the following subscriptions in aid of the funds of the Association:—

Jay, F. F., Depwade, 5s.; Davies, F., Pershore, 10s.; Whiteman, R. H., Wandsworth, 5s.; Banks, P. H., Bedford, 5s.; Thomas, J. L., Carmarthen, 2s 6d.; Stainthorpe, T., M.D., Hexham, 5s.; Terry, H., jun., Hardingstone, 5s.; Percival, W., Hardingstone, 5s.; Spicer, N. W., Chard, £1 1s.; Moreton, S. E., Great Boughton, 10s.; Clarke, J., Barnstaple, 5s.

Varieties of Salt.—Some persons abhor the taste of salt; others empty a saltcellar at dinner, and take some with everything they eat—sweets, pastry, fruit, and even coffee. Great salt-eaters have their favourite kinds of salt, of which they are as fond as some persons are of a special vintage of wine. Most people are contented with the ordinary table salt, the cheapness and excellency of which is a thing to be thankful for; but the fastidious *halophilist* will give sixpence a pound for Maldon salt, crystallised in their square, dry flakes, which crunch pleasantly in the mouth, whilst others prefer Lymington salt, with its little deliquescent cubes, and strong briny taste. The difference in flavour between this and the common table salt is remarkable; and any one who has to prescribe for a bad appetite may gain his patient's goodwill by recommending him so homely a luxury. Celery salt, flavoured with the powdered seeds of that plant, is much relished by some people. For pickling purposes, the stronger deliquescent salts known as Bay salt St. Ube's, etc., are preferred. For bathing purposes also, these salts, which contain other marine elements besides the mere chloride of sodium, and which consequently attract moisture from the air, and have a fuller bitter, and even acrid taste, give to the water in which they are dissolved a more crisp feeling and refreshing smell. A variety of salt is now largely advertised and sold for bathing purposes by the Messrs. Tidman, which we have had tried in our own nursery, and believe that it makes a very agreeable and tonic bath.

Dinner of the Licentiates in Dental Surgery.—Mr. Harrison may be assured that any misrepresentation of his views was quite unintentional. We have not space to publish his letter *in extenso*, but give the following extract, which doubtless fairly represents the views of a highly educated man and F.R.C.S.:—

"Let Licentiates in Dental Surgery be called and registered what they are, and what they are content to be, and it would be found neither probable that they would attempt any practice which was beyond the proper pale of their department of the Profession, nor possible that they should succeed if they did attempt it—as, independently of the legal difficulty which would in such case be in their way, it is simply impossible for any man who attempts to practise both General Surgery and Dentistry to succeed to any extent in either. I take it upon myself to assert this thus confidently because I am thoroughly conversant with the requirements of both these departments of practice, having enjoyed in the course of my Professional career large practices in both; and, I may add, that if proof were wanted to confirm this assertion, it is to be found in the fact that, among those Dentists who possess the full qualifications of Member or Fellow, there is not one who attempts to combine the general practice of Surgery with his speciality."

The Hôtel Dieu and St. Thomas's Hospital.—Saint-Thomas Hospital est aussi parvenu définitivement à se placer. C'est le cas d'appliquer la deviso: Mieux vaut tard que jamais. Après le choix successif de Surry Gardens, de Bethleem, de Newington Church et de bien d'autres sites, celui de Stangate sur les rives de la Tamise, vient d'être approuvé par la Chancellerie. Parmi les considérants du jugement, dont le bon marché de 2,375,000 fr. pour le terrain seulement est l'un des principaux, la salubrité du lieu est invoquée en se basant sur celle de l'Hôtel-Dieu de Paris. Voilà, certes, un honneur que cet établissement ne devait guère attendre; l'Hôtel-Dieu pris pour modèle! Et puis, il y a Seine et Tamise, et celle-ci ne peut guère être comparée à celle-là au point de vue de la salubrité.—*L'Union Médicale*, April 7, p. 39.

The Pigmy Fossil Elephant of Malta.—More remains of this animal have been discovered by Dr. Leith Adams, F.G.S., in extensive excavations lately made by that gentleman among the cavern deposits and breccias near Crendi. One of the chief points with reference to the fossil elephant found in Malta is the small size of its teeth, which, coupled with other characteristics, leaves no doubt that it was not only distinct from any living or extinct species, but was, as regards dimensions, a pigmy compared with them. It is supposed not to have been larger than a lion. Such relics, together with the bones and teeth of hippopotami, etc., which of late years have been met with in great abundance in different parts of Malta and Gozo, tend to show that these islands are but fragments of what may at one time have been an extensive continent, in all probability connected with either Europe or Africa, or both. At all events, the physical geography of this portion of the Mediterranean must have changed very much since the above-mentioned animals wandered over our islands. To those who take an interest in the wonderful discoveries made by geologists of late years, it is worthy of notice that teeth and bones of the living elephant of Africa, and another larger fossil species, together with the hippopotamus, have been lately discovered by Baron Anca in the Palermo caves; thus showing that in all probability no less than three descriptions of elephants and two species of hippopotami frequented an area embraced within the southern point of Sicily and Malta, and during the post-pliocene period, when we find the earliest traces of man's existence. None of the latter have yet been met with in Malta. But there is every probability that flint impliments and such like will turn up, as they have done in the Sicilian caves, more especially now that the attention of scientific inquirers has been earnestly directed to this important subject. Without the invaluable testimony afforded by the remains of the quadrupeds above mentioned, there are downcast fragments of the strata and faults along the shores of Malta, which testify to the submergence of the land. Besides, the subaqueous plateau, named Adventure Bank, uniting Sicily to Africa by a succession of ridges not more than forty to fifty fathoms under water, points to the former contiguity of that island and the continent of Africa. So marked is the latter that Sir C. Lyell has asserted that Sicily might be re-united to Africa by movements of upheaval not greater than those which are already known to have taken place within the human period in Sardinia, where the bed of the sea has been elevated 300 feet since man inhabited that island.—*Malta Times.*

Historical Notice of Raphides as Natural Characters.—In the current number of the *Ann. Nat. Hist.* is a thoughtful paper on this subject, by Mr. Gulliver, from which the following extract will show what a novel and fruitful field of research lies open for cultivation before the eyes of our country readers. In the natural sciences, the study of difference or contrast is more difficult and scarcely less important than the study of resemblance or analogy; and the complaint of Lord Bacon of the comparative neglect of difference in anatomy is still as pertinent as in the time of the great Chancellor. Since the discoveries of Schleiden and Schwann, important advances have been made in both directions, including the valuable characters afforded by the bone-cells and intimate structure of the teeth of animals, as expounded by Quekett, Nasmyth, and Tomes; and Mr. Gulliver had long ago shown (App. to Gerber's Anat., 1842) that there are animals which may not only be distinguished by their red corpuscles alone from other species of the same order, but from every other order of the vertebrate subkingdom; nay, that the most universal single diagnostic between the two chief subdivisions of that subkingdom is in the blood; that is to say, while a nucleus regularly exists in the red corpuscle of oviparous Vertebrates, that nucleus is as regularly wanting in the red corpuscle of Mammalia; and hence the terms Vertebrata Pyrenæmata, and Vertebrata Apyrenæmata, as more particularly explained in the reports of the author's College lectures (*Medical Times and Gazette*, 1862-3, and Hunterian Oration, 1863). Excepting the diagnosis of a few orders by the woody tubes and pollen, we find little use made in systematic botany of the distinctions afforded by the intimate structure of vascular plants. Hence the orders, genera, and species seemed to require further research, especially as regards the characters which might appear in modifications of size, form, structure, and functions of the cells, and in the properties of the juices. The latex (*Medical Times and Gazette*, February 14, 1863, fig. 11) and cells of the hairs, pollen, etc., were sometimes found available in this way. But these observations had not gone far before examples occurred of the truth of Schleiden's remarks as to how little hope there is, without a study of the fundamental principles of development, of much further aid to systematic botany from mere anatomy. After a while, however, Mr. Gulliver proved that anatomy would occasionally extend our good diagnoses between allied vascular plants, as he exemplified in Juncaceæ and Hymenophylleæ. It was not before a large accumulation of his notes had been examined that Raphides were thought of in this point of view, for they had not even been particularly looked after, and were merely noted whenever seen, long before their significance as characters was suspected. But when every one of those notes of Raphides had been picked out, it was very unexpectedly discovered that the plants in which they occurred would sometimes come under certain orderly arrangements. Thus, not a single species belonging to the orders Balsaminaceæ, Onagraceæ, and Galiaceæ was without its note of Raphides, while in no single instance were they noted in the next allied orders; and conversely, a single order (as Hydrocharidaceæ), in which Raphides were regularly wanting, would be surrounded by orders in which Raphides were as constantly abounding. Then, repeated experiments and observations proved that raphis-bearing is an essential and intrinsic, plain and characteristic phenomenon through t the life of certain species, pervading its healthy frame from the seed-leaves and young buds to the ovule and ripe fruit. Accordingly, the conviction arose that such observations, among the infinite details of Nature, might add to our knowledge of the affinities and contrasts of plants, and of their true position in her system. Among the most remarkable of the results is the fact that whenever Raphides afford a diagnostic, it is so much more fundamental and universal than any other single character yet in use that mere fragments of two plants, at any period of their growth, may be sufficient to show the difference.

Obstetric Guide Hook.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you allow me, for the sake of your readers who have corresponded with me in respect of your report of the proceedings of the Obstetric Society, to say, that the "Guide Hook," on the use of which I communicated through the kindness of Dr. Grailly Hewitt a paper to the Society, is made by, and may be procured of, Messrs. Weiss and Son.

I earnestly commend the instrument to the notice of every accoucheur, and shall be greatly favoured by the experience of any who may make use of it.

I am, &c.

Bury St. Edmunds. SAMUEL NEWHAM.

Mr. Gladstone's Government Annuities Bill.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I have heard through reliable sources that inquiries have been made of Parochial Medical officers as to what fee they would accept to examine assurers for the Government annuities, supposing that Mr. Gladstone's bill should become law. Now, I think if the parochial Medical officers are to be the examiners, to the exclusion of the generality of Medical men, it is high time that men of influence in the Profession should look into the matter, and offer some opposition to such a manifest injustice. If Government is to become a gigantic assurance company, let them act with the same liberality as the other companies, leaving the assurers the option of being examined by their usual Medical attendant.

I am, &c. FORTITER IN RE.

Inhalation of Gas Fumes in Whooping-cough.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your last issue of the *Medical Times and Gazette* you notice that "several children suffering from whooping-cough at Calais have been taken to the gas works of that town, and caused to inhale the fumes which are disengaged during the purification of the gas by lime." This you head a "New Cure for Pertussis." It may be new to you and the people of Calais, but it is not so to the inhabitants of the town in which I reside. The lower classes especially, when they find that their own, or the doctor's treatment, or Dame Nature does not produce a cure, frequently take their children to the gas works. This proceeding here, as in Calais, has a good repute.

I am, &c.

Bury, Lancashire, April 8. THOS. B. BOTT.

Tumour (Node?) at the Back of the Pharynx treated by Iodide of Potassium.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—A similar case having been reported from King's College Hospital, perhaps you will consider the enclosed worth publishing.

I am, &c.

JAS. FERRIER CLARKE, L.R.C.S.I., L.C.P.I.

Farnworth, near Bolton, April 11.

Mrs. S, aged 52, consulted me at the beginning of July last for an indolent ulcer on her leg, and at the same time complained of difficulty of swallowing. On looking into the mouth the back of the pharynx appeared bulging forwards, the uvula resting against it. This tumour was hard, but not painful to the touch. She acknowledged to having had venereal some twenty years ago, for which she was salivated, and two years ago had "lumps" (nodes?) on her tibia. I ordered her three grains of iodide of potassium (increased gradually to six grains) three times a day, and painted the tumour with tinct. iodinii. This treatment was continued till the end of September, when the tumour had almost entirely disappeared.

Turning by External Manipulation.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I was called at six o'clock on the morning of February 23, 1864, to attend Mrs. —— in her fourth confinement. She had been ill from the previous evening, but did not think it necessary to send for me any sooner as the pains were not very strong. On examination, I found the os uteri well dilated, and the membranes protruding freely, but there was no presentation within my reach. I had no doubt from the internal as well as from the external examination that it was a cross birth. The pelvis was very roomy, and the previous confinements were speedy. In consequence of a late illness of a formidable character, the lady was in a very unfavourable condition for bearing the operation of turning, and as there was nothing urgent, I waited for nearly three hours. At the end of that time there was not the slightest change in the case, and I requested the assistance of another Practitioner. On consultation, it was agreed to wait half an hour longer to allow of greater relaxation of the os externum, and also in the hope that nature might rectify the position of the infant, as the labour had come on six weeks before the expiration of the ninth month. In the meantime, however, Dr. Hicks' observations on turning by external manipulation came to my recollection, and I determined to try to put them in practice. I found the child lying fair across with the head in the right side and the breech in the left. It was very easily moved across the pelvis, as no part of it had entered the brim. I thought it better to make a breech case of it, and therefore I carried up the head with the one hand and pushed down the breech with the other. This was done in the interval of the pains, and whilst the uterus and abdominal parieties were relaxed. The infant floated round so nicely in the waters that I brought it into a straight line with the inlet of the pelvis with the greatest possible ease. I held it steadily in that position till a pain came on, and the breech at once descended into the pelvis. Although the lady knew nothing of the nature of her case or of my operation, she at once exclaimed that the child had turned in the womb. The birth was completed in a few minutes, and the patient made a most excellent recovery. When I first read Dr. Hicks' remarks on this plan of turning, they made

so little impression upon me that they escaped from my memory. I thought the operation could not be performed without dangerous violence, and did not intend to try it, and therefore dismissed it from my thoughts. When I came to put it in practice, however, I found it so easy of accomplishment that I was surprised beyond measure. No injury could possibly result from such trifling manipulation; and in this instance I have little doubt, from the unfavourable condition of the lady, that it was the means of saving the life of my patient. I am, &c.

Coleraine, Ireland, April. JAMES C. L. CARSON, M.D.

THE ARMY MEDICAL DEPARTMENT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you permit an old subscriber to state what he believes to be the real grievances of the officers of the Medical Department in the Army?

1st. Faith is not kept with them. Warrants, regulations, or circulars are never faithfully carried out, excepting when they prove to be prejudicial to the interests of the officers.

2nd. That the same measure is not meted out to the officers of this Department as to those of others, nor to all the officers of this Department alike.

3rd. That appeals coming from Medical officers are never met in proper spirit, or fairly and impartially decided.

4th. That either the bias of the present Director-General is against the Department, or that his authority is, like that of the rest of his brethren, not recognised. The latter is my opinion.

5th. That the military *status* of Medical officers, staff or regimental, is never freely and frankly accorded. This prejudice obtains in the War Office, Horse-Guards, and every branch of the service, and the infection has spread into civil life.

6th. That even in their own Hospitals their authority is much too limited. All the servants belonging to the Hospital should be under the direction (mind, not military command) of the Medical officers.

7th. That the few prizes in the Department are monopolised by a party, while the labour falls on their less-favoured brethren.

8th. That it is very difficult to get leave of absence, and the difficulty is increasing.

9th. That the pay of the Surgeons on promotion is too small, and their service before retirement too long.

10th. That promotion "for merit," so-called, is prejudicial to the Department, disheartening to the majority, and productive of no benefit to the service. I am, &c.

April 12. AN OLD SUBSCRIBER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The Horse-Guards circular of the 9th ult., which expresses the opinion of the Secretary of State as to the impropriety of imposing fines on Medical officers who have passed recruits, may be accepted as a proof that the grievances of Medical officers are not altogether groundless, and that the dearth of candidates is beginning to compel attention to the state of the Army Medical Department.

Since the discussion of this subject in your columns, another step has been taken in the right direction, forage allowance being now granted as an appanage of rank, in accordance with the terms and intention of the Royal Warrant, and not given or withheld according to the nature of the duty which the Medical officer may happen to be performing.

Although the duties of Medical officers are in every respect more onerous and responsible than those of commissariat officers, the latter are better paid, and their promotion to the higher grades is more speedy and certain, while retirement at the age of 55 is not compulsory, but prudently left to the discretion of the Commissary-General.

The pay of Assistant-Surgeons should, as recommended by a correspondent in your issue of the 19th ult., be increased after fifteen years' service; promotion would be quickened by affording a retirement at twenty years; the scale of half-pay after twenty-five years' service should be augmented to 21s. per diem, and the retirement of Medical officers at 55 years of age should not be compulsory, unless inefficiency has been certified by a Medical board.

Were these alterations brought into immediate operation, their value and significance would appear at the next examination of candidates.

I am, &c.

April 15. H. P.

MERCURY IN SYPHILIS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—When a member of our Profession advocates his opinions in a spirit of candour and fair play, with the sole object of eliciting truth, for his enthusiasm we commend him; but when the opinion of others is treated with irony and sarcasm, and his own supported by an exaggeration of what is in favour of, and a *suppressio veri*, as to what is against it, he lays himself open to the just rebuke of candid men. Under which of these categories has Dr. Drysdale placed himself?

In support of his unmitigated denunciations against the use of mercury in syphilis he has brought forward a host of authorities, whose practice is diametrically opposed to their being quoted in any such way.

Mr. Syme gives mercury in syphilis and other diseases, and salivates in iritis. See his "Principles of Surgery."

Fricke's simple treatment (so-called) in the Hamburgh Hospital was, in 1827, the following:—Saline baths, 14; zinc, 38; emit. tartar., 103; corrosive sublimate, 302; nitric acid, 314; soap, 330. That is to say, mercury was deemed necessary, and employed in about one-third of the cases.

The brothers Desruelles collected 25,000 cases in Rennes and Val de Grace, and after this enormous experience, and being advocates of the simple treatment, came to these conclusions:—

After all treatments there are relapses, consisting in diseases of the anus, skin, mouth, throat, nasal fossæ and osseous system, though more severe after the mercurial.

The mercurial treatment does not determine all the diseases attributed to it by the exclusive partizans of the simple treatment.

In certain circumstances the mercurial medicines are of use to assure the success of the cure, etc.

Mr. Prescott Hewett (*Lancet*, Feb. 20, 1864,) says, "By far the greater number of cases of these diseases (caries and necrosis of the bones of the skull) are connected with scrofula, and much more commonly still with syphilis and the careless administration of mercury. In the two cases just admitted, the disease of the bones owes its origin to the syphilitic poison."

The Swedish Council of Health have shown that diseases of the osseous system do occur, though less frequently, after the simple treatment; and they add, "there are cases where mercury is useful, but then we ought to administer it in small doses, and make patients take a soothing diet."

Mr. Rose found that one out of every three of the sores treated without mercury was followed by secondaries.

Thus, Sir, it appears from Dr. Drysdale's own authorities, that the sequlæ of chancre are similar in kind and equal in proportion under any and every treatment, but milder in those cases in which mercury is not abused. But what enlightened member of the Profession, I ask, uses mercury in this way now?

I hope with Dr. Drysdale that this important subject will be thoroughly ventilated, and I doubt not that the following remark of the late John Pearson, treated by Dr. Drysdale in his work on "Syphilis," with undeserved irony, will prove pertinent as ever:—"When mercury is under the direction of an unskilful man, it will fail of effecting a cure more frequently than it will succeed. The complaint will be generally exasperated by it, and rendered more intractable than if no mercury had been given." I am, &c.

Maida-hill, April, 1864. R. S. SISSON, M.D.

COMMUNICATIONS have been received from—

Mr. THOMAS F. MAY; Mr. SAMUEL NEWHAM; ROYAL COLLEGE OF PHYSICIANS; ETHNOLOGICAL SOCIETY OF LONDON; Dr. JOHN COGHLAN; FORTITER IN RE: Dr. JOHN TAGGART; AN OLD SUBSCRIBER; Mr. R. GRIFFIN; Mr. F. A. BULLEY; APOTHECARIES' HALL; Dr. STARK.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 16, 1864.

BIRTHS.

Births of Boys, 1039; Girls, 933; Total, 1972.
Average of 10 corresponding weeks, 1854-63, 1845·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	777	746	1523
Average of the ten years 1854-63	634·7	605·5	1240·2
Average corrected to increased population..	..	..	1364
Deaths of people above 90	..	..	7

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	..	3	7	2	12	5	..
North ..	618,210	8	8	9	2	8	14	2
Central ..	378,058	3	13	1	5	12	6	..
East ..	571,158	..	15	12	3	12	16	3
South ..	773,175	8	16	15	1	16	18	6
Total ..	2,803,989	19	55	44	13	60	59	11

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·800 in.
Mean temperature	48·9
Highest point of thermometer	68·5
Lowest point of thermometer	33·4
Mean dew-point temperature	41·4
General direction of wind	Variable.
Whole amount of rain in the week	0·06 in.

APPOINTMENTS FOR THE WEEK.

April 23. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Frankland, "On the Metallic Elements."

25. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Clinical Discussion.

26. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. John Campbell, Esq. (Islay), and Sir Justin Shiel, K.C.B., "On the Celtic Languages and Races." John Lubbock, Esq., F.R.S., "On the Danish Coast-fiords."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Dr. Morell Mackenzie, "On the First Laryngoscope as Invented by Dr. Benjamin Babington in 1829." Mr. Thomas Bryant, "On Stone in the Bladder of a Female—Urethral Dilatation."

ROYAL INSTITUTION, 3 p.m. Professor Blackie, "On Homer."

27. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m., Middlesex, 1 p.m.; London, 2 p.m.

28. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m., Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Professor Blackie, "On Homer."

29. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 8 p.m. Professor Williamson, "On the Existence of Atoms."

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ORIGINAL LECTURES.

LECTURES ON THE CONSERVATION OF ENERGY.

By Professor HELMHOLTZ.

DELIVERED AT
The Royal Institution
ON APRIL 14, 1864.

Lecture IV.

Ladies and Gentlemen,—I can give only a very short summary of the influence which heat produces on the inorganic processes on the surface of our globe. We have seen that the sun contains a great store of heat, and that it produces always new quantities of heat. The other bodies of our system, the planets and their satellites, have been fluid masses—melted masses: so, at least, we may suppose, with a great degree of probability. The principal proof of this supposition is the spherical and slightly flattened form which all the planets and their satellites exhibit, and which our own globe also shows; for this form is exactly that which fluid masses, under the attraction of their own gravitation, and under the influence of rotation round their axis, always assume. We find this form in all the bodies of our system; and from this we may infer that they were formerly in a fluid state, and we know no other mode by which they could become fluid than by heat. As for our own earth, we have evidence of the interior heat independently of its form; for we have but to make a deep hole into the earth, to go down into mines, or to sink a thermometer into a hole bored for discovering the minerals of superficial strata, and we find that the temperature increases with increasing depth. This increase of temperature has been found all over the surface of the earth, wherever borings have been made through the soil, or mines have been sunk. We find also the rate of increase very similar in different parts of the earth. It varies between 60 and 110 feet for 1 degree of the centigrade scale, the average being 1 degree to 95 feet. Now our mines, some of them, go down to the depth of 2000 feet. The well at Grenelle has been bored to the extent of 1800 feet, and the fountain at Rehme, in Westphalia, is 2100 feet. To this depth we find always the same increase of temperature. It is quite constant. We find a still greater increase of temperature in the hot springs of water coming from a greater depth. All the hot sources of water which are spread over the surface of the earth are most probably heated only by going through these warmer and deeper layers of the soil. The deeper the outlet for such a source, the higher is the temperature. The temperature of these springs of water goes up to boiling-point, and some of them even higher. They cannot, of course, keep that higher temperature at the surface of the earth; but we find it at a greater depth. My colleague, M. Bunsen, has shown that this is the case with the geysers in Iceland. The water of those fountains is heated to a higher temperature than boiling-point. As soon as the water comes to the level of the earth, and is not hindered by great pressure, it is changed into vapour, and gives those great explosions of vapour by which the column of water is sent up to a great height. A still higher degree of temperature we find in the ejections of the volcanoes, whose masses of minerals are sometimes thrown out glowing and melted, and having a temperature of 1500 or 2000 degrees. They have been melted in the interior of the earth, and we know no other cause for their heat than the interior heat of the earth. Now, we do not need to suppose that there is any source of new heat in the interior of the earth,—that new heat is produced there. It is very probable that we have there only the remnants of an original store of heat; for so large a body as the earth, if its surface is consolidated, will cool but very slowly. We see this slow cooling even in smaller masses—masses of lava thrown out by volcanoes. It has been observed in some of the currents of lava at Etna, in Sicily, that their interior was glowing and red hot seven years after they were thrown out, and at a time when the surface was completely cooled and covered with cryptogamic plants; and one of the great currents of lava thrown out in the year 1787 gave out hot vapours of water fifty years after it had left the interior of the mountain. Therefore, even these relatively small masses of minerals, which compose these currents of lava, are cooled very slowly; and we may infer that the cooling of so large a body as the earth, composed of similar substances, must be very slow. The rate of cooling can be calculated, not with great accuracy, but with a sufficient degree of accuracy for our purpose. Observations have been recently made on the temperature of the interior of the rocks near Edinburgh; and Professor William Thomson has calculated the conducting power of these rocks for heat, and how much time would be required for the surface of the earth to arrive at its present temperature, on the supposition that the whole earth consisted at first of a melted mass of these same rocks. Of course, the different minerals of the earth show a great variety of chemical composition and of conducting power, so that this calculation can give no great degree of accuracy; but it is sufficient to show what a great number of years would be required to cool the earth to its present state of temperature on the surface. According to the calculations of Professor Thomson, if we suppose that the surface of the earth was consolidated when it arrived at a temperature of 2000 degrees centigrade, then, from that time, 24,000,000 years would be required for cooling it down to the present state. You see, then, that no new heat is necessary to be produced in the interior of the earth. The old store of heat comes out so slowly through the superficial layers, that it has been kept for many millions of years; and many millions of years will elapse before a sensible diminution of the heat of the interior of the earth can take place. At present the quantity of heat which leaves the surface of the earth, and which is taken from this original store of heat, is very small. As long as there is a difference of temperature between the superficial strata and the deeper strata of the earth, heat must go out, and must be conducted from the interior to the surface, and leave the surface by radiation; but this quantity is exceedingly small. According to the calculations of Fourrier, which agree very well with the later calculations of Professor William Thomson, the quantity of heat which comes from the interior of our earth to the surface is sufficient only to melt during one year one inch of ice, supposing a stratum of ice to be spread over the whole surface of the earth; and the mean temperature on the surface of the earth is increased by the heat which leaves the interior by only the seventeenth part of a degree centigrade; so that this interior heat of the earth, as regards the common phenomena of our weather and climate and temperature, is quite unimportant.

Now if you will look to a great mass like the earth, and suppose that it has been formerly melted and then cooled, it is clearly not possible that a mass of brittle and rigid material like the rocks which compose the surface of our earth, would cool down quietly without altering its shape and dimensions. Every mass which is cooled contracts. When a melted mass passes into a solid state, it can either contract, like the greater part of the minerals of our earth, or it can expand like water. You know that when water is enclosed in a bottle, if it is cooled and becomes ice, the bottle is broken by the expansion of the ice; but the greater number of melted bodies which are solidified by cooling do not expand, they contract. Now suppose that the earth has been a melted glowing ball, which has been cooled on its surface, then the surface of the earth ought to come to its present temperature very soon, because the conducting of the heat from the interior must be very slow as soon as the surface is solidified. We may therefore suppose that in the first thousand or ten thousand years after its solidification, the surface of the earth was very nearly of the same temperature as at the present time, but the interior would be cooled down by very slow degrees, and in cooling it would contract more and more. There would, then, be a solid covering, and an interior mass (it might be fluid or solid) which contracted; and the spherical shell would be too large for the interior mass, in proportion as the latter was condensed and contracted, and therefore the exterior covering could not remain a complete spherical shell without distortions and changes of level. We see this going on in every melted mass. If a great mass of metal is cast into a mould, or wax, fat, and other bodies which can be melted, and which we use to fill moulds to get casts, all these bodies either contract or expand when solidified, and afterwards, in cooling, they contract. The mass which flows at first into the mould is not quite sufficient to fill it exactly if it is cooled. Therefore, in every such case peculiar arrangements must be made, that new parts of the fluid mass may enter the mould. Various contrivances are used for this purpose, according to the materials which are employed in the casting. If no new material can enter into the mould, you will get no accurate cast from the

mould, but the cast will have holes, depressions, and so on. We may suppose that the same thing must have happened when the earth cooled; and we find, indeed, by the researches into the geological structure of the surface of the earth, that a long series of changes of level has taken place since the time when the first layers of the surface were solidified—that the surface of the earth has been broken many times, that new masses have come out from the interior; that some parts have been raised and others depressed, not only once, but many times; and so a very complicated structure of the surface of the earth has been produced, and this complication is so great that it is often extremely difficult to separate the different levels and elevations of the different geological ages. The same processes are going on at the present time, for we find regular changes of level in many parts of the earth. Thus, Mr. Darwin has proved that the American chain of the Andes along the coast of South America is rising from the water, not quietly, but at intervals of five, ten, and twenty years earthquakes occur, during which a constant elevation takes place of the coast line to the extent of four, five, six, and eight feet. You find the coast lines along the mountains rising to a height of nearly a thousand feet. Then we know that there is a constant elevation at present going on in Scandinavia, by which the Baltic shore is raised every century four or five feet, and the shore of Norway, which looks to the German sea and to the Atlantic, is raised still more, and it can be shown that the interior chain of mountains rises more than the coast lines. England is rising at its western shore and sinking at its eastern shore, very slightly indeed, in the same way as the western shore of France is rising from the water. I quote these few examples only, but the number of such observations is very great. We see, then, at present changes of level going on, either quietly, so that they can be discovered only by very accurate observations, or sometimes with great disturbances, producing earthquakes; and I think we may with great probability suppose that these changes of level, which are quite of the same kind as the changes of level in past geological epochs, have the same cause, and are produced by the slow cooling of the interior of the earth, by which it contracts more and more, and becomes less adapted in its form to its solid covering. At present, therefore, the temperature of the surface of the earth and the air depends only on the quantity of heat coming from the sun, and the loss of heat by radiation from the surface of the earth—radiation into infinite space. The rays of the sun are distributed in very unequal degrees over the various parts of the earth; they fall nearly perpendicularly to the tropical zone, to the parts near the equator; they touch the surface only near the poles. The equatorial regions are, therefore, heated very much, and the polar regions do not receive much heat; but they lose as much during the night, by radiation into the sky, as the equatorial regions.

Now, by this inequality of temperature a great number of motions are produced. First, there are the motions of the air: you all know that heated air is lighter than cooled air; you see this by daily experience in your chimneys. The air heated by burning the coals rises through the chimney because it is expanded, and is lighter than the colder air, which sinks down as the other rises. We can show this still more clearly by a simple experiment. We will fill a little paper balloon with heated air produced by a spirit flame, and as soon as it is filled you will find that the difference of weight between the expanded interior air and the cooler exterior air in the room will be sufficient to take the balloon up to a considerable height. (Experiment.)

You know that the air is heated along the equatorial regions of the earth and is cool nearer the poles, where it is in contact with the cooler surface of the earth and the ice which abounds in those regions. Therefore the air of the equator will strive to go to the upper regions of the atmosphere, while the air of the poles will sink to a lower point. In this way a motion is produced. The hot air strives to expand in the higher parts of the atmosphere, and is distributed over the surface of the earth, flowing from the equator to the poles, while the colder air from the poles goes to the equator, filling those places which are left by heated air. We have thus on the surface of the earth the same process going on which you observe every day in your chimneys. The equator is like the chimney of the earth where we have the greater heat. The cool air flows from the poles to the equator, and the hot air goes along the upper portion of the atmosphere from the equator to the poles. Now this motion of the air is changed by the rotation of the earth itself. If the earth were at rest, we should only have one current of air going along the meridian line to the equator, and another going back in the same direction at a greater height to the poles; but the air which goes from the poles to the equator goes from parts where the velocity of the rotation of the earth is not very great, to other parts where the velocity of rotation is greater. The velocity at the equator in the daily movement of the earth round its own axis is about 1500 feet in a second; but the same motion at the Shetland Islands is only one half—750 feet in a second. At London the velocity is very nearly 1200 feet. Now, the air going from the poles to the Shetland Islands has originally no rotatory motion, and therefore it must appear at the Shetland Islands like a current of air going back; and the more south the air comes, the more it is retarded when compared with the motion of the earth. To show you this, I will make a chalk line along the meridian of this globe from the pole to the equator, at the same time turning the earth just as it moves in its daily course round its axis, and you will see that the result is a curved line. The air goes, then, in this direction. Now, if I draw another line from the equator to the poles, moving the earth in the opposite way, you will see the curved direction which it takes. (Illustration.) The air, then, which comes from the poles to the equator does not come from north to south, but, as you see, from north-east to south-west; therefore, the current of air which goes to the equator appears to us like a north-east wind, while that coming from the equator to the poles appears like a south-west wind. This is the principal system of winds along the surface of the earth. It is not much disturbed in the tropical zone, where it passes under the name of trade winds; but in our region of the earth and in the temperate zone it is disturbed very much by the unequal distribution of land and water, and by the different temperature produced by the currents of the ocean, by mountain chains, and so on. We are living in the regions of the earth where the warm equatorial streams come from the upper regions to the lower; and on the whole surface of Europe we have an unstable equilibrium between the colder and warmer wind. The colder currents are winds coming from the north-east, and you know that they are cold indeed. The warmer currents come from the south-west, also from the west and north-west, because the warmer air that comes down does not quite lose the greater velocity which it acquires at the equator when it leaves the surface of the earth. In the higher regions of the atmosphere the friction is not so great, and the air can retain its original velocity better than on the surface of the earth; therefore these higher currents coming down have commonly this velocity of the equator, and they appear like westerly winds; so that in Europe westerly winds predominate, because not only the equatorial streams, but even some northerly streams, have retained the western direction. Now, this principal system of winds is very much disturbed by local circumstances, so that it is very complicated in our region; but in the equatorial regions the system of trade winds is very regular, and the temperature, the weather, and the fall of rain are more regular than they are here.

The same motions go on in the water, where we have the same difference in temperature. Water is expanded by heat, and comes up to the surface of the ocean, while the colder water goes down. We have, therefore, in the water the same sort of currents, not only currents going from north to south along the bottom of the ocean, and streams going from the equator to the pole, but these are deflected in the same way by the rotation of the earth; so that we have along the equator in the Atlantic a current having the direction of trade winds from East to West; it then cuts against the coast line of South America, is deflected to the Mexican shore, and comes out again at the point of Florida. There it is much condensed by the peculiar forms of the land. It comes out through the narrow straits of the Bahama Islands, and then forms the renowned gulf-stream, which goes along the western shore of North America, and back in the direction of the polar currents from west to east; it is thus directed against the coast of Europe, and principally against the coast of Ireland, so that we have in this part of our own coasts a warm current of sea-water spread out: one part is deflected along the coast of Europe to go down to Africa and return in its former way; the other part goes to the coast of Ireland, Scotland, and Norway, into the polar regions, and returns to Baffin's Bay, where it is completely cooled. You know that the peculiar climate of the British Islands depends upon this warm current of water, which gives a great quantity of humidity. It is this which has given them the peculiar name of the Green Islands, so that for vegetation they are renowned

throughout the whole of Europe. It is not possible to have such meadows and lawns on the Continent of Europe, where we have not the same degree of humidity.

Then we have another circumstance which makes these phenomena more complicated. Water as it is warmed passes off in vapour; and therefore the warm air which rises along the equator from the surface of the ocean and from the wetted surface of the earth is saturated with vapours, and these vapours are deposited and separated from the air in the form of fog, or mist, or rain, or clouds, where the air is cooled, and then water falls down again to the surface of the earth; so a continuous process of distillation goes on through our atmosphere, by which the water is carried to the surface of the land. Now, the coolest parts of the atmosphere are the higher parts, and therefore we have a deposit of water and rain principally where the warm humid air is obliged to rise to the higher parts of the atmosphere by chains of mountains, and this is why chains of mountains are the principal collectors of rain over the surface of the earth. You all know, if you have made any excursions to mountainous districts, that the weather is very inconstant there; that there is much more rain there than in any part of the level land. The water deposited from the air in the mountains goes down from them in the form of rivulets and rivers back to the sea, or it is collected in little lakes, from which it is removed by evaporation. Sometimes it is collected on the top of the mountain in the form of snow, which then is condensed into ice and forms glaciers. The water coming down to the surface of the earth through the fissures of the rocks washes out a great number of the soluble substances of the rocks and carries them to the ocean. These soluble substances, salts of different kinds, remain in the ocean, because the water from the ocean is lifted again only by evaporation, by distillation. All the soluble substances, therefore, are collected in the ocean; and wherever we have little lakes in desert plains, where there is no flow of water by which it can be removed to the ocean, we find the water saltish, because the salt is collected there. Besides this chemical decomposition of the rocks going on under the influence of water, the water also acts by mechanical power, particularly if it is converted into ice in the fissures of the rocks, when it splits the rocks and carries down the fragments in its course to the level land and to the ocean. These particles of the rocks which are separated are either great stones, or fine sand, or the finest powder which remains suspended a long time in water when it is in motion, and is deposited only when the water comes to a state of repose. In this way also at present new layers, either of broken stones, or of sandy soil, or of fine clay, are constantly produced over the surface of our earth, wherever water can bring these substances down from a higher level. This process, which has been of such great importance in the formation of the geological structure of the surface of the earth, is going on at present continuously.

Now, you see even from this very short and incomplete survey of the influence of heat, how great a variety of effects is produced by this single cause. All the motions of the earth, the winds, the rain, the weather, the snow, the phenomena of glaciers and rivers, the geological deposition of new layers of earth, even the electric processes in our atmosphere, are produced in this way by this one cause—by the heat of the sun coming down to the surface of the earth.

The more you look into the special processes, the greater the variety of these phenomena; but we have still a greater variety of phenomena depending upon the energy communicated to our earth by solar rays, if we look at the processes of vegetable and animal life, and principally the processes of vegetable life, which are under the direct influence of the solar rays. When the seed of a plant is developed to its full growth, you have at first in the seed a very small quantity of combustible matter. This quantity of combustible matter is increased as the plant developes. Take the small seeds of our trees, and then look at the trees when in full growth, and you will see what a great quantity of combustible matter is brought together by the process of vegetable development. When we burn a seed, with its small quantity of combustible matter, we do not get much heat by it; but if the seed is developed into a great tree, we have a large quantity of fuel, and we can produce a great quantity of heat by burning it, and derive a great quantity of mechanical power, or other kind of energy, by the heat produced in this way. You see, therefore, that the plants during their life collect a great store of energy. We may ask, what is the source of this energy? Now, first we have to put the question, what are the materials which are used by plants to construct and organise their bodies? Chemical investigations into the composition of vegetable substances have shown that the greater part of these substances which are collected in the body of plants are composed of three elements only—carbon, hydrogen, and oxygen. There is relatively a small quantity of nitrogenous substances, which is, indeed, of very great importance for other purposes, but it is small; and if we consider the plant only as fuel, as we shall do to-day, we need not refer to the nitrogenous substances. All those substances, as wood, starch, sugar, oil, gum, and other substances which we find in the body of plants, and which compose the greater part of the weight of its solid components, are composed of the three materials which I have mentioned. Now, it can be proved, with reference to the substances of wood, starch, fat, sugar, and the vegetable acids contained in plants, that the carbon, hydrogen, and oxygen which compose them are taken by the plants from carbonic acid and from water. Carbonic acid contains carbon and oxygen, and water contains hydrogen and oxygen; therefore these two combinations, carbonic acid and water, can really afford all the chemical elements which are wanted for vegetable life. But we know that if we have a quantity of fuel, say wood or oil, which contains carbon and hydrogen, and burn it, a great store of energy is changed to heat; that the energy of the chemical affinity of carbon to oxygen, and of hydrogen to oxygen, is lost by burning these substances. It is lost if carbon and oxygen are united into carbonic acid, and if hydrogen and oxygen are united into water. When we wish to restore this quantity of energy, as it is really restored during the life of the plants, we must have some other external source of energy which is capable of giving back the energy lost by burning the fuel; therefore, if plants take in carbonic acid and water, which no longer contains any quantity of chemical energy, and if the plants convert these substances into combustible substances, a new store of energy is collected in the plants, and there must be a source of this energy.

Now, the observations upon vegetable life have shown that plants can only grow under the influence of solar light; and that as long as solar light, and principally the more refrangible parts of solar light, the blue and violet rays, fall upon the green parts of the plants, the plants take in carbonic acid and exhale pure oxygen. The experiment can be made in a very simple way. We have here a bottle containing a quantity of common water, which has been saturated a little—not completely—with carbonic acid, just sufficient for the process of vegetation. We have put into the water a quantity of water-cress—green leaves—and closed the bottle, as you see. Then we have a glass tube going down into a little vessel filled with water, so that the water cannot flow out from the bottle. The bottle was exposed to the influence of solar rays yesterday afternoon, and from this morning till the commencement of my lecture. We now see that in the upper part of the bottle a great quantity of gas has been collected, and we may suppose that the greater part is oxygen, perhaps mixed with a certain quantity of carbonic acid taken with the water. Now, if I turn the bottle upwards and place a piece of lighted paper in the tube, we shall be able to see the nature of the gas. (Experiment.) A better method of collecting the oxygen is to bring the whole plant into an enclosed space of air, and to keep up the current of air which conducts fresh quantities of carbonic acid to the plant. Then, by analysing the air, one can get better measurements of the quantity of gas changed by vegetable life. We find, then, that plants decompose carbonic acid and give out free oxygen only under the influence of solar light. Therefore, we must ask if solar light can give the energy which is wanted to produce these effects. I have already remarked that only the blue and violet rays are capable of producing this effect upon plants; and it can be shown that these rays are, indeed, completely absorbed by the leaves of the plants, so that the solar light which has passed through green leaves in full development is no longer capable of exerting any chemical influence. This can be shown by a very simple experiment. I have here two screens of dark paper covered with glass plates. I have in the middle of one screen a piece of common writing paper, rather thick letter paper, not very transparent; and in the middle of the other screen a green leaf of a plant, and behind them I have put a small piece of photographic paper, so that by exposing these to the daylight the solar light penetrates through the paper and through the leaf to the photographic paper. These have been exposed only to the daylight of this lecture-room; but I have no doubt the result will be sufficiently apparent. If I remove the piece of letter paper, you will see a dark surface on the photographic paper, which

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is the photographic image of the hole in the dark screen; but if I remove the leaf, you see that the photographic paper is quite white: it has not been altered, although it has been exposed under the leaf during the whole time of this lecture. You will see that the white paper and the leaf are transparent very nearly in the same degree; so that the intensity of the light which went through the white paper is very nearly the same as that which went through the green leaf; but the green leaf absorbs completely all the chemical rays of the solar light, while the white paper does not absorb them. You will observe, if you look at photographic pictures of landscapes, that the green leaves are commonly very dark—unnaturally so. This is one of the great difficulties of photography when applied to landscapes. You see here some instances where the leaves are very black, while other parts of the pictures are light. If you wish to have a good photographic effect, you must take your picture from that side of the leaves which is illuminated, as in the picture before you, where you see the leaves are not so dark, the light being reflected. In this other picture, where the leaves are so dark, the tree has been illuminated from behind, and the light coming from the leaves has passed through them, and has, therefore, been completely bereft of its chemical rays; so that it has no effect upon the photographic paper. This is a very interesting phenomenon, and it shows how completely the plants are able to take in these chemical rays of solar light; and these rays are the only sources which the plants have for collecting new sources of energy.

COURSE OF

LECTURES
ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D.,
Professor in University College, and Assistant-Physician to University College Hospital.

LECTURE III.

(Continued from page 446.)

URÆMIA.

Uræmic poisoning is a subject of such grave importance to the Medical man that I must say a few words regarding it. There can be no doubt that urea is a powerful irritant poison. When injected into the veins of animals it rapidly induces fatal convulsions. It is not necessary, as some have imagined, that the urea should be decomposed in the blood in order to produce its toxic effects. On the contrary, I believe that urea is a far more dangerous poison than the substance into which it is decomposed, namely, the carbonate of ammonia. Both are, however, poisonous, and they frequently manifest their action together, for although we may, perhaps, have uræmic without ammoniacal poisoning, we cannot have the latter, as the result of disease, without its being in some measure associated with the former.

True uræmia depends on the arrested elimination of the poisonous material by the kidneys; true ammonæmia on the re-absorption into the circulation of the decomposed secreted product.

Uræmia may occur in the course of any disease in which suppression of the renal secretion takes place. It is therefore superfluous to specify the diseases in which it may occur by name.

Carbonate of ammonia poisoning occurs in its least complicated form in those cases where the urea, although secreted, is retained in the urinary passages until it is decomposed, and the products of its decomposition are reabsorbed into the blood. Just as was formerly said the normal ingredients are reabsorbed from the bladder, when from any cause the urine is retained for some length of time in that viscus. The conditions under which it most commonly occurs are therefore:—

1st. Sacculated kidneys.
2nd. Dilatation of the ureter and pelvis of the kidneys.
3rd. Renal abscess.
4th. Paralysis of the bladder.
5th. Enlarged prostate with retention.
6th. Stricture with retention; or, indeed, retention from any cause whatever,—all that is required to induce ammonæmia being the retention of the urine in the body sufficiently long to allow of the decomposition of its urea. It is quite surprising, indeed, in how very short a time retained urine may become ammoniacal. (b)

In Mr. Marshall's case of exfoliation of the bladder, which has during the last year given rise to so much discussion, the urine contained such an abundance of carbonate of ammonia that it effervesced exactly like a seidlitz powder when I added to it a few drops of acid.

The symptoms which distinguish ammonæmia from simple uræmic poisoning have been recently carefully pointed out by Jacksch (1860).

In ammonæmia the urine is ammoniacal when passed. The breath and perspiration are ammoniacal. The mucous membrane of the mouth is dry and shining. The complexion is sallow, and there is increasing emaciation. No dropsical symptoms are present. Convulsions are rare, but intermittent ague is frequent. Moreover, although in the acute form of the disease both vomiting and diarrhœa may occur, in chronic cases, which are much more common, these symptoms are always absent. Death is in general preceded by coma, varying from a few hours to several days in duration.

It is thus seen that the symptoms, as well as the pathology of ammonæmia, present striking features of difference to those of pure uræmia. The most characteristic of the latter being the vomiting, and diarrhœa, the convulsions, and coma. The treatment of the two cases is in several particulars equally different.

In the first place, ammonæmia arising, as it generally does, from directly remediable causes, is much more frequently under our control than uræmia. For example, when the ammonæmia is due to the simple retention of urine in the bladder repeated catheterisation is usually followed by a speedy cure. In no case is uræmia within the reach of instrumental interference. Its most remediable form is when it arises from some temporary incapacity of the kidneys to perform their office; as in suppression of the urine after scarlet fever, or in idiopathic nephritis. Here we can do good by relieving the congestion of the kidneys by cupping or leeching the loins; and when the patient is too weak for such active measures, by the application of dry cupping-glasses, poultices, and the free use of the air-bath. In most other particulars, the two diseases are to be treated alike; and when neither offers us a chance of permanent cure we can in general alleviate the sufferings, and prolong the life of the patient by reducing the formation, as well as by hastening the elimination of the urea. This may be accomplished by a proper selection of food and medicine.

The remedies which enable us to control the formation, and hasten the elimination, of urea are the following:—Whenever there is an excessive tissue waste, as indicated by an augmented excretion of urea, without any very apparent cause, the citrate of quinine and iron appears to be a most useful remedy. Sigmund has observed that digitalis diminishes the elimination of urea; and Kletzinsky, that benzoic acid has a similar effect, but in a much greater degree. The last-named observer states that the daily excretion of urea may actually be reduced to 2·5 grm. (38·75 grains), by benzoic acid, in the short space of twenty-four hours. The acetate and phosphate of soda, as well as colchicum, act in a similar manner (Parkes). On the other hand, we have several remedies which increase it. Thus, Sigmund found that cubebs and cantharides have this effect; and Parkes has noted that atropine augments its elimination. If we wish to diminish the urea by means of the diet, all that is necessary is to administer arrowroot, sago, tapioca, and other such starchy foods, well sweetened with sugar; and when a more nourishing diet than this is demanded, cream, cod-liver oil, or any other fatty matters that may be considered suitable to the particular case, will have an equally good effect in reducing the amount of urea. On the other hand, when it is deemed advisable to increase it, animal soups, eggs, milk, jellies, and other nitrogenised matters, together with a fair portion of common salt, will answer the purpose. To these may be added coffee, but without sugar.

In concluding my remarks on urea, I have to remind you how useful a knowledge of its daily excretion is in prognosis. Thus, it will have been gleaned from what has already been said regarding the amount of urea in the urine during the course of disease, that if, in cases of fever, such as typhoid and typhus, or of the exanthemata, such as small-pox and measles, or of inflammatory affections, such as pneumonia and meningitis, a decrease in the daily elimination of

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

(b) Urine becomes much more rapidly ammoniacal in than out of the body, in consequence of the animal warmth favouring its putrefaction.

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urea is observed, it may be regarded as a most favourable sign for the prognosis; for no sooner does a change for the better take place in these affections, than an immediate diminution in the amount of the urea is observable. During convalescence, the quantity is frequently below the normal standard. Whereas, in cases tending to a fatal termination, even in spite of the true febrile symptoms having passed away, the daily excretion of urea still remains high. Hence this sign may be a valuable and truthful guide when all others fail. If, on the other hand, in those diseases in which the excretion of urea is known to be abnormally small, such, for instance, as paralysis, cholera, or the different forms of albuminuria, an increase in its amount during the course of the case is noticed, it is an equally favourable sign for the prognosis; while, on the contrary, any further reduction in the amount of the eliminated urea cannot be otherwise regarded than a most untoward event, as, even when the other symptoms have improved, it is an almost infallible index of approaching danger.

Method of Estimating the Amount of Urea.

All that now remains for me to do is to show you the quickest and best method of ascertaining the quantity of urea contained in any given specimen of urine. This I believe to be Liebig's method,—for the employment of which furnish yourselves with the two following solutions, and prepared paper:—

1st. Liebig's standard solution of the proto-nitrate of mercury.(c)

Dissolve in strong nitric acid by the aid of heat 77·2 grammes (1196·6 grains) of dry oxide of mercury, sufficiently pure to leave no residue when volatilised on a platinum spatula. Evaporate the solution to the consistence of a syrup, and then dilute it up to 1000 cubic centimetres with distilled water. If any precipitate of basic salt should form, add a drop or two more of the acid till it is redissolved. One cubic centimetre of this solution precipitates 0·01 gramme (0·15 grain) of urea.

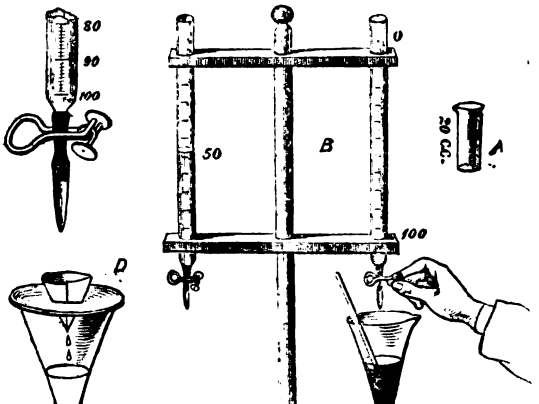
2nd. Baryta solution.

Mix one part of a cold saturated solution of nitrate of baryta with two parts of a cold saturated solution of caustic baryta, and then reduce the mixture to one-half its strength by adding an equal amount of distilled water.

3rd. Impregnate a sheet of ordinary white filter paper with a saturated solution of carbonate or bicarbonate of soda; dry, and cut it into strips six inches long and one inch broad. These may be kept in readiness in a wide-mouthed, stoppered bottle.

The next point is the requisite apparatus, the whole of which is represented in Fig. 8.

Fig. 8.



A. A glass measure holding exactly twenty c.c. when full to overflowing.
B. A stand containing two Burettes graduated in cubic or half cubic centimetres.
C.C. Two glasses, made specially of a conical form, in order to act as a support to
D. A glass filter-holder, like a candle ornament, only larger.
E A filter.

(c) The standard solutions are to be obtained from Schacht and Hilgenberg, 88, Houndsditch; Bullock and Reynolds, Hanover-street, Hanover-square.

By using the above apparatus and proceeding in the manner I am now about to show you, one can easily make a quantitative analysis of urea in ten or fifteen minutes. I need not waste your time by explaining in what the superiority of the mode of procedure consists, as those who are in the habit of making these analyses will at once observe its practical advantages; while to those to whom the subject is new, it signifies not whether it is precisely the same or totally different from the ordinary methods, so long as it is the quickest and best.

Fill glass *A* as I now do to overflowing with urine; empty it into one of the conical *(C)* glasses; again fill it to overflowing with the baryta solution, which will precipitate all the sulphates and phosphates, and add it to the urine. Stir the mixture well, and then leave it for a few minutes at rest, while you take a filter, fold it in four, moisten it with distilled water, and insert it into the holder *(D)* placed over the other conical glass. Having done this, pour the mixture of urine and baryta solution into it, and while the filtering is going on fill one of the Burettes *(B)* with Liebig's standard solution to the level of the first graduation. Place ready on the stand one of the soda papers.

You perceive that a considerable quantity of pure liquid has now filtered through the paper. You need not wait till the whole has passed through, but at once fill the *A* measure with the filtrate to overflowing, throw away the remainder, and return these 20 c.c. of mixture, which of course contain 10 of urine, to the glass. Now add to it a few drops of nitrate of silver, in order to precipitate the chlorides, for as long as any soluble chloride is present the nitrate of mercury will give no precipitate with urea. (Many do not remove the chlorides unless they are in large quantity, as in ordinary cases they can scarcely be considered to interfere with the experiment.) I now add a drop or two of carbonate of soda solution to the liquid, in order to be perfectly sure that it is alkaline—in acid solutions the precipitate of mercury and urea ($NO_5Ur + 4HgO$) does not form—and at once proceed gradually to add to it the standard solution until all the urea is precipitated, and there remains a slight excess of the standard solution in the liquid. This is known by a drop of the mixture producing a yellow stain on falling on the soda paper. Whenever this coloration is detected, the analysis is completed, and the quantity of urea in the twenty-four hours' urine is ascertained by the following calculation:—You perceive that we have used 50 c.c. of the standard solution to precipitate the urea in 10 c.c. of urine, and 50 c.c. of the standard solution is equal to 0·5 gramme (7·5 grains) of urea; consequently as the patient passed 800 c.c. of urine in the twenty-four hours, we multiply the 800 by 0·5, and divide the result by 10, the quantity of urine analysed. The product represents the quantity of urea excreted in the twenty-four hours.

$$\frac{800 \times 0{\cdot}5}{10} = 40$$

namely, 40 grammes (620 grains).

N.B.—*Albuminuria.*—In albuminous urine the urea cannot be estimated till after the albumen is removed. In order to do so, acidulate the quantity of urine to be operated on with a few drops of acetic acid. Boil it rapidly for a minute or two over the spirit lamp, and then place it aside to cool. When cold, the coagulated albumen will be found deposited at the bottom of the vessel, and the clear supernatant liquid can either be filtered or decanted. It is now ready to be operated upon as above.

Albumen may also be separated from urine by passing the liquid through a filter filled with crystals of sulphate of soda. These have the power of arresting the albumen.

Diabetes.—The presence of sugar in the urine in no way interferes with the analysis of urea.

Mucus.—When urine contains a large quantity of mucus or other deposit, only the clear supernatant liquid is to be employed in testing for urea.

St. Andrew's University.—Graduates' Dinner.—The Doctors of St. Andrew's University hold an anniversary dinner at the London Tavern on Tuesday next; Dr. Richardson in the chair. This, the first dinner of the kind, is sure to draw together a large number of the many influential Medical representatives of the University. The presentation of a testimonial to Dr. Day will form part of the proceedings. We hope the event will pass off as successfully as the graduates can wish.

THE OPTICAL DEFECTS OF THE EYE.

A COURSE OF LECTURES DELIVERED DURING THE SUMMER OF 1862 AT THE

Surrey Ophthalmic Hospital,

By J. ZACHARIAH LAURENCE, F.R.C.S., M.B. Univ. Lond.,

Surgeon to the Hospital.

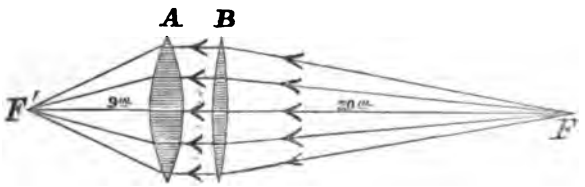
Part I.—Optical Considerations.

(Continued from page 421.)

We have now considered the optical effect of a convex lens on parallel rays, such as emanate from objects at any distance greater than four feet from the lens. But suppose the object situate at any less distance, but greater than the principal focal length, from the lens, then the rays of light which proceed from each luminous point are no longer parallel, but divergent. It will now be found the lens still retains its power of re-uniting the rays to a point—of focussing them. But the focus is now further off the lens than the principal focus. I think I may explain this result by a very simple demonstration. Take the case, *e.g.*, of a 6-inch convex lens. Such a lens unites parallel rays to a focus at six inches. Suppose, however, the rays of light, instead of being parallel to, diverge from, a luminous point, say, twenty inches distant from the lens, then, as I have before said, they would, after passing through a 20-inch lens, issue parallel. Now, a 6-inch lens may (according to the proposition before announced) be considered as equivalent to the combination of a 20-inch lens and a 9-inch lens; for $\frac{1}{6} = \frac{1}{20} + \frac{1}{9}$ (nearly). So that we may assume that that part of the 6-inch lens which is equivalent to a 20-inch lens has been employed in converting the ray diverging twenty inches from its surface into parallel ones; these then strike that remaining part of the 6-inch lens which is equivalent to the 9-inch lens, and are, therefore, brought to a focus at nine inches from this latter. So that the final result is, that rays diverging from a luminous point twenty inches from a 6-inch convex lens are brought to a focus at a distance of nine inches from its surface.(a)

Fig. 9 illustrates the presumed theory graphically :—

Fig. 9.



B = 20-inch lens } Together equivalent to a 6-inch lens.
A = 9-inch lens }
F = a luminous point, twenty inches from *B*.
*F*¹ = focus of combined lenses, nine inches from *A*.

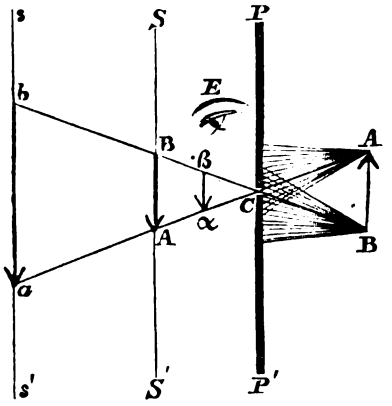
As the luminous point approaches nearer and nearer to the lens, the focus of the emergent rays moves further and further off, till, as I have before said, when the luminous point arrives at the principal focus of the lens, the emergent rays are not united to a focus at all, but issue parallel to one another.

We are now prepared to understand how a convex lens possesses the power of forming an *image* of an object placed in front of it. As I have before explained, every object in nature may be considered as composed of an infinite number of points, either in themselves luminous or rendered so by reflected light, every such luminous point emitting a pencil of rays, either divergent or parallel, according to the distance of the object from the surface on which the rays fall. If the rays of any one pencil are made to again converge, the luminous point from which they in the first instance emanated is, so to say, again reproduced at their point of union (focus). In this way, each luminous point of the object having its optical representative, an "image" of the object is formed. We understand, then, by the term "image" of an object, its optical reproduction. An object has certain physical properties: its extension in space, its power of affecting our sense of touch. It may possess heating or electrical attributes, and, as a rule, always has an optical existence. Certain bodies, however, such as gases, having neither any inherent nor acquired luminosity, may be said to have no optical existence; at any rate, as far as our means of ascertaining any such existence extend, although they may have certain optical properties, such as the power of refracting or polarising the light emitted from other bodies. If you regard yourself in a looking-glass, you see yourself optically reproduced, but not in any other sense; your image conveys to you no direct information of any other physical properties you may possess; you cannot, hence, directly infer whether your flesh is hard or soft, whether your body feels hot or cold, whether you are in any particular electrical state, etc. Your image in the glass is your optical reproduction, and nothing more.

If in a plate of metal a minute aperture is drilled, and on one side of the plate an object (the flame of a candle) be placed, whilst on the other side is held a sheet of paper, an *inverted* image of the flame will be observed on the paper. To understand this result, we must premise that light travels only in straight lines. Look at the sky through a flexible tube; bend the tube, and the sky will no longer be perceived.

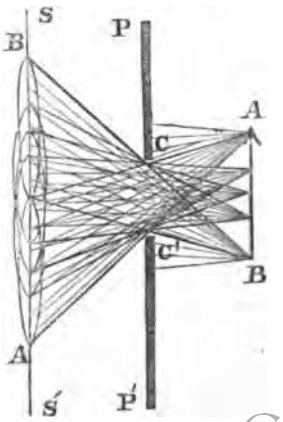
Let *AB* (Fig. 10) be an object from every point of which a

Fig. 10.



pencil of divergent (or parallel, as the case may be) rays proceeds (only those which proceed from the top and bottom of the object are represented in the figure), *PP'* a plate of metal perforated at its centre *C*, so as to admit of but a single ray of light passing through it, *SS'* a sheet of paper. A single ray, as *AA* and *BB*, from each point of the object will strike the paper, and hence, being reflected to the eye, *E*, of an observer, a distinct *inverted* image, *BA*, of the object will be perceived. It will be remarked, that the inversion of the image is caused by the fact that rays of light only travel in straight lines.(b) A simple inspection of the figure shows that if the sheet of paper is as far behind the aperture in the

Fig. 11.



(a) We may hence deduce the practical rule: To find the focus of rays diverging from any given distance from a convex lens of known focal length, subtract from the power of the lens the fraction whose numerator is unity, and whose denominator is the distance of the object from the lens; the resulting fraction reduced to a fraction whose numerator is unity gives in its denominator the distance from the lens to which the rays will be converged to a focus by the lens.

(b) In such an elementary exposition as the above, I ignore the inflexion of light.

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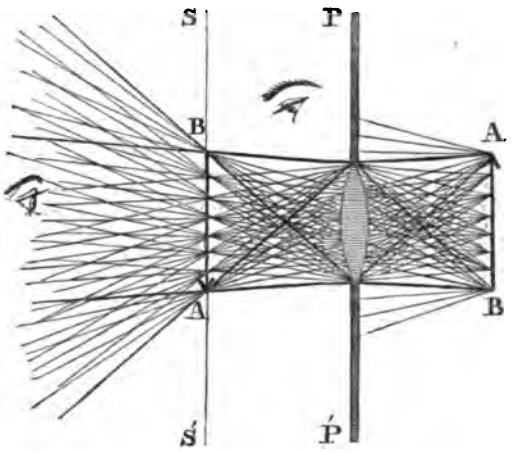
plate as the object is in front of it, the image (*BA*) will be equal in size to the object; if closer, less (*βα*); if further off, greater (*ba*). As of all the rays that diverge from each luminous point of the object only one of each pencil strikes the paper (the rest being cut off by the opaque plate of metal), it follows that the image will be greatly inferior in brightness to the object. If we, as in Fig. 11, increase the aperture in the plate, more rays of the pencils from each point of the object are received on the paper, but each point of the object is no longer represented by a point, but by a *circle* (the section of each conical pencil of rays) on the paper; these circles ("circles of confusion") from contiguous points necessarily overlap, hence the image is no longer a faithful optical representation of the object, but appears blurred and indistinct. In other words, we have lost in definition what we have gained in brightness by the enlargement of the aperture in the plate. Suppose we now

Fig. 12.



in the enlarged aperture *CC'*, place a double convex lens, then the rays of each divergent pencil, from every luminous point of the object, will be reunited by the power of the lens into a corresponding luminous point in the image, and we shall obtain all the advantages of distinctness of definition combined with a due degree of luminosity in the image. (Fig. 12.) An eye in front of the paper will perceive an inverted image of the object by reflected light; if an aperture be made in the paper, an eye placed behind the aperture will see an inverted image of the object, suspended, as it were, in the air (an "aërial image"), formed by the rays of the convergent pencils which produce the image, diverging again after their reunion. If the object be at a considerable distance from the convex lens, of course the image will be formed at its principal focal length; after the object is about four feet from the lens, as it approaches nearer, so the image recedes, and at the same time becomes larger. A little reflection shows these facts to be an immediate consequence of what has been already said regarding the foci of convex lenses, and the optical effects of a minute aperture.

I now wish to direct your attention to some phenomena which are the direct consequences of what has preceded, and which are of great importance in the physiology and pathology of the optical apparatus of the eye.

If we place a candle-flame at a considerable distance from an 8-inch lens, a screen placed eight inches behind this latter will exhibit a distinct inverted image of the flame; if we now bring the flame closer to the lens, say, to fourteen inches from it, this approximation of the object is accompanied by a corresponding recession of the image(c); *if the screen still remains at* 8", only an indistinct, blurred, *quasi* image of the flame will be seen; but by placing a 14-inch lens next to the 8-inch one, we re-obtain a perfectly distinct (larger) image of the flame on the screen. The *rationale* of this is very simple; the 14-inch lens has the effect of rendering parallel the rays which diverge from each luminous point of the object fourteen inches in front of it: these parallel rays impinging on the 8-inch lens are then focussed at eight inches—the original position of the screen. Of course, for the two (14- and 8-inch) lenses we may substitute a single 5-inch one; for $\frac{1}{14} + \frac{1}{8} = \frac{1}{5}$ (nearly). As we shall see further on, this is precisely what occurs in the human eye, in the act of accommodation for near objects.

The converse experiment is important in the theory of myopia. The flame being at a considerable distance off, and the screen being at eight inches from the 8-inch lens, substitute for this latter a 5-inch one: no distinct image of the flame then appears on the screen. Now place a 14-inch concave lens next to the 8-inch convex one, and a distinct image on the screen is at once produced. After what has preceded, the equation, $\frac{1}{5} - \frac{1}{14} = \frac{1}{8}$ (nearly), sufficiently explains the above result.

In all the cases we have been hitherto considering, the rays of light which converge to form the image actually meet, and may be received on a screen; or, if we remove this latter, the aërial image may, by a little attention, be seen suspended in the air, as it were—to be an "aërial image," as it is termed. But as soon as the object approaches the lens to a distance anything less than the principal focal length of this latter, a remarkable change ensues; the image all at once transplants itself to the same side as the object, and simultaneously becomes erect. (Before, it was on the contrary side of the lens to the object, and inverted.) This image, however, cannot be received on a screen. It is not, as in the case of the inverted image, a *real*, but only an *imaginary* (virtual) one; or, if I were to designate the real image as a *physical*, I should call the imaginary a *physiological* one.(d) If this course were one of pure optics, I should now bring before you the subject of concave lenses; but as these find their application in myopia, I shall defer speaking of them till I come to that part of our subject.

(c) In fact, the distance behind the lens at which a distinct image of the flame is formed is 19", so that the screen must be moved eleven inches further back for the observation of a distinct image.

(d) A convex lens used as a magnifier, in the sense referred to in the text, is simply an artificial addition to our accommodation, which enables us to view the object under a greater angle than we otherwise could do, and in combination with a mental reference of the image to a further plane of projection than the object itself really occupies. This explanation will first be rendered clear by subsequent explanations.

(e) It will be seen that there are cases in which, in certain places, a thickening of the parietes of the arteries carrying blood to the brain had become so excessive that the tube of the vessels was to a considerable degree obliterated, and in which the passage of the blood must, of necessity, have been interfered with in consequence.

ORIGINAL COMMUNICATIONS.

CASES OF SOFTENING OF THE BRAIN AND SPINAL CORD.

By JOHN W. OGLE, M.D., F.R.C.P.,
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The cases of softening of the nervous centres which are contained in this contribution are all of a simple or uncomplicated nature, as I have with a purpose excluded all such as are connected with other affections of the nervous structures, as injuries, extravasation of blood, tumours, morbid deposits and cysts, abscesses, secondary deposits, inflammatory conditions of the membranes, etc., and also such as are met with in general morbid states like fever. The co-existence of such conditions may well be considered as complications. I shall not omit to include among the present list of cases such instances of softening as are of the nature of secondary deposits, and also such as are obviously or apparently the result of disease of the heart or of the *blood-vessels*, whether of those which supply the nerve-tissues, viz., the arteries (including cases of so-called embolism and also cases of alteration in the walls of the arteries) (e); or of those which carry the blood from the nerve tissues, viz., veins and sinuses within the cranium (including thrombosis). I find it personally convenient in the first instance to record the cases, and to leave such commentaries as they may suggest, and such inductions as may arise out of their consideration, until after they shall have been related. In doing this I shall as much as possible observe a uniform order, giving firstly the previous histories of the cases, then passing on to the progress and course of the symptoms, and lastly describing the appearances found after death. All these details I shall record with as much brevity and conciseness as a due regard to perspicuity will permit.

I.—Softening of the Brain.

Case 1.—Elizabeth S., aged 57, was admitted into St. George's Hospital July 31, 1844. Had been often attacked by a sensation of fulness and distress at upper part of abdomen,

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with spasmodic pain—generally during the night. A purge brought away much lumpy fæces, and she improved.

August 4.—Another spasmodic attack.

5th.—Spasmodic dyspnœa came on, lasting all night; complained of a sensation of sinking at the præcordial region; a blister gave no relief. Dyspnœa continued until the 7th, when another spasmodic attack occurred, followed by death in a few hours.

Post-mortem Examination.—Cranium: Clear sub-arachnoïd fluid, also fluid in ventricles, which were dilated; posterior part of corpus callosum and of fornix softened; arteries of the first and second order at base of brain very atheromatous and brittle, and in many cases the deposit contracted the tube to a very considerable extent. Thorax: Lungs hepatised; left ventricle of heart hypertrophied, and its valves containing interstitial deposit; whole aorta highly atheromatous. Abdomen: Kidneys highly diseased.

Case 2.—Thomas H., aged 40, was admitted into St. George's Hospital, January 10, 1844. Of full plethoric habit, with short neck. Intemperate. Had had a fit of "apoplexy" four days before admission, for which he was bled, so regaining his consciousness. Admitted sensible, but with almost entire loss of speech; limbs of *right* side paralysed—the arm being the worst; face flushed; heart's sounds natural, and also pulse; tongue moist, but loaded and pushed to the right side, though it could be moved in any direction. Was purged and blistered at the nape of neck. He improved in speech and in everything else until the 29th, when severe headache came on. He had never had headache before. Diarrhœa set in with much debility and tendency to syncope. In the evening of the 29th the patient had another sudden attack, and lost his speech entirely, but when roused was quite conscious. Pupils contracted; eyes suffused; conjunctivæ injected. Skin hot but moist; tongue dry and furred; pulse very small and unsteady. Was again blistered at nape of neck, and mist. cretæ with brandy ordered. The diarrhœa ceased, but the pulse became more unsteady. He sank and died on the 30th.

Post-mortem Examination Seventeen Hours after Death.—Cranium: Cerebral veins very prominent; much clear fluid in sub-arachnoïd tissues and in ventricles; arachnoïd and pia-mater slightly thickened; brain watery; "puncta" on section large and numerous; the *left* corpus striatum presented a dirty yellow part one inch and a-half by one inch, in size, having a few small puncta in different parts. This portion was very soft, in some places quite diffluent, and was surrounded by a thin stratum of vascular brain-substance; otherwise the surrounding tissues were quite healthy. Thorax: Aortic valve and flaps thickened—two of them united, *and having soft red fibrin masses attached.* Lungs rather œdematous. Abdominal organs natural.

Case 3.—Louisa B., aged 38, was admitted into St. George's Hospital May 8, 1844. Had had dropsy following rheumatic fever, with diseased heart and kidneys, dyspnœa, cough, and expectoration, and pain near the heart. On admission, heart's impulse extended over too large a surface, its second sound obscuring the first, and too loud. Urine albuminous. Severe pain in the legs came on, attended by some loss of power, which was relieved by sinapisms. Pain in the head followed, coming on during, and awaking her out of, sleep. The next day the *left* side became suddenly paralysed, but she remained conscious, though a state of stupor came on; could be roused to answer questions. The right pupil was dilated, the left contracted. Coma preceded death, which occurred on the 23rd.

Post-mortem Examination Twenty-eight Hours after Death.—Universal œdema of the surface. Cranium: Slight sub-arachnoïd serum in ventricles, which were of natural size; membranes transparent; convolutions of brain slightly flattened. Middle lobe of brain at outer surface of the *right* corpus striatum to the extent of one and a-half inches, softened and quite pulpy, and of a purplish colour. Here both grey and white substances of the brain were of the same purplish hue; no blood was found to be extravasated. Thorax: Heart dilated and hypertrophied; left valve-flaps slightly thickened; slight pleuritic adhesions. Lungs condensed; in one lung a mass of yellow firm matter, containing numerous blood-vessels, was found. Abdomen: Kidneys diseased; one containing deposit like that found in the lung. Spleen contained several similar deposits.

Case 4.—John D., aged 40, was admitted into St. George's Hospital August 5, 1845. Intemperate. Two days before admission had had an apoplectic fit, having had transitory promonitory symptoms five weeks before, but no treatment. Fell down in convulsions, with stertor, followed by hemiplegia of the *right* side. Had been bled to ʒxvj. A turpentine injection given, and calomel and croton oil, bringing away much fœcal matter. Insensible for some time, but afterwards it was found that sensibility of the skin on the right side remained; the mouth drawn to the left. Left ptosis: Pupils acting well and equally. Could not speak, but appeared sensible, signifying when he wanted to pass urine or fæces; nervous and suspicious, and refused to put out tongue; there was almost constantly slight twitching of the voluntary muscles; aspect heavy. Slept much; appetite good; pulse 65, soft; bowels costive; urine 1019, acid, not albuminous; was cupped to ʒxvj.; bowels kept open with medicine. Became very delirious for two or three hours, but subsequently quieter. Convulsive movements increased; foamed at mouth, and passed evacuations involuntarily. No squinting, but occasional stertor. Became quieter after ice was applied to the shaved head and injections given. Cried much on seeing his wife. Tendency to twitchings remained. The ung. hyd. rubbed in. Became weaker; pulse 100; gums sore. Back requiring water-bed; gradually sank and died August 31.

Post-mortem Examination.—Cranium: *Left* cerebral hemisphere collapsed and very soft, and with feeling of fluctuation. Membranes covering were opaque, congested in patches, and having on them occasional particles of lymph in some places. *Left* hemisphere, on section, very pink; very diffluent in places, especially about the corpus striatum and outer part of the thalamus opticus. Two-thirds of the hemisphere involved. Corpus callosum and fornix softened. Thorax: Lungs containing frothy serum. Heart soft, flaccid, with dilated cavities.

Case 5.—Sarah W., aged 37, admitted into St. George's Hospital January 15, 1845. Six months previously was suddenly affected with giddiness and partial hemiplegia of the *left* side; did not lose her senses or the use of limbs so as to fall. In a fortnight she quite regained power; but since then had had pain at the right side of her head, occasional numbness of the surface of the left side of her body, and constant violent palpitation. Feet swollen; within the last fortnight cough and dyspnœa; never had had rheumatism.

On admission there was slight cough, much dyspnœa, and slight mucous expectoration; much headache, chiefly on the right side, and palpitation; heart's action irregular, not violent; pulse very weak, irregular, hardly perceptible; sounds of heart, with loud murmur, most distinct over aortic valves and along the aorta; crepitation over all the lungs; bowels costive; urine acid, not albuminous. Purgatives, sedatives, and anti-spasmodics given. Sleeplessness came on. Palpitation, and fainting, and orthopnœa supervened. Symptoms became aggravated. Left arm and both lower limbs became anasarcous and dyspnœa distressing; remained generally half delirious until death, which occurred March 30.

Post-mortem Examination.—Cranium: Much sub-arachnoïd fluid; brain natural, except one portion of the size of a half-penny on the outside of the *right* lateral vetricle, which was decidedly softened and partially broken down. Thorax: Much pleural fluid; lungs gorged; bronchi dark and livid; heart's walls thin: cavities dilated; mitral flaps rather thickened; aorta dilated above valves. Abdomen: Organs natural.

Case 6.—S. S., admitted into the Hospital July 22, 1845. She was in good health when married, July 1. On the 6th had pain in the head, which shortly became very much worse, and she got up, insisting that she had had a fit; had been delirious; the evacuations involuntary; blister applied to the neck; and medicine given.

On admission face flushed, skin hot, especially head; pupils much dilated, but acted, though sluggishly; pulse 120; tongue dry and clean; unconscious, but answering questions when roused, and following people around her with anxious looks; speech imperfect; voice weak; when asked about pain pointed to her head; abdomen soft and flaccid, but pressure gave pain; no vomiting; no petechiæ on the skin; no albumen in urine; lungs congested; cough, with thin sputum; chest well expanding on deep inspiration. Ordered twelve leeches to temples. Salines, with calomel and rhubarb, given to-day, and subsequently ʒii. wine. Improved so as to speak to those about her, and even passed evacuations consciously; the pupils acting better. Later on she became delirious after a bad night, and jerking at the bed clothes and muscæ volitantes came on. Bark, ammonia, and wine given. Bed sores came on; tongue dry; refused food; delirious four days before death, which occurred August 7.

Post-mortem Examination.—Small quantity of clear fluid was found in the sub-arachnoïd tissues; but the ventricles were

net dilated, nor containing more fluid than usual; fornix and back part of corpus callosum diffluent; whole of brain and cerebellum blanched and somewhat softer than usual. Thorax: Lungs with emphysema anteriorly; posteriorly œdema and congestion; other organs natural; no blood in heart's cavities; abdominal organs natural.

Case 7.—Thom. T., aged 12, was admitted February 18, 1846. Had been ill five weeks with rheumatic (?) pains in limbs, but never redness or swelling of joints; always "hot and thirsty," but had not perspired. Lost flesh and appetite. Restless until a few days ago, when he became drowsy, and pain came on in the left side of the chest, attended by slight hæmoptysis.

On Admission.—Face suffused. Screamed when touched. There was a rolling of the head in bed. Sordes on teeth; tongue brown, furred, dry; skin hot; pulse 108, quick, but regular; heart's sounds and action natural. Bowels costive. An enema was administered and wine given.

Became violently delirious in the evening, and subsequently screamed much. When roused he put up his hand to the left side of his chest. Cal. and opium and effervescing salines given; and subsequently the wine was increased. He died two days after admission.

Post-mortem Examination.—Cranium.—Cerebral membranes were vascular. The septum of ventricles and fornix very softened, and broken up in places. Other parts of the brain were natural. Thorax.—Lungs hepatised, and containing tubercles. Heart healthy, excepting that *a slight number of recent fibrinous granulations* were found on the valves of the heart.

(To be continued.)

TYPHOID FEVER IN CONNEXION WITH PREGNANCY.

By E. E. DAY, M.R.C.P. Lond.

The occurrence of fever, of whatever kind, in connection with pregnancy is always a matter of serious anxiety to the Medical attendant, and is often attended with fatal results to the patient. When such an attack comes on at an early period of pregnancy, miscarriage, with its accompanying dangers, generally ensues; but if not, the fœtus generally suffers, and it is small and imperfectly developed, or it may bear the marks of the disease having affected it in its intra-uterine life, as in the case of small-pox. Last autumn a child was born in King's College Hospital, with two pits on the face, which were evidently the effect of small-pox from which the mother had suffered in the preceding summer.

When an attack comes on at a later period, premature labour will generally result, and then may follow either a more severe form of the primary disease, or it may change its type and become puerperal fever, with all its local affections—*e.g.*, uterine phlebitis, pelvic abscess, etc. Or it may happen that the fever-poison so paralyses the nervous system that the patient sinks in a state of coma.

The influence on the child will vary. In some cases, if the woman be close to her time, the uterus may take on contractile action and expel the child quickly; in such cases the child may live, but if it remains in utero some little time during the progress of the disease the blood which should nourish it has become poisoned, and the child will die without any sign discoverable by post-mortem examination to account for its death.

Lastly, the disease, being slight in character, may commence, continue, and terminate with little effect in the uterine system.

In the case which I am about to relate the disease seems to have roused parturient action and destroyed the child, but after that to have had no influence in retarding the natural recovery, as far as the confinement was concerned.

Mrs. P. was confined on March 11, 1864, under the following circumstances:—

She was 30 years of age, was married, and had had several children. Six weeks ago she had a child seized with typhoid fever, for which she applied to the Carey-street Dispensary, from which institution it was attended at its own home. A fortnight after that, a second child was taken ill, and was sent to Guy's Hospital; a week after, a third child was attacked, and it was sent into King's College Hospital.

On Sunday, March 7, the mother, who was, as far as she could tell, eight months and a week gone in pregnancy, after being tired out with nursing the first child, was seized with shivering headache and loss of appetite. This continued Monday and Tuesday. On Tuesday evening labour set in, and she was confined, after a natural but tedious labour, on Thursday evening of a dead child. The placenta did not come away, but was removed by the student in attendance. The breasts gave no trouble. When they began to fill they were covered with belladonna plasters. The lochia went through their natural course.

On Saturday, when I first saw her, her pulse was 140; tongue white in the centre and surrounded by red papillæ; head aching; uterus well contracted, not tender; several rose-coloured spots were scattered over the abdomen, which was only slightly tympanitic. She was taking ammonia and chloric ether. I ordered beef tea thickened with arrowroot, 6 oz. of port wine, and the following draught every four hours:—Acid. nit. hydrochlor. dil., ♏xx.; liq. cinchonæ, ♏xv.; water, ℥j. Mix. In the evening, before she had taken any of this medicine, she was seized with violent diarrhœa and was purged nine or ten times. This was arrested by opium and catechu.

15th.—The bowels were only open once yesterday. Pulse 120. Urine normal. Lung sounds natural, except a little wheezing.

17th.—Yesterday and to-day the bowels have been relaxed. Pulse 120. Ordered tinct. krameriæ, ℥j.; decoct. hæmatoxyli. ℥j. Ft. haust. post sing., sedes sumendus.

19th.—The bowels were only open once to-day. Appetite better. Pulse 100. To continue the nitro hydrochloric acid.

From this time she recovered well.

The only other point which strikes one in connexion with this case is the importance of removing the mother from the causes which may have given rise to the fever, or at least of sending all the children away from her. For want of this precaution many a mother has been sacrificed by nursing her sick children.

CLINICAL NOTES AND OBSERVATIONS.

By F. A. BULLEY, F.R.C.S.,

Senior Surgeon to the Royal Berkshire Hospital, Reading.

CONTRACTION AND THICKENING OF THE PALMAR FASCIA — PERMANENT FLEXURE OF THE FINGERS.

Richard B., aged 52, a labouring man from the country, was admitted into the Hospital December 22, 1863, on account of a contraction of the left ring finger, which had become so firmly bent into the palm as to render the hand almost useless. The least attempt to extend it caused great pain. The contraction was occasioned by a tense projecting band of firm hard tissue, which extended from the first phalanx of the finger backwards nearly as far as the carpo-metacarpal joint. The other fingers were similarly affected, but not in so great a degree, by a puckered contraction of the integument of the palm, which was everywhere converted into a brawny inelastic structure, in which the subcutaneous cellular tissue, as well as the aponeurosis underneath, appeared to be involved. The same kind of change was commencing in the opposite hand, but had not yet produced any permanent flexure of the fingers. The disease had been coming on about eight or nine years, and he dates its commencement to repeated attacks of rheumatic inflammation, particularly affecting the knuckle joints, which had become stiffened and incapable of complete extension for some time before contraction commenced in the palm. He had been subject to rheumatic affections all his life, and had been two or three times under treatment in the Bath Hospital, but latterly he had been comparatively free from the disease.

Thinking the deformity might be at least partially removed by an operation, I divided the projecting band as well as the whole of the contracted tissues in the palm of the hand, which immediately allowed of the straightening of the fingers to a great extent, but not completely, the hindrance to complete extension being evidently due to the old rheumatic stiffness of the knuckle joints. The fingers were afterwards kept extended on a flat hand splint, and at the end of a month he had so far recovered the use of his hand as to be able to be discharged from the Hospital, the hardened tissue of the palm having almost entirely disappeared.

Some difference of opinion formerly existed as to the origin and nature of this peculiar kind of contraction. By some it

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was believed to be the consequence of that horny condition of the palm which is induced by hard labour, but as the disease has been found to occur in persons who have never been subject to this cause, some other reason may be safely assigned for its occurrence. In the instance which I have related, as well as in one or two other cases of the same kind which have come under my notice, I have reason to believe that the affection has commenced in the contraction of the carpo-metacarpal joints through a kind of chronic rheumatic arthritis especially affecting them, and that thus the palmar aponeurosis, becoming slackened by the gradual approximation of its attachments, has undergone the particular kind of shortening upon itself, with consequent condensation of tissue, which I have described.

P.S.—I omitted to mention that on the division of the contracted parts, the tendons underneath, together with their sheaths, were found to be quite free from contraction, and had evidently been not at all concerned in the disease.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

HOSPITAL FOR EPILEPSY AND PARALYSIS.

CLINICAL REMARKS ON CASES OF DEFECTS OF SIGHT IN DISEASES OF THE NERVOUS SYSTEM.

(Cases under the care of Dr. HUGHLINGS JACKSON.)

It is of as much importance to the Physician to distinguish the various kinds of amaurosis occurring in brain disease for their value as symptoms, as it is to the ophthalmologist for treatment as diseases of the eye. Dr. Hughlings Jackson recently made some remarks on this subject at the Hospital for Epilepsy and Paralysis. He said, that as six of the nine cranial nerves—the optic, third, fourth, fifth, sixth, and portio dura of the seventh (for the orbicularis and tensor tarsi)—had more or less to do with sight, a knowledge of diseases of the eye was of the very utmost importance in the investigation of intracranial disease.

Defects of sight were more frequent in diseases of the nervous system than defects of all the other special senses put together. Of defects of smell he knew little or nothing, and next to nothing of defects of taste; but he had inquired carefully as to defects of hearing, and had found deafness to be much less frequent than blindness, and when present it was often due to organic disease of the ear and attended by discharge. Complete blindness was, he said, very commonly met with, but complete deafness was a very rare symptom in brain disease in his experience. Defects of hearing ought, he said, to be studied by Physicians for the same reason as defects of sight, viz., for their value as symptoms. The watch ought to be used to each ear, as a patient might not be aware that hearing on one side was impaired. It need scarcely be said that a common simple cause of slight deafness was wax in the external auditory meatus; and therefore, in noting impaired hearing, we ought to be careful that we were not putting down a symptom which really had no bearing on disease of the nervous system.

Dr. Hughlings Jackson then gave examples of the very great variety of causes of blindness in brain disease, and he submitted that to put down "amaurosis" as a symptom, without further description, was far from being precise. To begin with, the so-called amaurosis following diphtheria was not amaurosis, even in the loosest sense. It was in physiological language a loss of accommodation, and in anatomical language a paralysis of those branches of the third nerve which pass through the lenticular ganglion. Dr. Jackson said that diphtherial paralysis differed from all other kinds of paralysis with which he was acquainted in seeming to have a great preference for those branches of nerves which pass through the ganglia of the sympathetic. For instance, in the so-called diphtheritic amaurosis the whole of the third nerve was not paralysed, but only those branches which pass through the lenticular ganglion. The facial was not paralysed, but those branches of nerves given off by Meckel's ganglion to the palate. Next as to the otic ganglion. Hearing was practically not affected at all in the general run of cases, as the accessory muscles of the ear have far less to do with the functions of the organ of hearing than the ciliary muscle has with sight. But in one case, that of a well-educated Medical man, notes of which had been furnished to Dr. Hughlings Jackson, there was slight defect of hearing. It was not enough to render the patient unable to converse, but, to use the patient's expression, it "rendered music unintelligible." Next there was in this case, too, defect, not loss, of taste, due probably to an affection of the branch of the facial (the chorda tympani), given off to the submaxillary ganglion. Again, it is well known that slowness of pulse is a very dangerous symptom in heart disease. It is possible that this, too, is due to an affection of the sympathetic, as the heart receives much of its nervous endowment from its cervical ganglia.

It will be remarked, too, that the paralysis of the ciliary muscle in diphtherial paralysis is generally on both sides, for diphtheria is a general disease. When, on the contrary, a patient comes for mydriasis and paralysis of the ciliary muscle on one side, we suspect his disease to be actually local, and not merely the local manifestation of some general condition. There is generally some paralysis, however slightly marked, of the other muscles supplied by the third nerve, or they become paralysed afterwards. Indeed (after making allowance for the fact that the pupils are in many people in good health of different sizes), a difference in size of the pupils is of great help to us in localising disease. Thus, in the early stage of tubercular meningitis we may know that a child has acute tuberculosis by other signs, and a change in the relative size of the pupils enables us to diagnose further that active disease is beginning or progressing in the head. But when in such a case the pupils are equally small or equally large, we cannot speak so decisively as to there being local disease at the base. Hence, until we get physiological symptoms, as an alteration in the size of the pupils or strabismus, the diagnosis of tubercular meningitis is sometimes not easy. Or, in other words, the diagnosis in the early stage is difficult. Dr. Wilks says that he never saw a case of tubercular meningitis in an adult which was not in the early stage taken for fever.

Again, the effect of diphtherial paralysis on sight showed how different was disorder of function of the organ of vision from derangement of its mechanism from real amaurosis, in which the true visual part—the optic nerve—was diseased. And the slight deafness in the case of the Medical man quoted was probably due to an analogous disorder of the mechanism of the organ of hearing by paralysis of the branches to the internal muscles of the ear, through the spheno-palatine or otic ganglia, rather than to an affection of the auditory nerve itself. So, too, as regards taste, the little change was most likely the result of some affection of the chorda tympani, than of the gustatory.

The next illustration was that of a family in which there were five children. The eldest, a girl, had had iritis in infancy. [Of Mr. Hutchinson's twenty-three cases of infantile iritis, five were males, sixteen females, and in two the sex was not known.] The three next had amaurosis. Of these three amaurotic children, the first and third (the second and fourth in the family), were paralysed. In one, a girl aged 15, there was partial hemiplegia; in the other, a boy aged 9, complete paraplegia. The amaurosis was, in all these cases, found to depend on bygone choroiditis, the irides being perfectly clear. That the choroiditis was syphilitic was rendered probable by the fact that the eldest showed marks of iritis in both eyes, and was, Dr. Hughlings Jackson thought, rendered certain by the fact that the two eldest of the amaurotic children had the form of teeth described by Mr. Hutchinson. Now of course, in the early stage, the exact diagnosis that the amaurosis was due to syphilitic choroiditis would have been of very great value for treatment, and even when the changes were settled into hopeless permanence, a knowledge that they were due to syphilis would have been of great value as a symptom, when the paralysis began, and it began *gradually, after* the amaurosis. For Dr. Hughlings Jackson thought it would be worth while to raise the question whether in such cases the paralysis might not be due to new syphilitic disease of the pia-mater, a membrane somewhat analogous to the choroid which had already suffered. At all events, it is clear that for scientific purposes the nature of the amaurosis in these affections of the nervous system ought to be made out. It was, in the case just mentioned, the local manifestation of a constitutional taint, and not a special symptom of disease of the nervous system, and it might help us to gain a better idea of the kind of tissue disease within the head. Then, too, in writing the clinical history of diseases of the nervous system, an ignorance of the conditions producing the amaurosis would lead us wrong. Amaurosis and paraplegia are not unfrequently found together, but the case of the boy in the family just mentioned

was the only one Dr. Hughlings Jackson had seen in which the amaurosis was due to choroiditis.

Next, apoplexy of the retina, which occurred so often in Bright's disease, but which Dr. Hughlings Jackson had once seen in a young and healthy man, was of great importance as a symptom as well as an eye disease. Dr. Jacob long ago alluded to this local apoplexy as a precursor of a cerebral one. and Dr. Hughlings Jackson related two instances in which apoplexy of the retina was preceded and followed by cerebral apoplexies. The retinal degeneration found in chronic Bright's disease ought, he fancied, to be studied by Physicians. It was of great value as demonstrating that we had something more to deal with than kidney disease. The eye was to be looked on as a field for the study of diseases of tissue as well as an organ for important functions.

There was, Dr. Hughlings Jackson said, another form of amaurosis in brain disease which he had now seen a good many times. The following were, speaking generally, the ophthalmoscopic appearances described from one case lately under his observation:—For about three times the size of the optic disc was a patch which obscured the natural disc. It was in parts white and in parts of a brick-red and spattered with blood. Generally no arteries could be seen in it, but the veins were bulky and were irregularly seen, as they seemed to struggle their way through the patch to the centre of the disc.

This kind of amaurosis had been found in tumours of the brain. Dr. Hughlings Jackson said he had seen it once in a case of apoplexy of the middle lobe in a young man, in apoplexy of the anterior lobe in a young woman, and in several cases of cerebral tumours in different positions. He had now under care a case in which, with paralysis of the third nerve on one side, and hemiplegia on the other, this condition was found; and a similar case had recently been pointed out to him by Mr. Ernest Hart. It was difficult to account for the production of this kind of amaurosis, but it had not, Dr. Hughlings Jackson thought, been yet much studied, at least in England, perhaps for this reason: that such cases come under the care of the Physician—to whom the amaurosis is but one symptom of severe brain disease—rather than of the ophthalmic Surgeon, who sees amaurosis as a disease of the eye rather than as a symptom of intra-cranial disease. It was, however, a symptom which deserved more study, and was to be found more often than was supposed towards the end of many acute intra-cranial affections. Dr. Jackson used the last vague expression advisedly, as the exact significance of the symptom had not been made out.

In nearly all cases of blindness attending cerebral disease there were ophthalmoscopic signs when the blindness had continued for some time. The condition generally found was white atrophy. It was very difficult, Dr. Hughlings Jackson said, to form any rational idea of the order of the symptoms in such cases, as, clinically, white atrophy was found in association with almost all kinds of disease of the nervous system, even with paraplegia of the lower limbs only. The most striking thing was that both eyes were nearly always affected. Dr. Hughlings Jackson could only remember a few cases in which the atrophy of the optic nerve was on one side. A few months ago a patient attended for giddiness, and just mentioned that for two years he had been blind of one eye, the right. He had had much advice, and did not come for the eye disease, but such a symptom was not to be lost. The optic disc was atrophied, the arteries and veins small, and he had a loud mitral murmur. He was assured that the blindness was due to the heart, and perhaps the giddiness too. He did not attend again, having had an attack of hemiplegia. Here, no doubt, the blindness was due to embolism.

In another case, Dr. Hughlings Jackson said he had seen blindness of one eye and hemiplegia, but he unfortunately has no note of any examination of the heart. A case like the following evidently belongs to quite a different category:—A young healthy patient is struck on the head, becomes very deaf, and has blindness of the right eye, paralysis of the right third and of the fourth nerves. The optic disc is white and glistening. Again, a young and healthy patient is struck on the head, has discharge of blood from the ears (but no deafness) and from the nose. He is left for dead. He gets rid of the severe symptoms, and comes for amaurosis of the right eye. In the first case, several orbital nerves being implicated, the lesion was clearly about the entrance of the nerve to the orbit, and it is extremely probable it was so in the other.

There is a peculiar defect of vision called hemiopia due to disease of one optic tract, which, of course, injures the sight of both eyes. Dr. Hughlings Jackson said that he had only seen two cases of this kind—one under the care of Dr. Brown-Séquard, and one when he was Clinical Assistant at Moorfields. In Dr. Brown-Séquard's case the patient had paralysis of one third nerve and partial paralysis of the other, and hemiplegia. As the patient squinted, he knew that he had lost the sight of half of each eye. But in the other case Dr. Jackson had seen, the patient did not know that he had lost half the field of vision of each eye, as the good half of one covered the lost half of the other. The patient under the care of Dr. Brown-Séquard died imbecile, and was, before his death, completely blind. The difference in the ophthalmoscopic signs in the period of half-blindness and of total blindness was most interesting. During the condition of hemiopia, the discs were quite normal; but when total blindness came on, both were quite white. It seemed, then, that during the hemiopia there was enough function to keep up the nutrition of the optic disc; but that when, from further disease (probably encroachment to the commissure, or to the opposite optic tract), the function being then entirely lost, the nerves atrophied.

But, as before said, the common form of amaurosis in brain disease is that in which are found the ophthalmoscopic appearances of white atrophy. It is well known that blindness is found associated with disease of almost any part of the brain; but sometimes with other symptoms it was of great help to locate disease. For instance, Dr. Hughlings Jackson had under his care a boy about 12 years of age, who has double amaurosis, a head twice its natural size, and some time after these symptoms loss of power in all his limbs. In such a case it seemed all but certain that there was a tumour of the vermiform process of the cerebellum pressing on the corpora quadrigemina, causing the blindness, and on the vena Galeni, causing hydrocephalus, the dropsy of the ventricles, just as pressure on the portal vein causes ascites. In another case a patient had double amaurosis and great fulness of the veins of the lids, so that the Surgeon, under whose care she was at first, called the disease varicocele of the orbits. She had also constantly pain which she described as being "in the eyes far back in the head." A tumour was found at the autopsy situated at the sella Turcica.

This last case, too, showed well the usual clinical history of the common form of amaurosis—viz., vomiting and intense pain in the head. The vomiting was "purposeless," and the pain was frequently at the back of the head. But this clinical history was common to cases of blindness, from the most diverse causes. For instance, in apoplexy of the middle lobe, tumours of the cerebellum, and tumours of the hemisphere.

In a few cases Dr. Hughlings Jackson fancied he had been able to be more precise as to the seat of the cause of the blindness.

He had under his care four patients who had had convulsions on the left side of the body and double amaurosis. Of course, it was in most cases difficult to be sure as to the exact range of the convulsions. But in one he had seen the patient in the attack, and in the others there was more or less paralysis on the side said to have been convulsed, confirming the patient's statement. The following was the best of the four cases:—

The first part of the notes of the case was taken at the first visit. Geo. —, aged 30, was admitted, uuder the care of Dr. Hughlings Jackson, 1862, for epilepsy. A few days before, whilst riding in an omnibus, he had a quivering in the left side of the tongue and left side of the cheek. At the same time the eyes "became dim and sparkled." This continued for seven minutes, and then he, having left the omnibus, found that the left arm was "pulled right up." Next he slipped down, and then became insensible, he thinks for about half an hour. He could tell nothing about his condition in the fit. In a little time he was able to walk from the police station, where he had been taken, to a cab.

Six weeks before he had had a little working in the left side of the mouth for about ten minutes. This was the only suspicious symptom until the attack for which he came.

His general health was good, except that he had pains in the limbs, worse at night. For this he had been attending Mr. Hutchinson, who had given him iodide of potassium. Two years ago he had had chancres, followed by buboes. He had, however, except the pains in the limbs, had no other suspicious symptoms.

It will be seen that the parts affected in the fit are those supplied by the right middle cerebral artery. This vessel supplies the corpus striatum, hence the affection of the limbs; both optic nerves, hence the affection of sight; and the hemi-

sphere, hence the insensibility following the two above-named symptoms in the paroxysm.

Some months afterwards Dr. Hughlings Jackson, not having seen the patient after the first visit, sought him out, and found him blind of both eyes and paralysed on the left side of the face and the left arm. The leg was scarcely affected. Indeed, the hemiplegia was just that which Dr. Hughlings Jackson pointed out in some cases of supposed embolism of the middle cerebral artery.

There was another little fact in this case which rendered the idea of the epilepsy and paralysis being in a definite arterial region more plausible, viz., that the sight of the *right* eye was completely lost, and that there was still partial vision of the other. The right optic tract which sends fibres to both retinæ is supplied by the right middle cerebral artery, so that the fibres going from this tract to the left eye would be damaged, and also the fibres going from it to the left optic tract would be so also. Again, the right optic nerve formed by parts of both optic tracts would be affected, as it also is supplied by the artery on the right side.

This holds good for another of the four cases, but in the remaining two the condition is exactly the opposite; the eye on the side of the convulsed limbs is the worse. This, of course, bears strongly against the hypothesis; but Dr. Hughlings Jackson thought there was enough plausibility to render it desirable to investigate further. He thought from several circumstances that epileptic seizures occurred in arterial regions of the brain, rather than in its physiological divisions—in regions of nutrition and not in regions of function; and he thought that the frequent occurrence of amaurosis in brain disease was to be explained by the fact that the optic nervous system from the corpora quadrigemina to the retinæ passed through several arterial regions, and that just as hemiplegic paralysis follows hemiplegic epileptiform seizures, so amaurosis follows temporary defects of sight in various kinds of epileptiform attacks.

Dr. Hughlings Jackson has already observed that whenever loss of speech occurs with hemiplegia the hemiplegia is on the right side. A note on this subject will be found in this journal for January 30, but Dr. Jackson has now had under observation about twenty-eight cases, and he still thinks it plausible, if not highly probable, that the cause is embolism of the left middle cerebral artery. He intends, then, to investigate the sequence of symptoms in the paroxysm, and the subsequent mental condition of a patient who has epileptiform convulsions on the left and right side respectively.

Some cases of epilepsy begin by alteration in smell. It is the so-called aura. If epilepsy occurs in arterial systems the spasm should in such cases begin in the range of the anterior cerebral artery; and, if limited to that arterial system, there would be no muscular spasm—no local spasm of one side at least—as this artery does not supply any part of the motor tract.

MIDDLESEX HOSPITAL.

CASE OF SLOWNESS OF PULSE FROM CARDIAC DISEASE (NARROWING OF MITRAL ORIFICE, WITH HYPERTROPHY AND DILATATION OF LEFT VENTRICLE?).

(Under the care of Dr. GREENHOW.)

A. P., aged 32, sawyer; admitted an out-patient March 20, 1863. Had been obliged to discontinue his occupation some time previously, on account of palpitation of the heart and of debility. Pulse 48, feeble and irregular; cardiac dulness increased to twice the normal extent, the extension being in all directions, but more especially towards the left side; perceptible bulging of chest in cardiac region; heart's action irregular; to right of left nipple downwards both sounds are heard almost free from murmur, but feeble; a loud diastolic blowing murmur heard to the left of, and a little below, the nipple; there is neither anasarca nor albuminuria. ℞ Tinct. ferri sesquichlor., mxx.; sp. ether chloric, mxv.; aq. menth, ʒj. M. ter die sum.

April 10.—Slight improvement in general health, but no change either in frequency or character of pulse; diastolic murmur continues; palpitation still troublesome. Emplastrum belladonnæ reg. cord.

(Patient remained under observation till the middle of May, but, though his general health decidedly improved, the frequency of pulse never varied, being always exactly 48 per minute.)

KING'S COLLEGE HOSPITAL.

CASE OF EXCISION OF THE KNEE-JOINT—SUBSEQUENT AMPUTATION—RECOVERY.

(Under the care of Mr. WOOD.)

A MAN, aged 28, of a highly-scrofulous constitution, as marked by enlarged glands and extensive scars about the neck and under the jaw, was admitted into King's College Hospital in August, 1862, for a swelling of the knee-joint, with sinuses below the patella communicating with bare bone at the internal tuberosity of the tibia, but not passing into the joint. The sinuses were laid open, and portions of the bone gouged out without any implication of the joint itself. Afterwards, by the aid of perfect rest and constitutional treatment, the swelling of the joint subsided, the sinuses closed, and he was discharged. He then went to his work, which was heavy and exposed. In April, 1863, he was again admitted with an aggravation of the swelling in the joint, and the formation of more sinuses. The joint was much swollen and very tender. It became evident, after some further treatment, that the joint was now entirely disorganised. On May 9, excision of the knee was performed, the sections of both femur and tibia being sufficiently satisfactory to render it probable that a recovery might ensue with the retention of the limb. The bones were in perfect coaptation, and kept throughout in a very good position and quite unmoved. As the wound healed, however, abscesses formed in the popliteal space, and about the sheaths of the hamstring tendons, which, though freely and carefully opened, burrowed and left sinuses in all directions. He continued to have very fair general health throughout. Finally, he was sent down to the Margate Hospital for sea-air and bathing, remaining there four months. The number of sinuses, however, continued to increase, and the ends of the bones continued moveable upon each other. In February last he was again admitted into King's College Hospital, and at his own request and desire amputation was performed. This was effected in the lower third of the thigh by oblique flaps, so formed as to avoid the diseased jelly-like mass about the sinuses, and to give the best possible drainage to the wound. The flaps united entirely by adhesion, except around the ligatures. These came away entirely in about eighteen days, the femoral ligature being the last to separate. The result three weeks after the operation was a very good square stump, with the cicatrix placed well behind the end of the cut femur, and with no tenderness on pressing firmly over the end of the femur. The specimen showed good broad and level surfaces of apposition at the cut ends of the tibia and femur, with weak fibrous connection over the greater part of their extent; numerous sinuses about the lower and back part of the joint extending in all directions; most of them communicated with a portion of diseased bone upon the projecting portion of the inner condyle left after excision. In this was an opening passing through the condyle, and connected with a sinus passing along the posterior surface of the femur as high as the incision made in amputation. The top of this sinus was left in the flap, but since the operation it has entirely dried up. The cancelli of the diseased bone found at each operation were filled by solid lymph, and presented the yellow, bloodless appearance and friable bone-texture of this species of caries. The synovial textures around the great tendons were also thickened, gelatinous, and suppurating. The muscles of the calf were in a state of fatty degeneration.

MIGRATION OF THE FANG OF A TOOTH.—M. Delestre related to the Paris Medical Society the case of a lady upon whose palate, opposite the first large molar (which was missing), and at about a centimetre from the edge of the gum, was observed a small rounded, blackened loss of substance, which seemed as if it had been punched out. Various Surgeons who had seen it had regarded it as caries of the maxillary bone, and treatment had been employed in vain. M. Delestre found, on examination with a probe, that there was not the crepitation produced by contact with caries, and that a certain amount of mobility existed. Passing in a delicate forceps, to his great surprise, he withdrew the fang of a tooth, about a centimetre in size, which, proceeding from the first molar, had evidently proceeded through the substance of the maxillary bone, and become placed perpendicularly to the palate. The patient remained entirely well.—*Union Méd.*, No. 142.

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Medical Times and Gazette.

SATURDAY, APRIL 30.

MEDICAL MEN IN PARLIAMENT.

The Imperial Parliament very rarely dies a natural death; its appointed term of existence—seven years—is almost always cut short by some political convulsion; and a little time ago there appeared to be considerable danger that the present Parliament would be brought to a sudden and untimely end by one of those fortuitous concurrences of atoms on the wrong side of the House of Commons which lead falling Ministers to "appeal to the country." Immediate danger seems, however, to have passed away, and possibly Parliament may make a good end, and die in its bed. Even that rare occurrence, however, is so far from being a remote event that the air already begins to grow thick with the sounds of coming contests for the honour of seats in a new House of Commons. Aspiring politicians, rising barristers, ambitious men, and "pure patriots" of all shades of politics, are beginning to bestir themselves, and to look out for chances of obtaining the honour and glory of the M.P.; and even members of our quiet Profession are spoken of as likely to come forward and solicit the sweet voices of the people. And why should they not? Are there any reasons why our Profession should not be represented in the national legislature? It would be easy to give plenty of excellent reasons why it should be. Sanitary Medicine would then have efficient and recognised exponents in the House, and all measures for the care of the public health intelligent and authoritative critics; the Medical services would have advocates of Professional experience and knowledge, and the Profession at large would be directly supported and defended. Great gain would undoubtedly accrue to the general weal, and not improbably some benefit to ourselves from our having a direct voice in the legislation of the country. What, then, can be said against it? We remember that when once, in our hot-headed days, we had warmly engaged in a political discussion, we were "advised" by an eminent barrister present, himself an ardent politician, that "Medical men knew no politics." Officers of the army and navy have, in times of peace, at least, plenty of leisure to devote to politics, and the mimic strife of party seems congenial to their professions. The clergy, even, generally take their full share in politics, and though they cannot sit in the House of Commons, it is said that to be a warm and decided partisan has not a little helped in gaining promotion in the Church. Perhaps, however, this has passed away, and we may hope that now political activity has, with "inability to construe the Greek Testament," and some other mundane qualifications, ceased to be an important aid to ecclesiastical preferment. For the aspiring barrister politics and a party are essentials; the only road to the highest honours of his profession lies through the House of Commons; to reach them he must perforce engage in the strife and tumult of St. Stephen's. But our duties are with the sick and the suffering; our paths lead to the quiet and calm of the sick chamber; politics are uncongenial to Medical men, and can bring no professional advancement, gain, or honour to any one of us. It may be said, and very truly, that a man may be a most useful member of Parliament without being a politician; but then he must, to gain any weight with the House, devote to it an amount of time and labour that would be to most Medical men professional ruin. To avoid the latter he must hold an entirely exceptional position in the Profession. He must have made such a fortune as renders him independent of practice, and yet retain health and energy sufficient for the wear and tear of Parliamentary life; or have inherited such a fortune after years of practice—for we want no representative who is merely nominally a Medical man. Or he must have some special kind of practice that leaves him at liberty many hours of the day, and that during the busiest time of the year. Or, again, he must hold some public Medical appointment which frees him from private practice; or, finally, he must be known to have made sanitary science or State medicine his special study, and be willing to make large sacrifices of Professional success for the public good. How very few men can be found who can be placed in any of these categories we leave others to calculate. Still, there is no doubt that fit candidates can be found—independent men, of experience, knowledge, and learning, of some eminence in the Profession, and men who will devote themselves, not to party, but to mankind. But where are the constituencies that will elect them? How are the "sweet voices" to be gained by a man who is no politician, and pledges himself to no party? Abroad, as in Germany and Italy, Virchow and others are influential in the Parliaments of their countries; but they are there as party-politicians, and we have no wish to see their example followed here. Our more happy country does not require men of scientific and liberal education to fight the battle of liberty. We heartily desire to see Medical men in Parliament; we believe their presence there would be a great gain to the nation, and a great advantage to the Profession; but we do not wish to see them as politicians. Their platform, to borrow an American expression, must be science and knowledge, with moderately liberal politics, but no extreme views of any kind. Let men of fitting standing in the Profession, and holding such views as these, come forward, and they shall have all the support we can give them, and they would, we believe, be warmly supported by the whole Profession; but we confess that unless they are taken by the hand by some enlightened layman with predominating influence in some borough, or until we get a Reform Bill giving us what have been contemptuously termed "fancy franchises" and "constituencies," we should have but small hopes of their success.

We have heard of two members of our Profession as likely to present themselves at an early period as candidates for seats in Parliament—Dr. Lankester and Dr. B. W. Richardson; we have heard them both spoken of as possible candidates for the seat which, it is rumoured, Sir Morton Peto will shortly vacate. They are both well-known men of science; the one has been a special, early, and persevering teacher of hygiene, the other holds an important public appointment; both would earnestly and honestly employ their great abilities and high scientific acquirements for the advantage of the Profession and the good of the public. We hope that such men would not woo in vain, but we also earnestly hope that they will not both woo the same love.

A CONTINENTAL VIEW OF THE "FEE QUESTION."

We have several times of late had occasion to bring the question of Medical fees and their recovery under consideration in this journal. The question is not an insular one. It concerns the Profession wherever its members are established in civilised countries. Human nature is everywhere the same, and gratitude for benefits received is exhibited just as rarely and just as frequently under one sky as under another. "My dear Doctor," who is sincerely welcomed and willingly fee'd

at the time that his services are most urgently needed, is very apt to be received with coolness when his patient has recovered, and a demand is made, or about to be made, upon the purse. The history of the "ten cleansed" and the one thankful finds its parallel every day and everywhere. Our Continental *confrères* have thus the same difficulties to contend with as ourselves. Devoted to a profession, humane, self-denying, beneficent, divine, they, like ourselves, must live by it respectably; and, while maintaining this right, meet ingratitude with the dignity becoming those who walk—albeit, at an infinite distance—in the very footsteps of Him who "went about doing good" and "healing the sick." How far this dignity is compromised by Medical men rushing to a law court for the recovery of their just remuneration, and what remedy for an acknowledged evil might be adopted in the opinion of some of our Gallic neighbours, may be gathered from the report of the General Commission of the "Association des Médécins du Rhône" recently published in *L'Union Médicale*. The members of the Commission were MM. Diday, J. Bonnet, Bachelet, and Rougier; the last is the legal adviser of the Association; the other names are well known to all readers of French Medical literature. The two questions proposed to them were:—1. By what means may the fees of Medical men be placed on a level with the dignity and the necessities of the Profession? and 2. How the general Commission of the Association ought to interfere in this respect? It was felt that, while for many years past the price of all the necessaries of life had risen, the traditional fees of the Profession had remained stationary; and hence the first proposition they undertook to consider was the establishment of a fixed tariff of charges to be calculated according to the importance of the service rendered and the position of the patient. As it happened, such a tariff would have been inoperative, because illegal; the Commission, however, do not regard this legal impediment with regret; for, besides being inefficacious, they consider that it would have been contrary to the true interests of the Profession. "The palm from the 'concours,' brilliancy of talent, authority the result of long practice, or studies of a special character—in fact, a variety of circumstances, sometimes even chance circumstances, inspire the public with exceptional confidence. Will you compel," they say, "those who are its object to bow beneath the yoke of a tariff? Are there not between such persons and their patients relations that escape the conditions of customary remuneration? Will you make an exception? But, then, for the benefit of whom? What authority shall determine the persons to be comprised by it? And, if there are exceptions which must be left to the determination of those who shall consider that they ought to apply to themselves, what becomes of the force of the regulation? Will the public sanction your decision?" "With patients who appreciate your devotion, no tariff is necessary; such as these know that the fees they pay do not free them from their obligation to you, and their gratitude survives the remuneration." And as to the other class, it is held that "they would deny your capability of appreciating their situation and of determining the extent of their obligation." The second proposition considered was to invite the members of the Association to augment their present rate of fees by about a fourth; but it was felt that similar objections applied to this as to the first proposition. Putting aside, then, all propositions in which a definite tariff of fees is involved, the Commission proceed to state the positive results they have arrived at. "The first result," they say, "to obtain is that no member of the Medical body should compromise his dignity, his interest, and that of his brethren, by practising Medicine *at reduced prices*." "When your benevolence is appealed to, a free field is open for it, and every one knows that it is largely exercised. . . . But when you are not called to relieve misfortune, you have a certain right to be remunerated for your services according to their extent and the position in life of the sick. If by a lamentable carelessness a Medical man neglect to obtain this remuneration from those who can give it; if from other less excusable motives he contents himself voluntarily with fees less than those which are generally demanded, he not only does a wrong to himself, but discredits the practice of the Profession in general—he depreciates the services of his brethren, and contributes to maintain their estimation at the level of a lamentable inferiority." . . . "It is better to refuse all remuneration for the past, and even all service for the future, than to compromise equity and propriety by the acceptance of beggarly fees." A further result of the deliberations of the Commission is the proposal that the Association should constitute itself a quasi court of equity in all questions of remuneration which may arise between its members and their patients, and that no appeal to a public court of law should be made except under its sanction, and until all the chances of a friendly solution have been tried in vain. The Commission anticipate that thus by degrees there would arise such a series of precedents as will guide the members in the exercise of their Profession, and enlighten the public upon the real value of the services it renders. They say:—

"We cannot conceal from ourselves the fact that in general the public tribunals only experience a painful impression when a Medical man brings before them a claim for his fees. Do not be surprised or hurt at this. An assimilation between the two liberal professions *par excellence*, Medicine and the bar, is very natural; and if the Chancellor of Aguesseau has been able to say of the Order of Advocates that it is as ancient as the magistracy, as noble as virtue itself, as necessary as justice, what might not be said of Medicine, the devotion of which had its commencement with the sufferings of humanity, only to find its end with their termination?"

Let our readers recall for a moment the views upon this important, but unpleasant, subject which we have over and over again expressed, and they will not be surprised that we should simply leave the opinions thus propounded by the Association des Médécins du Rhone to the honest judgment of the Profession in England. We have amongst ourselves an association whose boast it is that it embraces amongst its members not only the *élite* of the Profession, but its hard workers in Hospitals, prisons, Poor-law unions, and private practice among persons of all classes in every county and every town through the length and breadth of our country. We say, then, to the British Medical Association, "Go and do likewise!"

THE ARMY MEDICAL SERVICE.

The systematic way in which all questions affecting the interests of the Medical Profession are ignored by Government bodies is truly surprising. In our last number we recorded a glaring instance of this. Mr. Bazley asked a question of Sir Charles Wood about the number of candidates which were appearing for the Indian Army Medical Department. An answer to this disagreeable question was ingeniously evaded by a quibble. Since the amalgamation of the Indian with H.M.'s army no separate examinations have been held for the Medical Department of the former. We presume that anything and everything is fair in politics as well as in war. Sir C. Wood knew well enough what was meant; he and his colleagues understood only too well what a damaging admission would have to be made by a frank answer; and he was too wary a soldier not to fall behind the cover of a quibble. Whenever an honourable Member of the House of Commons does venture upon a question of Professional interest—which is seldom enough the case, Heaven knows—it is ten to one that he is himself sufficiently acquainted with it to serve any useful purpose. The War Office and Horse Guards have it all their own way; and nothing short of an absence of any candidates at all will suffice to convince them that *that* way is not pleasing to the Medical Profession. The shifts and expedients to which they have been driven are so many confessions of the weakness of their cause. After fishing in vain in London preserves, they contented themselves with the few specimens of average fish they could obtain in Ireland. That failing, they betook themselves to the millstreams; and as they could not have

salmon they contented themselves with sprats. The last haul did not sink the ship, for it amounted to seven only.

We will supply Mr. Bazley with an answer to his question. For about two years the number of candidates for the so-called *competitive* examinations have invariably been less than the number of vacancies, and of late the supply has been by driblets only—a little in excess, certainly, of the resignations. It is notorious that the Army Medical Department is extremely unpopular, and the Indian part of it still more so. We receive, in common with other Medical journals, a goodly array of letters from Medical officers, and they are wonderfully alike. No one can miss their meaning, and it is the same with what we hear verbally from the same sources.

And now it is with regret that we direct our readers' attention to the fact that advertisements have appeared for Acting Assistant-Surgeons for temporary service in the United Kingdom. It is with a feeling of indignation that we record these expedients; but we fancy this must be the last, for it surpasses the others in folly and injustice. To Dr. Gibson it must be humiliating to have to advertise, as it were, the great unpopularity of the Department over which he presides; to the soldier it is wrong, in that our troops will now be committed to the tender mercies of men whose chief qualification will be their having reached maturity without having secured any success; to the Government it is a scandal that, when every avenue to the public service by competition is choked with candidates, the Army Medical Department should be obliged to *abolish all* competitive examinations; and to the Medical officer it is a hardship and injustice that he should have to undergo the banishment from home which this threatens.

As soon as the authorities meet the evils which undeniably exist in the Medical Department in a fair and candid manner there will be no need for all these shifts, and we hope that the Director-General and every one in authority will urge upon them the only course which can bring success. Every day the task before them increases in difficulty.

THE WEEK.

ILLNESS OF DR. T. K. CHAMBERS.

The illness of Dr. T. K. Chambers, Physician to St. Mary's Hospital, has excited so much sympathy in the Profession, that we shall not be violating the reserve with which the misfortunes of less conspicuous men should be treated, if we record that which is well known to every member of the Profession in London. It seems that he had suffered for exactly ten days from popliteal aneurism; on the 11th day, the 27th April, the aneurism burst; the leg became rapidly distended with extravasated blood, spite of the compression kept up on the artery by a relay of Medical students; the limb was amputated at 6 p.m. by Mr. Paget, in the presence of Dr. Acland, Dr. Gull, Mr. Cæsar Hawkins, and Mr. Arnott. Mr. Potter, of St. George's Hospital, gave chloroform. We are glad to say that on Thursday morning Dr. Chambers was going on favourably.

TRINITY COLLEGE, DUBLIN, *v.* THE KING AND QUEEN'S COLLEGE OF PHYSICIANS OF IRELAND—DECISION OF THE MASTER OF THE ROLLS.

It will be remembered that in this case a petition was presented by Trinity College for the purpose of obtaining a decree declaring that the Irish College of Physicians are not entitled to confer the degree of Doctor of Medicine upon their Licentiates. The case was argued last term, and a full report of the pleadings on either side appeared in this journal. The Master of the Rolls, after taking full time to consider the case, has now delivered judgment. We must confess that we greet his decision with satisfaction. To give a non-academical corporation the power of conferring an academical degree by the mere act of examining for their licence would be to introduce a fresh element of confusion into the ranks of the Profession, and to increase the heartburnings and jealousies amongst the existing examining bodies. The Members and Fellows of Colleges of Physicians are entitled by long usage and courtesy to the style and title of "Doctor," but only Universities and the Archbishop of Canterbury can give a man a right to use the magical affix of M.D.

The following is a condensed report of the judgment:—

"The Master of the Rolls now gave judgment, granting the prayer of the petition, and holding that, under the true construction of the charter of the College of Physicians of 1692, its licentiates had no authority to use the title of Medical Doctor unless the same were conferred upon them by one of the Universities. His Honour went at great length into the history of the College of Physicians, and in conclusion said that it was surprising that a body consisting of such eminent men should allow itself to be so misled as it had been. Whilst he only expressed the general opinion that a licentiate of the College of Physicians stood as high as any gentleman holding the degree of Doctor of Medicine from a University, he would say that if the heads of the College had read the charter of 1692 in its simplest sense, and in the absence of legal interpretation, they would have come to the conclusion that they had no right to confer degrees. By a singular accident he had this morning received from her Majesty's Stationery Office, London, a copy of the Medical Register for the year 1864, compiled by the General Medical Council, and which contained the names and designations of all the Medical Practitioners of the United Kingdom. In this document he found the names of the witnesses who had been examined on the part of the College of Physicians, some with the designation 'Doctor,' and others with that of 'Bachelor' of the University of Dublin, but only, so far as the College of Physicians was concerned, with that of 'Licentiate.' He was called upon, in fact, by the respondents in the present suit, to set aside this public document, compiled, as it had been, under the directions of an Act of Parliament; but the circumstances of the case would not warrant him in doing so, and he was therefore obliged to declare that nearly nineteen out of every twenty gentlemen of the Medical Profession in Ireland, who were licentiates of the College of Physicians, were not entitled to add 'M.D.' to their names. If he were wrong in this judgment, there was ample opportunity of setting him right; but his present impression was that his opinion was in accordance with the true construction of the charter which had been relied upon."

REPORTERS AT THE GENERAL COUNCIL.

The General Council of Medical Education and Registration have resolved that reporters be admitted to attend their proceedings. We are sorry for it. The proceedings of the Council have not been very fruitful in results as yet, and now that the members, instead of confining their attention to the merits of the matter before them, may have their thoughts directed to the effect of their speeches upon the public, we have less hope than before. Through the crowded state of our columns this week, we regret that we are obliged to postpone our report both of the minutes and of their deliberations.

PREVALENCE OF SKIN AFFECTION IN THE METROPOLIS.

The number of cases of anomalous skin eruption, at present, in some districts of London is so great as almost to constitute an epidemic. In some cases the eruption resembles roseola, in others lichen urticatus, in others it puts on a rubeoloid character. The symptoms are red patches, especially on the face and extremities, mixed with pimples, itching and tingling, some headache, but no sore throat, and no catarrhal symptoms. Many experienced Practitioners say that they have been puzzled to give a name off-hand to the eruption.

PARLIAMENTARY.

In the House of Commons, on Thursday, April 21, in reply to a question put by Mr. Kinnaird, the Chancellor of the Exchequer stated the proceedings which had given rise to what he termed "the absurd rumours" as to the reasons

of the curtailment of the visit of General Garibaldi, declaring the "ridiculous stories" which had been circulated on the subject to be entirely destitute of any shadow of foundation.

The Select Committee on the Government Annuities Bill having been nominated, Sir M. Farquhar moved that the committee have power to send for persons, papers, and records.

The Chancellor of the Exchequer opposed this motion, urging a variety of objections to taking evidence before a committee upon such a measure, for which the Government was responsible, an inquiry that would throw over the bill till another session.

A sharp debate followed, in the course of which

Lord Palmerston observed that the real question was whether the bill should be entirely thrown over, for that would be the effect of the motion if it were carried. It would be much fairer to move its rejection at once.

Upon a division the motion was negatived by 127 to 104.

In the House of Lords on Friday, April 22, the Earl of Ellenborough, in introducing a bill on the subject of remission of death sentences, said that recent proceedings had shown the absolute necessity of a change in the present practice at the earliest possible period. It was most desirable that the greatest weight and authority should be given to decisions in regard to sentences of death, whatever they might be. It was not right that the life of a man should depend on the particular views or temperament of the Home Secretary, and that the whole responsibility of deciding should be cast upon that functionary alone. Looking back to his own experience, dating now about thirty-five years ago, of the ancient course of proceeding, he recollected when the Recorder of the City of London used to present a report on capital sentences for the decision of the Government. In that case all the members of the Government, with the addition of the Chief Justice of the Queen's Bench, were summoned to attend the Sovereign. The King was present at these meetings, and took part in the discussions which arose. He knew that His Majesty George IV. regarded this duty as one of the most important which he had to discharge. He had no recollection that in those days, under any circumstances, distrust was manifested concerning the decisions arrived at. On the contrary, they seemed to give general satisfaction. That course of proceeding continued until the accession of her present Majesty, when it was deemed expedient, and he did not dispute the expediency, to render it no longer necessary for a youthful Queen to be present at the consideration of such questions. He remembered very well, however, that the Duke of Wellington, while consenting to the alteration, lamented that at the very commencement of a female reign it should be necessary to change the course of proceeding which had continued for so many years. The penalty of death no longer attached to certain crimes which it was then held improper to bring under the notice of a youthful Queen; and that reason for the new system had therefore ceased to exist. At the same time, he did not propose to place any additional burden on Her Majesty; but, recollecting the value of the solemn proceeding of the Sovereign in Council with regard to decisions or sentences of death, he thought it desirable that it should be revived, with the condition that the presence of the Sovereign should not be insisted upon. If the principle of the Bill met with approval, he trusted the Government would adopt it, for he felt it was more appropriate that the responsibility of such a measure should rest on them than on an individual peer. If on the other hand, the Government would not accept the bill, he hoped that at the earliest opportunity they would submit some proposal of their own on the subject, better than that he now tendered. He was satisfied that the practice of the law ought to be amended, so that the utmost authority and weight should attach to decisions in regard to capital sentences, and that the whole responsibility should not be thrown on the Home Secretary alone. Unless the country was made to understand that entire confidence could be placed in the decisions on these questions, there would be some danger of our being forced to abandon a punishment which he believed to be necessary in the interests of society. (Hear, hear.)

The bill was then read a first time.

Lord Derby moved that it should be an instruction to the Committee on every Metropolitan Railway Bill to require the several companies to provide cheap transit to and from London, every morning and evening, for the labouring classes. He only wished to lay down a principle for the guidance of the Committees, the details of time and distance to be determined by the circumstances of each case.

After a short discussion the motion was agreed to.

In the House of Commons, Sir C. Wood, in answer to a question by Lord Stanley, said that no despatches had been received from India on the subject of the order prohibiting the native custom of burning the dead on the banks of the Hooghly, and the only information he possessed was derived from private sources. The cholera had been exceedingly prevalent at Calcutta lately, and the greatest possible alarm had been created there in consequence. The question was therefore taken into consideration of what was to be done to check the spread of the disease, and an order was issued to prevent the throwing of dead bodies into the Hooghly. Anything more disgusting than the sight of the dead bodies floating up and down that river could hardly be imagined, and it was thought most desirable to prevent that practice. With regard to the burning of dead bodies, he did not believe that any order on that subject had been issued; but there was, he thought, a proposal that means should be provided for the burning of dead bodies at a short distance from Calcutta. He had reason, however, to know that, if the objections to it were as strong as was represented by some persons, that proposal would not be persevered with.

In the House of Commons on Tuesday, April 26, Lord R. Montague moved for a Select Committee to inquire into any plans for dealing with the sewage of the metropolis and other large towns, with a view to its utilisation for agricultural purposes.

Sir J. Paxton was of opinion that the inquiry would be of no use.

After a few remarks by Mr. J. Miller and Mr. Caird, the motion was agreed to.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE XIII.—MARCH 1.

The Anatomy of the Chimpanzee continued.—The larynx of the chimpanzee has all the essential parts of the same organ in man, every cartilage, ligament, and muscle being represented, with only differences of detail in form and proportion. There is, however, connected with it a very singular exaggeration of a structure existing in man, the so-called *sacculus* of the larynx. This undergoes on the left side a most remarkable enlargement in the adult chimpanzee, forming a pouch which extends beneath the sterno-thyroid and sterno-hyoid muscles, into the anterior triangle of the neck, and even projecting into the axilla. The function of this great air-sac is entirely a matter of speculation at present.

The chimpanzee has the same dental formula as man—viz.,

$$i\frac{2-2}{2-2}, c\frac{1-1}{1-1}, p\frac{2-2}{2-2}, m\frac{3-3}{3-3} = 32$$

The teeth agree with those of man in some of their most characteristic features. Of the incisors, the median pair in the upper jaw, and the outer pair in the lower jaw are the largest; the upper premolars have two cusps, of which the external is the most developed; the lower premolars have two cusps united by a transverse ridge; both the upper and lower molars have the same pattern as those of man, but in a marked and exaggerated form. The teeth also present the following differences from those of the human subject:—The arrangement of the alveolar arch in both jaws vastly exaggerates the peculiarity found in the lower races of man, the sides being quite parallel, or even slightly concave externally; the absolute size of the teeth is greater in the chimpanzee than in man; the upper canine especially is much larger, particularly in the male sex, where it is prominent and pointed as in the carnivora, though only used as a weapon of offence and defence, not in securing prey. The lower canine, though smaller, projects above the others of the series, and its axis is obviously anterior to the upper one, and there is an interspace to receive it between the latter and the contiguous incisor. The anterior premolars of the lower jaw present a certain declivity of the front edge, which is an approach to the very peculiar form of this tooth in the lower apes. The premolars of the upper jaw are implanted by three, those of the lower jaw by two fangs, thus presenting a considerable difference in this respect from the

human subject. In their mode of wear the teeth present peculiarities observed in the lower races of men, the incisors bite directly one against the other, and become ground to a flat surface, and the outer edge of the lower, and the inner edge of the upper molars first show signs of attrition.

In the deciduous dentition we have the essential human characters repeated, with remarkable differences of detail. The first canines are proportionally small, projecting but slightly above the remainder of the series. The pattern of the milk molars of the upper jaw is as in man; in the lower jaw, however, it differs considerably, the posterior tooth especially having only four cusps instead of five. In the order of succession there is a difference from that observed in man. The great canine, appearing to require longer elaboration, does not come into place until after the molar series is complete.

The soft palate has a well-developed uvula. The tongue is very like that of man, except that the circumvallate papillæ, instead of being arranged like a V, are like a T, with the top turned forwards. The salivary carunole beneath the tongue in the middle line is lengthened out to a point, presenting an indication of the greatly-developed "sublingua" of the lower apes and lemurs. The stomach and cæcum closely resemble those of man in form, and there is a long vermiform appendage. The great vessels arise from the aorta in precisely the same manner as in man.

Of the brain a remarkably excellent account has lately been published by Mr. Marshall, the statements in which Professor Huxley had himself been able to verify in a recent specimen. The largest brain of an adult chimpanzee, judging from the size of the interior of the cranium, is less than half that of the smallest normal human subject, and as shown by casts that were exhibited, very much less than half that of the average Australian or African brain. In Mr. Marshall's young chimpanzee the brain weighed 14 oz.; that of a European child at a corresponding period of dentition being 38 oz. The form of the brain differs from that of man, in being less convex in the parietal region, but more particularly in the great diminution of the anterior portion, which is cut away laterally so as to bring it to a point in front, and greatly excavated beneath in the supra-orbital region. The general divisions of the brain into segments are the same as those before given in the lecture on human anatomy. The olfactory segment bears a striking resemblance to that of man, being thin and flat, and received into a groove on the under surface of the frontal lobe. The cerebral hemispheres agree with those of man in the manner in which they cover all the other parts, so that on looking at their upper surface no portion of the olfactory lobes or cerebellum are to be seen. According to Mr. Marshall, the amount of overlap of the cerebrum behind the cerebellum is greater proportionately to its length than in the average human brain. If we adopt the old division of the hemisphere into three lobes, anterior, middle, and posterior, we find them all represented in the chimpanzee's brain, and agreeing with the definitions given of them in human anatomy. The five lobes of the outer surface, as defined by Gratiolet, can also be distinctly traced. The central lobe, or island of Reil, though more simple, has the same form and is sulcated on the same fundamental pattern as in man. The other lobes present all the sulci and gyri previously described in man, with the following differences of detail:—The principal character by which the Bosjeswoman's brain was seen to differ from the European's is here greatly exaggerated; the gyri are much larger in proportion to the brain, are less complex or subdivided, and present more bilateral symmetry. The fissure of Sylvius is less inclined; the fissure of Rolando is placed further forward than in man; the insula is no longer completely covered by the temporal lobe in front; of the annectent gyri only the second, third, and fourth appear on the surface; the first is folded upon itself, giving rise to the external perpendicular fissure, a peculiarly simian character. On the inner face of the hemisphere every gyrus and sulcus seen on the human brain can be traced, the principal differences being the smaller mass of brain lying above the corpus callosum and the forward inclination of the internal perpendicular fissure.

In the interior anatomy of the brain may first be noticed the smaller proportionate volume of the corpus callosum, although it has all the same parts and general form as in man. The septum lucidum is exceedingly thick, and the precommisural fibres well developed. The lateral ventricles are, in proportion to the size of the brain, as large or larger than in man, and have the same general form. The anterior cornu sends no prolongation into the olfactory lobe. The descending cornu contains the hippocampus major, which frequently shows digitations upon its terminal part; the posterior cornu has the same form and extends as far back as in man, and contains within it a well-developed hippocampus minor and collateral eminence, having the same relation to fissures on the surface as in man, as can be most readily demonstrated by transverse sections. No hard bodies have as yet been found in the Pineal gland. There are two distinct corpora albicantia. The cerebellum is singularly like that of man, but is larger in proportion to the cerebral hemispheres; in Mr. Marshall's chimpanzee it was as 1 to $5\frac{3}{4}$, in man as 1 to $8\frac{1}{3}$. Both the width of the cerebellum, and of the nerves coming off from the base of the brain are proportionately greater than in man. Finally, the entire absence of these intervals between the pons and the anterior pyramids called "corpora trapezoidea," found in the lower mammals, may be noted.

FROM ABROAD—SENSATIONAL SURGERY IN FRANCE—ARTERIAL ULCERATION FROM ABSCESS.

A KIND of "sensational" Surgery seems to be becoming prevalent in France, which we hope will not find imitators among ourselves. Recently (*Med. Times*, March 12) we narrated the dramatic incident of four or five Medical students succeeding each other in performing insufflation by the mouth after tracheotomy in a case of diphtheria. So laudable was the procedure deemed that the Director of Hospitals tendered its performers his formal thanks, and said that he was certain that they would never want imitators. Now, another story is going the round of the papers, amidst salvos of applause. A man at St. Quentin having been seriously bitten by a dog, was taken to the house of Dr. Gobet, who, to the justifiable astonishment of the patient's companions, at once applied his mouth to the wound, and began sucking like an infant at the breast, only leaving off in order to breathe; after dashing away the blood which befouled his lips and face, he again renewed the process. Next, having cauterised the wound, he thus addressed his patient:—"Depart, my friend, with your mind at ease as regards the consequences of the bite. Whatever may be the condition of the dog which has bitten you, you have nothing to fear. All danger is at an end, for I have removed whatever impurity may have lain in the wound. Once more, you have nothing to fear!"

M. Dolbeau related an interesting case to the Society of Surgery. A young lady, 16 years of age, habitually of good health, had an abscess on one of the cervical glands, which, having been opened, continued to discharge just like an ordinary abscess, when, about the seventeenth day, large quantities of blood began to issue forth. When M. Dolbeau was called in to her she had lost a large quantity, and seemed moribund. Having made a long incision in the course of the sterno-cleido-mastoid muscle, he turned out an immense accumulation of coagula, and found an open artery, which he took for the thyroidean branch of the carotid, and endeavoured to secure it. This was impossible, on account of its extreme friability, and he therefore determined to tie the external carotid, which, amidst the inflamed tissues, was a work of some twenty minutes, during which he every instant expected to see his patient expire. The vessel once secured, however, all hæmorrhage ceased, and the girl rapidly recovered, no secondary hæmorrhage ensuing. M. Chassaignac observed that this case reminded him of an

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instance of an abscess which supervened upon an amygdalitis in a man from eighteen to twenty years of age, the spontaneous opening of which was followed by a hæmorrhage, which proved rapidly fatal. Now, if in this case, in place of its being left to nature, a Surgeon had intervened, the responsibility of the accident would have been laid to his account. Cases of ulceration of arteries through the agency of purulent collections are less rare than is supposed. M. Morel-Larallée met with such in a case of abscess of the axilla which he had opened. At the end of three months a copious and obstinate hæmorrhage occurred, whether arterial or venous could not be determined. It, however, stopped after a while, and the patient recovered. M. Trelat could not see how the Surgeon could be rendered responsible in these cases, as the hæmorrhage does not usually occur for a more or less long time after the opening of the abscess. He has met with two such cases. In the one, a woman, the subject of suprahyoidean abscess, was seized a month after this had been opened with hæmorrhage, to which she succumbed; and in the other, a young man also died from hæmorrhage, which came on a fortnight after a deep-seated abscess of the thigh had been opened. M. Morel Lavallée observed that a regard for Surgical responsibility required that it should be well known and admitted that these hæmorrhages by no means only come on after a long period, but may occur at any time after the opening of the abscess. M. Giraldès pointed out that several cases like that of M. Dolbeau are related by Hodgson. These abscesses of the neck usually occur in children and young persons after scarlatina angina, which induces ramollissement and suppuration of the glands, the vessels of the vicinity sometimes participating in the change. M. Marjolin, in corroboration of what had fallen from M. Giraldès, observed that it is by no means rare to observe in children hæmorrhage in the vicinity of abscesses of the neck as well as in the vicinity of the axilla and groin; and such hæmorrhage is not only found at a distant period, but may occur at the time of opening the abscess, whether this be spontaneous or practised by the Surgeon. Sometimes an enormous quantity of coagula is discharged with the pus, and the bleeding may recur again and again with great obstinacy, resisting all means for arresting it. It is of the highest importance that this should be known in relation to Surgical responsibility before the tribunals. M. Bauchet saw in M. Velpeau's practice an arterial ulceration produced by an enormous abscess at the upper part of the thigh. Nothing unusual ensued on the opening of the abscess, but next day an alarming hæmorrhage occurred, rendering the ligature of the femoral artery necessary.

LEPROSY IN INDIA.

It will be in the recollection of many of our readers that attempts have lately been made, both in Germany and England, to obtain extensive and reliable information as to the pathological history, geographical distribution, and causation of leprosy (Lepra Arabum, Elephantiasis Græcorum). With this end in view, Professor R. Virchow, of Berlin, appealed in 1862 to Physicians, historians, and travellers to afford him materials for composing a history of leprosy. A portion of the information he obtained has appeared in the eighteenth volume of Virchow's *Archives*. But, as he states, there are still important gaps to be filled up, even in the history of leprosy in Europe, and accordingly in April of last year he issued a fresh request for information on the subject. In his letter dated April 18 he states that he has obtained scarcely any details with regard to the state of lazarettos in Austria, and that next to nothing is known in reference to the history of the disease in Westphalia, Hesse, Hanover, Oldenburg, Holstein, and Eastern Prussia. There is also almost an entire absence of information with regard to the Sclavonic countries. If it be true, as Richter asserts, that leprosy first appeared in Russia in 1426, a period when it had assuredly begun to disappear in other European States, this fact would alone be a valuable addition to the current knowledge of its history. In August, 1862, at the request of the Duke of Newcastle, the Royal College of Physicians of London appointed a committee to collect information. The committee drew up a series of interrogatories which were sent to the various Medical authorities both in our Eastern and Western colonies. We have before us as the first fruits of the harvest of information which may be expected, the replies furnished by Assistant-Surgeon Dr. H. V. Carter, of the Jamsetjee Jejeebhoy Hospital. Dr. Carter's contributions on this subject are especially valuable, as for several years he has paid considerable attention to it, and has had a wide and fruitful field for observation. Dr. Carter states that leprosy is well known in most, if not in all, parts of India; that it prevails extensively in the Bombay Presidency, and that it presents itself under three forms or varieties. (1.) The first is an eruption on the skin, probably allied to Lepra (Græcorum), and accompanied by anæsthesia. This form has not been accurately distinguished by writers, but it is probably the *Leuke* of the Greeks, the *Baras* or *Beres* of the Arabs, and, perhaps, the *Barat Lebena* of the Hebrews. To it belongs the *White Leprosy*, or *Shvet-kusta* of India. (2.) The second variety is characterised by "anæsthesia of the skin of the face, ears, and extremities; followed in the latter case by atrophy, interstitial absorption, and, occasionally, ulceration of the benumbed parts, notably of the fingers and toes." This is the most frequent form. It is the *Guleet-kusta* or *Sunbahiree* of the Hindoos, and has been described as anæsthetic leprosy or articular leprosy. (3.) The third form is marked by tumefaction or tubercular thickening of the skin. It principally attacks the face and extremities, but is less marked on the trunk. This variety is best known and has attracted most attention in the west, but it is not the commonest in India. It is the *Tubercular Leprosy*, the *Elephantiasis*, *Leontiasis* of the Greeks, the *Lepra* of the translators of the Arabian writers, the *Jezam*, *Da-al-asad* (lion disease) of the Arabs, and the *Ructa-kusta*, *Ructa-pitia*, *Maha-viadhi* of Hindoos. Dr. Carter considers the second form to be the typical and most invariable, but he asserts that all three are but varieties of one common affection; they seldom occur separately, being almost always combined at certain stages; different members of the same family may be affected with each, they occur under the same circumstances and in the same locality, and a parent, the subject of one variety, may transmit another to his offspring. On the subject of premonitory constitutional symptoms ushering in the affection, Dr. Carter's experience is at variance with some other observers. He states, as the result of his inquiries, that there are no special or invariable premonitory phenomena. What the patient sees is generally his first intimation. The tubercular form appears soonest to lead to a fatal issue, evidencing perhaps a deeper taint than the more common or anæsthetic variety. The eruption alone does not seem materially to shorten life. Taking the disease as a whole, its duration may extend to twenty years, but from five to fifteen years is probably the usual period. In the town of Bombay the mortality seems to reach its maximum at about the age of thirty years. The male sex furnishes the most frequent cases of leprosy. The proportion of males to females is said to be about four to one. Leprosy principally attacks the native races. The mortuary returns of Bombay for 1860 show that the greatest number of deaths from the disease had occurred amongst the native Christians, next amongst the Marathas and low-caste Hindoos, particularly the latter; then follow the Mussulmans, the Parsees, and the vegetable-feeding Hindoos, whilst no case was furnished by the Jewish and European populations.

Although no caste is exempt, leprosy principally affects the lower orders of native society; the greater number of lepers are from small hamlets and rural districts, but many are from the towns. These districts are principally on the sea board, but the disease is also found inland, and Dr. Carter does not believe it to be essentially connected with sea coast residence. Neither is it limited to low land, as it occurs in the high districts of the Deccan, but Dr. Carter thinks that it seldom arises *de novo* in cool and dry localities. With regard to the effects of hygiene and mode of living, it does not appear that those affected have, previous to the appearance of the disease, been under influences different from their neighbours. Dr. Carter thinks that leprosy is a cachexia comparable in some respects to the syphilitic and strumous. Like the latter, it is clearly hereditary. There is no direct evidence that it is dependent on, or connected with, syphilis; but Dr. Carter strongly suspects that the two diseases are essentially related. Leprosy, however, does not appear to be transmissible by sexual intercourse, and Dr. Carter knows of no reliable evidence which

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would prove it contagious. He is inclined to think that the disease may be on the decrease. He believes it to be a constitutional affection having a local manifestation, and no more spontaneously curable than syphilis or struma. With regard to the causes of the disease, he thinks they require to be investigated *de novo*, and suggests that a special commission be appointed to investigate them. Dr. Carter, from the data he has collected, places the following districts in order of furnishing the greatest number of cases:—1. The Concan generally; 2. Guzerat; 3. The Deccan and table-land; 4. Rajpootana; 5. Kattiawar; 6. Kutch; and 7. Scinde.

The preceding are the principal points of interest contained in Dr. Carter's valuable report. If the inquiries instituted by the Royal College of Physicians succeed in eliciting equally reliable information in other quarters, that body will have conferred a real benefit on scientific medicine.

REVIEWS.

The Insane in Private Dwellings. By Arthur Mitchell, A.M., M.D., Deputy-Commissioner in Lunacy for Scotland, etc. 8vo. Pp. 97. Edinburgh: Edmonston and Douglas. 1864.

The object of this treatise is stated to be to exhibit the condition of the insane in private dwellings; to show the extent of proper treatment, which can be found in such establishments, for a certain class of them; and to prove the necessity which exists of providing for the accumulation of chronic cases in asylums an outlet which shall meet the requirements of humanity and economy.

It seems that the Scotch law, differing from that of England and Ireland, divides the insane not confined in asylums into two classes, according as they are supported by their own means and those of their friends, or as they derive maintenance wholly or partially from parochial boards. Their number in January, 1862, was estimated at 3628, of whom 1887 were non-paupers, and 1741 paupers. About 44 per cent. of all the insane in the country are thus provided for. Those who board with strangers at their own cost are required to be under the sheriff's warrant on certificates of insanity from two Medical men; they are visited at stated periods by officers of the Board of Lunacy. It is unfortunate that an excellent provision should be systematically evaded, so that not more than one in fifteen are in conformity with the Act. Those who live with relatives are even less under the control of the Board; but where the insanity requires coercion, and has lasted above a year, the house-occupier or Medical man is required to inform the Commissioners of the detention. From inquiries made by the Board, the writer is led to the conclusion, with which our readers will entirely concur, that "it would be an act of the highest philanthropy to create and endow, by public subscription or by the munificence of an individual, a middle-class institution in which such patients could be received at low rates of board, paid, of course, by themselves or by their friends." A powerful and sad picture is drawn of the way in which many lunatics "travel down to pauperism, dragging their whole family with them," and it is plain that what is best for the insane poor is best in the end also for the pockets out of which they are supported. A series of cases follows illustrative of these statements; many of them are of the most melancholy and startling character, fully confirming what has recently attracted so much notice in the public journals.

The pauper insane in private dwellings are those whose residence in the district asylum has been dispensed with by the Commissioners; they are under their supervision, and formed in 1862 33 per cent. of all the pauper insane. Their condition was found to be better than that of their non-pauper fellow-sufferers, though with some exceptions, of which details are given.

Very remarkable facts are stated as to the frequency with which imbecile women have borne children. The writer shows that it is only to be prevented by more careful surveillance, and remarks that "the unseemly event of an idiotic woman becoming pregnant is not to be obviated solely because it is a scandal to public morality, but for the further reasons that it propagates the deepest of human misfortunes, and imposes a heavy burden upon society."

This valuable work concludes with a long chapter, in which it is shown most conclusively, as it appears to us, that the transference of many lunatics, especially such as are in a chronic and incurable condition, from asylums to private dwellings, is the best thing to be done for themselves and also for the country at large.

Annals of Military and Naval Surgery and Tropical Medicine and Hygiene; being an Annual Retrospect embracing the experience of the Medical Officers of Her Majesty's Armies and Fleets in all parts of the world. Vol. I., for the year 1863. London: Churchill and Sons. 1864. Pp. 376.

This retrospect, if carried on as it has been commenced, will be to the Military and Naval Surgeon what the annual volumes of Ranking and Braithwaite are to the civil Practitioner. It is intended to take some note of every important paper or book bearing upon their special fields of practice. The subjects treated of are arranged in an order corresponding to the several military or naval stations. There is probably a practical convenience in this; at all events, there is a precedent for the arrangement, inasmuch it is that adopted in the Medical Blue-books, and has the advantage of showing separately the health-history of each command. The volume concludes with a series of obituary notices.

It is not a book to be reviewed at any length; it is sufficient to say that the matter of the present volume appears to be well selected. We have no doubt this annual retrospect will be very acceptable to that section of our Profession for whose benefit it is chiefly designed.

On the Nature, Pathology, and Treatment of Puerperal Convulsions. By Richard Hodges, M.D., F.R.C.S. Churchill and Sons. 1864. Pp. 96.

This is a very fair essay upon the subject. There is nothing new in it, but, for all that, the book may be of service to a good many who require to be taught what is old and established doctrine. The author tells us that his object in writing the book was to record his experience of the success of the treatment by early bleeding. The section on treatment, however, is simply written in the didactic style common to ordinary text-books, and we miss those narrations of cases or statistics which are naturally looked for in a work put forward on the ground which has been assumed by Dr. Hodges.

The Roman or Turkish Bath, together with Barége, Medicated, Galvanic, and Hydropathic Baths. By James Lawrie, M.D., L.R.C.S.E. Edinburgh: Machlachlan and Stewart. 1864.

It has been remarked that English Medicine inclines towards the exclusive or excessive ingestion of therapeutical agents by the mouth, while our French neighbours have been over-liberal in patronage conferred on the opposite extremity of the gastro-intestinal tube. Whatever be the truth of this assertion, there can be no doubt that the agitation raised in favour of Turkish baths has brought into very desirable prominence the importance of the skin as an emunctory and as a means of sound Medical treatment. The writer of the present work joins in a laudatory chorus, which from familiarity is now perhaps verging on contempt. In an introductory chapter he treats us to some venerable arguments in favour of hot-air baths. Although he denies their novelty, he assumes that they are generally esteemed novel, and proceeds to show how "useful discoveries are frequently opposed at first and their discoverers denounced," Harvey, Ambrose Paré, Jenner, Professor Simpson, and David Urquhart, Esq., being his typical martyrs to truth. It is unlucky that this line of reasoning may be applied to the wildest or most pernicious schemes which ever excited the instinctive opposition of popular common sense.

Chapters follow devoted respectively to the history of the bath and to a description of its nature. Then we have its varieties in different countries and its physiological action. We are introduced to the "seven millions of pores" which we carry about with us. Some rather hazy philosophy suggests a similarity in action between hot air and mercury, and the section concludes by hoping "that another Isaac Watts will arise to sing in moral songs the praises of the bath, and to describe the busy bather, and how he improves each sweating hour, and gathers oxygen all the day from every opening pore." Dr. Jonathan Green, Culverwell, some Irish peasant girls, John Bunyan, and other great authorities testify to the uses of the bath—an appliance, indeed, of which we never before suspected the latter worthy. Clemens Alexandrinus,

however, comes to the rescue of his saintly brother, and Hippocrates somehow reinforces the latter dignitary.

The bath is strongly advised as a cure for drunkenness, and penitent letters from reformed patients attest its success. Moreover, its prophylactic and therapeutic benefits are incalculable. A long chapter is devoted to answering objections to the bath, and incidentally to severe strictures on a Scotch Medical editor, who has incurred the auther's displeasure. From the author's case-book also we are favoured with an example of the power of Turkish baths in reducing obesity. A corpulent mother of several children under their influence became so much thinner that "no one could look upon her beautiful person without fancying to himself that the immortal Milton must have had his mental eye fixed on such a grand specimen of humanity when he wrote of our first mother (!)—

"'Grace was in all her steps, heaven in her eye;
In every gesture dignity and love.'"

"The lady was much delighted," adds the writer, and no wonder. Indeed, a concluding chapter is mainly devoted to gratitude. Letters are given in full from noblemen, gentlemen, majors-general, and doctors; one of the latter signs himself "Physician and Surgeon Cosmopolite," and in his concise opinion we may sum up the book. "I have taken Turkish baths," says this citizen of the World, "in every part of the world where they have been instituted, from Cairo to Sydney, and I consider Dr. Lawrie's bath is unsurpassed for neatness, comfort, and moderation of charges."

We make no demand for inserting this advertisement.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

April 15.

"Arma virumque cano," freely rendered, as I have heard, by some desperate schoolboy into "an arm and a man with a cane," might be the motto for the history of an occurrence which has lately occasioned an immense amount of interest here, Professional and non-professional. I mean the attack made on Dr. Rowe last Saturday week. Dr. Rowe had been engaged to a young lady, who, by the decisive act of marrying another gentleman, brought this engagement to a close. Certain letters, written by the lady during her engagement, and a locket remained in the possession of Dr. Rowe. These, it seems, Mr. Brice, the young lady's husband, was set upon having. On Saturday, April 2, he determined to bring matters to an issue, and with this view he provided himself with a letter from Mrs. Brice demanding the return of her correspondence, etc. He was further fortified by the company of an able-bodied friend, Scot by name, but Irish by nativity, carrying in reserve an *argumentum ad hominem* which took the form of a horsewhip. The proceedings commenced by the demand that Dr. Rowe would surrender the letters, etc. Dr. Rowe refused. Mr. Scot bolted the door, Dr. Rowe took up the fire shovel. Mr. Scot, with the preliminary announcement that the following "was the way they managed those things in Ireland," rushed on Dr. Rowe, and Mr. Brice looked calmly on while a struggle took place, the result of which was, that when at last an inspector of police found his way in, Dr. Rowe was on the floor, insensible and bleeding from the nose and mouth, and Scot standing over him, whip in hand, "perspiring very much, as if from recent exertion." The two cowardly ruffians were then marched off to Bridewell. Bail was allowed in consequence of a gross misrepresentation of the facts having been made to two magistrates, but the culprits were soon re-arrested, and have remained in custody up to the present time, for Dr. Rowe, in addition to a fracture of the fibula, had received such injury to the chest that up to Monday, April 11, he was not out of danger. I trust, however, that he may soon be safe.

At the meeting of the Medical Society, held on March 3, Mr. Lowndes showed the ankle-joint of a man, aged 44, which had been removed at the Great Northern Hospital, in consequence of strumous disease. The operation was performed on February 24, and Dr. Simpson's plan of acupressure was employed, instead of tying the arteries. Three needles only were used, and the wound was closed by sutures tolerably deeply passed. Forty-eight hours after the operation the needles were removed; there was no hæmorrhage, but there was a discharge of pus when some of the sutures were cut. On March 2 he was doing well, and seemed better than a patient who had had her leg amputated, in consequence of the effects of a railway accident, a week before. In her case, although only two ligatures were used, they kept up a constant irritation, and could not be removed till the fourteenth day. The joint, when opened, was found denuded of all articular cartilage. The astragalus was extensively carious, and the surfaces of the astragalo-scaphoid articulation were intensely red and ulcerated. Syme's operation had been contra-indicated by the very unhealthy condition of the integument.

Mr. Higginson, as an instance of the evil effects sometimes following the use of ligatures, mentioned a case of his own, in which twenty vessels were tied, and in which he believed that the profuse suppuration, kept up to a great extent by the presence of that number of threads in the wound, contributed not a little to bring about a fatal result.

Dr. Grimsdale then communicated to the Society a case of ovariotomy, in which, unhappily, acute peritonitis came on, and the patient died. In the discussion which followed, several members spoke on the importance of the publication of *all* cases of this operation. I can corroborate the statement that there have been several in this town which have not yet been made public.

At the next meeting Dr. Nottingham mentioned some peculiar effects which he had seen apparently due to working teak wood. It seems that enlargement of the glands of the neck, hypertrophy of the scrotum, and various skin eruptions were very frequent among those who were employed in working this wood. Its sawdust has a peculiar smell, something like that of tannin. He thought that the phenomena mentioned might be due to the amount of silicon which this wood contains. Dr. Nottingham also showed the body of an anencephalous child, born, at the full period, on March 11. The parents were healthy. The father a German, aged 28, the mother an Irishwoman, aged 22. The child was of full size, it breathed well, so that the skin acquired the ruddy tint seen in healthy newborn infants, and it lived for thirty-six hours. The pulse as well as the respiration was normal. The head looked much as if, after the removal of the top of the skull in a post-mortem examination, the skin had been stitched up without replacing the bones. This bag of integument ended in a sort of topknot, about the size of a walnut, very like a cock's comb in substance, but of a deep port wine colour. The true skin appeared to stop short at the circumference of this mass, but a delicate membrane like conjunctiva was continued from it over the mass. The osseous margin of the imperfectly developed base of the skull could be distinctly traced through the membranes, which contained little if any fluid. Unfortunately no post-mortem examination was allowed. The child never made any noise, but Dr. Nottingham found that it sucked when he put his finger to its lips. He found the child in a cold room, and apparently not much cared for. One case he knew of in a country village in which a poor little anencephalous monster was born so frightfully deformed, and was rendered so doubly hideous by constant convulsions, that the people, believing it to be "possessed" treated the unfortunate little being by a process "the reverse of artificial respiration" which effectually cured its convulsions.

In three cases which Dr. Nottingham had seen, about seven years since, there had been an opening in the top of the membranes, through which the finger could be passed.

Mr. Bailey mentioned a case in which an infant, on whom craniotomy had been performed, was not only born alive, but lived on, with a cicatrix in the scalp, and a somewhat deficient intellect.

On March 31 the Society was mainly occupied in the discussion of Dr. Imlach's resolution respecting services rendered in emergencies, which has already been published in your columns.

With regard to midwifery cases among the poor, it was resolved to communicate with the committee of the "Ladies' Charity" to ascertain whether they could make any provision for cases of this kind. This valuable society already provides the poor with the attendance of skilled midwives, and, if necessary, with that of the Medical men attached to the Charity. If its managers could establish stations in different quarters of the town, at each of which a trained midwife should be within call, such sad cases as that at Birkenhead might be prevented. Considerable care would be required to prevent impositions being practised on such an institution; better, however, that many undeserving people should be left to die without help.

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April 21.

P.S.—In reference to Dr. Rowe's case, I may mention that on Monday, the 18th inst., the prisoners Brice and Scot were again brought up. Dr. Rowe was stated to be out of danger, but unable to attend; and the prisoners were again remanded, no bail being taken.

GENERAL CORRESPONDENCE.

HOSPITAL MORTALITY.

Letter from Dr. J. S. Bristowe.

[To the Editor of the Medical Times and Gazette.]

Sir,—The personal discussion between Dr. Farr and myself is, I presume, at an end; but the question of the healthiness of British Hospitals cannot be allowed to rest where it is. Both Dr. Farr and Miss Nightingale have recently brought accusations against the healthiness of these institutions, resting ostensibly on mortuary tables which Dr. Farr has prepared. It is primarily necessary, therefore, that the meaning and value of these tables should be clearly understood.

Dr. Farr's statistics are contained in a letter of his published in the Twenty-fourth Annual Report of the Registrar-General, and put forward by himself as evidence in support of his accusation in your journal of February 27. In that letter are contained two tables, of which the following one is the more important:—

Principal General Hospitals in England and Wales, 1861.

	Number of Hospitals.	Inmates.	Average Number of Inmates in each Hospital.	Deaths.	Mortality per Cent.
Total Hospitals .	80	8535	107	6220	72·88
Hospitals containing—					
300 inmates & upwards	5	2090	418	2101	100·53
200 and under 300 .	4	913	239	838	91·78
100 and under 200 .	22	2898	132	2041	70·43
Under 100 . . .	49	2634	54	1240	47·08
Mortality of general population.					2·16

His conclusions from these tables are given in the closing paragraphs of his letter. These I append:—

"In the meantime it is evident from the tables that the mortality of the sick who are treated in the large general Hospitals of large towns is twice as great as the mortality of the sick who are treated in small Hospitals in small towns."

"It remains to be seen whether the mortality in small Hospitals is not twice as great as the mortality of the same diseases in patients who are treated in clean cottages."

In other words, it remains, in Dr. Farr's opinion, to be seen whether the mortality in large Hospitals is not four times as high as it should be; whether, in fact, three out of four deaths occurring in them are not the direct result of Hospital influences!

Miss Nightingale, in the recent edition of her "Notes on Hospitals," referring to a modified form of Dr. Farr's tables, which she publishes, says:—

"However the great differences in the death-rates may be explained, it cannot be denied that *the most unhealthy* Hospitals are those situated within the vast circuit of the metropolis; that the *next lower death-rate* takes place in Hospitals in densely populated, large manufacturing and commercial towns, and that *by far the most healthy* Hospitals are those of the smaller country towns."

Miss Nightingale uses "death-rate" and "unhealthiness" as equivalent terms, and emboldened by this confusion continues as follows:—

"Facts such as these—and it is not the first time they have been placed before the public—have sometimes raised grave doubts as to the advantages to be derived from Hospitals at all, and have led many an one to think that in all probability a poor sufferer would have a much better chance of recovery if treated at home."

There are, as Dr. Farr has shown, two methods by which the death-rates of Hospitals may be calculated. The first method is that which is in common use, and consists in ascertaining for each Hospital the ratio between the number of patients treated to a termination and the number of deaths which have occurred during a period of twelve months. Thus:—

Total No. of Patients per annum.		Total No. of Deaths per annum.				Death-rate.
p	:	d	::	100	:	$\frac{100\,d}{p}$

Advantages of this method are, that the actual number of patients who have been under treatment is a vital element in the calculation, and that the death-rate being deduced from numbers which can be ascertained with perfect accuracy need not itself be otherwise than perfectly accurate. But the principle on which this death-rate is obtained is so different from that on which the death-rate of the whole population is obtained that the respective results admit of no sort of comparison. The death-rate, in fact, is the death-rate of *diseases* treated in Hospitals, and not the death-rate of *the Hospital population*.

The second method is that which Dr. Farr has adopted in the letter to which reference has been made. In principle it is identical with the method by which the general mortuary tables are deduced, and by it the results for Hospitals and for the general population become like quantities, and admit of being dealt with accordingly. The method as applied to the population is this:—The estimated *average* daily population for a year is compared with the actual number of deaths which have taken place during the year, and thence by a simple arithmetical process the proportion of deaths to every hundred of this average population is ascertained.

Average Daily No. of Population.		Total No. of Deaths per Cent.				Death-rate.
A	:	D	::	100	:	$\frac{100\,D}{A}$

So in regard to Hospitals and other institutions, the death-rate is obtained by comparing, for each of them, the total annual number of deaths with the estimated average daily number of inmates for a year, instead of (as in the former case) with the actual number of persons who have been inmates during that period. The principle of this mode of ascertaining the death-rates of the populations of Hospitals and other institutions is undoubtedly mathematically correct; and by adopting it in his calculations, Dr. Farr has obtained the results given in the table which I have quoted.

The figures, as they are put in that table, with scarcely a word of technical explanation, do indeed look astounding. While the death-rate of the general population is scarcely more than 2 per cent., that of some Hospitals exceeds a hundred per cent.! That Dr. Farr understands the mathematical meaning of his figures no one will doubt; but that the majority of his readers understand them neither in this sense nor in any other, and are utterly misled by them, is certain. Let us, therefore, for the sake of illustration, apply Dr. Farr's method to a few hypothetical cases.

If, out of a fixed population of 10,000 persons, 200 die in the course of a year, the mortality of the population will be at the rate of 2 per cent. But if, during this supposed year, these same 10,000 persons had been successively inmates of an institution with 2000 beds, and the 200 deaths had happened within the walls of this institution, the result would have been for the institution a death-rate of 10 per cent. And again, if these same 10,000 persons had been on similar conditions inmates of an institution with 1000 beds, or of one with 500 beds, the mortality of these institutions would have become respectively 20 per cent. and 40 per cent.

	Average No. of Inmates.	Deaths.	Mortality per cent.
Institution with 2000 beds	. 2000	200	10·0
,, ,, 1000 ,,	. 1000	200	20·0
,, ,, 500 ,,	. 500	200	40·0
Population of 10,000 persons . . .		200	2·0

Now, in these figures we have actually placed before us, on a uniform plan, the respective death-rates of the several supposed institutions, but we have absolutely no hint from them in reference to the number of persons who have been inmates of these institutions, or to the relative duration of their sojourn therein. We have assumed in each case that the 200 deaths occurred among 10,000 persons, and on this assumption the average length of stay would have been in the first case 73 days, in the second 36·5 days, and in the third 18·25. But the death-rates of the institutions are obviously wholly independent of these important facts, and whether these institutions had received 5000 or 10,000 or 20,000 inmates in the course of the year, their death-rates (provided 200 persons had

died in them) would still be expressed by the figures above given. Dr. Farr may think this consideration wholly unimportant; he may assume even, as he seems to assume, that the mean average term of treatment is the same, or nearly the same, for all classes of Hospitals. But as a matter of fact, the mean term of treatment varies very greatly indeed, and is, as a rule, much longer (a) in the small rural Hospitals, which he regards as comparatively healthy, than it is in Metropolitan Hospitals, which he stigmatises as highly insalubrious; and, what is yet more important, it is greater for Surgical patients, in whom the death-rate is naturally low, than it is for Medical patients, in whom the death-rate is naturally high; (b) and it is considerably greater for patients suffering from subacute and chronic affections, which mostly yield a low mortality, than it is for fever (c) and other acute cases, among which the mortality is always extremely heavy; so that if a fever-house in which the average length of stay is twenty-two days be compared with a Surgical Hospital of the same size in which the average length of stay is forty-four days, the double proportion of relief which the former has been enabled to afford would have, in Dr. Farr's figures, no other effect than that of doubling its apparent relative insalubrity.

Has Dr. Farr, we ask, in drawing conclusions from his tables, really overlooked the different relative severity of cases admitted into his different classes of Hospitals, the different relative length of stay of their inmates, the different numbers of patients treated in them in relation to the numbers of constantly-occupied beds? Has he no suspicion that his death-rate is determined almost wholly by these causes?

When comparing his average unit of a metropolitan Hospital population, who dies once, and a little bit more, in the course of a year, with the average unit of the general population, of whom $\frac{1}{60}$th part dies per annum, has it not struck him that this unit has to undergo during the year (on his own showing) (d) ten serious illnesses or accidents, while many a healthy man never in the whole course of his life labours under more than one serious illness—the illness of which he dies? Or, when comparing his average units of different Hospitals, has it not struck him that his unit of one Hospital runs the gauntlet of risk to life from accident or disease ten times, while his unit of another Hospital runs it only five times; that his unit of one Hospital suffers from ten serious attacks of dangerous illness, while his unit of another Hospital undergoes ten trivial ailments?

Again: Has Dr. Farr calculated the birth-rates of lying-in Hospitals on the same principle, and attempted to draw deductions from the results? A lying-in Hospital, with ten beds habitually occupied, would yield at least 120 children per annum—a birth-rate of 1200 per cent. The average maternal unit brings forth a litter of twelve. Would Dr. Farr, who assumes that his death-rates of Hospitals are a measure of the unhealthiness of Hospitals, assume that the birth-rates of lying-in charities are a measure of the procreative influence of Hospital air? I have a suspicion that he would attribute the high birth-rate to the fact that a considerable number of women were delivered in proportion to available beds; that the charity effected in proportion to its means of accommodation a large amount of benefit; but I have also a suspicion that he would look on the whole calculation as a mere playing with figures.

Further: Has Dr. Farr thought of comparing the recoveries (escapes, if he will) per cent. in his various Hospitals with the deaths per cent.? A method of calculation which is good for determining the one point is, of course, equally good for determining the other. The death-rate varies from 47·0 to 100·5 per cent.; the recovery-rate (using Dr. Farr's own data) varies from 899·5 to 953· per cent.! These results do not, of course, invalidate Dr. Farr's figures; but they so far invalidate his conclusions that they might justify an enthusiast of an opposite bias in adducing the recovery-rate as a proof of the admirable healthiness of the very institutions which Dr. Farr condemns on account of their insalubrity.

If Dr. Farr had made his calculations about Hospitals in a tentative spirit, with the object of ascertaining whether they were likely to lead to any useful results, he would have acted in a way to which no exception could have been taken; if, when he had obtained his results, he had published them, and had at the same time pointed out clearly all their imperfections, and that, even had they been perfect, they would still have afforded no test at all of the relative healthiness of Hospitals, but possibly some test of the relative severity of cases admitted into Hospitals, his labours might have been regarded as trivial, but no complaint could have been made; but when both he, and Miss Nightingale under his guidance, not only publish such results, but themselves draw from them the inference, and try to mislead others into the belief, that the unhealthiness of Hospitals is in proportion to Dr. Farr's death-rates of Hospitals, we are bound to protest against the whole matter as an unfounded and mischievous delusion.

I am, &c., J. S. Bristowe.

2, Queen-square, Westminster, April 26.

P.S.—I hope ere long to have the opportunity of discussing other points connected with the death-rates and healthiness of Hospitals.

(a) In the small Hospitals at Colchester and Ipswich the average term of treatment is over sixty days. In the paper on "Hospital Statistics" published in the Statistical Society's *Transactions*, the average term is shown to have been—for St. George's, twenty-seven days; for the London Hospital, twenty-nine days; and for Guy's, thirty-five days.

(b) The following figures show the mean duration of treatment of Medical and Surgical cases for several institutions taken at random:—

	Surgical. days.	Medical. days.
St. Bartholomew's	44	28
St. Mary's	35	26
Glasgow	37	29
Adelaide (Dublin)	38	26

(c) The average duration of treatment in several fever Hospitals is as follows:—

	days.
London Fever (1861)	25
Glasgow	27
Greenock	21
Cork-street, Dublin	18
Hardwicke, Dublin	17

(d) Dr. Farr says in his letter "the mean term of treatment varies in different Hospitals; in many it averages 36·5 days, or the tenth part of a year."

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF DUBLIN.

The last meeting of this Society for the Session 1863-64 was held on Saturday, April 23, in the Anatomical Theatre of Trinity College. In consequence of the recent lamented death of the President, Dr. Mayne, the chair was taken by Dr. M'Clintock, one of the Vice-Presidents. Interesting communications having been made by several members,

Dr. M'Clintock said: Gentlemen,—Before proceeding to the business which properly belongs to this, the last day of our session, I must advert to the sad occurrence which has led to my occupying the President's chair. Under other circumstances, I would esteem this a rare distinction; but to stand in the place of one so highly valued and deeply lamented, I feel to be an honour bringing with it more of pain than gratification. The Council of your Society, anxious to mark their strong appreciation of Dr. Mayne's talents, and their sense of the great loss which the Society has sustained by his untimely death, have passed the following resolution, which it is my duty to lay before you, and sure I am that it will meet with the cordial acceptance of all present, from the youngest to the oldest:—"That this Council feels called upon to express its sorrow at the loss which the Pathological Society has recently sustained by the death of its excellent and beloved President, Dr. Mayne; a loss, moreover, not confined to this Council or this Society, but one which the Irish Schools of Physiology and Pathology have such abundant reason to deplore. The Council trust that the example of this distinguished man, and the history of his life and labours, will keep alive and will forward the interests of the healing art wherever it is cultivated as a science, and followed as an enlightened and honourable Profession." Gentlemen, it is the first time in the history of this Society—now twenty-five years in existence—that its President has been removed by death. We have thus been deprived of our highest officer, but, more than this, we have lost in Robert Mayne one of our earliest, ablest, and most zealous contributors. To speak of him as his merits deserve, or as my own feelings prompt me, would occupy too much of your time, nor could I do anything like justice to the subject. We all knew him to be a first-rate anatomist, a profound physiologist, an admirable pathologist, a close observer of the laws and phenomena of disease, and, as a result of all these, a most accomplished Physician. With such attainments he assuredly deserved our admiration and respect. Along with these he possessed qualities which caused him to be held in affectionate esteem by us all; for he possessed an open-hearted frankness and buoyancy of disposition which always made him a wel-

come companion, and which lightened every toil in which he was a sharer. All his actions were marked by undeviating honesty of purpose, whilst in his intercourse with Medical brethren of every age and rank his conduct was regulated by the highest standard of Professional honour. Gentlemen, we meet here week after week to rescue the secrets of disease from the cold grasp of death. Even this dread enemy of our race is made subservient to the advance of our noble science. But, alas, to-day we are forcibly reminded how irresistible is his power, and how impotent our efforts to withstand his assault. The man who had done so much towards unveiling these secrets has himself been vanquished! By an inscrutable decree of Providence, Robert Mayne has been struck down in the midst of a bright career, and when about to enjoy the well-earned reward of years of intense application and thorough devotion to Professional pursuits. He has missed the reward for which he strove so manfully, so honourably; but earnestly do I trust he has reached that goal which, after all, is the highest, the worthiest, the noblest object of our hopes and aspirations! It would, perhaps, be out of place here to review, or even to analyse, the several essays and monographs of which our late president was the author. They all are fresh in your memory, and are appreciated by you as they deserve. I shall, therefore, do little more than enumerate them. His maiden essay—that, namely, on Pericarditis—was published, as most of you know, when he was yet a mere student. It not only bears that stamp of accurate observation and sound deduction which characterise all his Medical writings, but it contained some original observations of very great clinical value. This essay gave a presage of the future man, and in it one can plainly see the germs, and more than the germs, of those talents by which his after fame and success were attained. To Todd's Cyclopædia of Anatomy and Physiology he contributed two articles, one on the Optic Nerve, and the other on the Perineum, both of which are worthy of being placed side by side with any of the essays in that incomparable work. Subsequently Dr. Mayne published in the *Dublin Journal of Medical Science* most carefully drawn up papers on epidemic dysentery, on chronic dysentery, on varicose aneurism, and on cerebro-spinal arachnitis. The distinguishing features of these papers is their eminently practical character. They bear the impress of truth and afford convincing evidence of a mind thoroughly trained to Medical reasoning and largely stored with well-digested facts. Dr. Mayne's most numerous contributions, however, were in the pathological branch of Medicine. There can be no manner of doubt but that his connection with this Society early led him to that close study of pathology which gave a sound basis to his Medical knowledge, and by which we have all from time to time so largely profited. The various communications which he made to this Society amount to no less a number than sixty. As most of you are aware, they were chiefly illustrative of diseases of the vascular, pulmonary, and cerebro-spinal systems, and of the pathology of fever. He always spoke to the purpose, and by closely comparing the morbid changes with the symptoms and physical signs which the case had presented, he seldom failed to make his observations interesting and instructive to all who heard him. It is worthy of being here recorded that his last contribution to Medical science was a communication to this Society not many days before he was seized with that malady under which he sank; and further, by a remarkable coincidence, that communication had reference to the pathology of the very disease to which he fell a victim—a disease that may well be called the scourge of our Profession. It can safely be asserted that his numerous and valuable contributions to this Society would in themselves be enough to establish his renown, and to give him an honourable place among the most distinguished names on the roll of our members. His fame will long endure; his worth none of us can forget; and the force of his example will, I trust, long be felt.

Dr. McClintock then announced that the Society's gold medal for the present year had been awarded to the author of the subject announced at the commencement of the session, "The Pathology and Diagnosis of Diseases of the Ovaries," who had assumed the name of "de Graaf," and, on breaking the seal of the letter containing his real name, this gentleman was found to be Mr. Austin Meldon. Mr. Meldon having presented himself, the chairman said he had great pleasure in congratulating him on being the successful competitor for the prize. His treatise possessed not merely comparative merit, but it possessed merits of a positive kind. It displayed a vast deal of research; it was replete and rich in clinical illustration, and great judgment and care had been shown in the arrangement and classification of its contents. It gave him much pleasure, therefore, to be the medium of conveying to Mr. Meldon the Pathological Society's gold medal for this treatise—a medal which he had justly earned by his industry and diligence; and with such a proof of Mr. Meldon's talent and diligence while yet a student, he confidently ventured to predict that in future years, if health and opportunity be permitted, he would prove himself a successful contributor to the advance of Medical science, that he would reflect honour on the society which had thus early encouraged and rewarded his diligence, and show himself a pillar of the Dublin School of Medicine. (Applause.)

The Society then adjourned till November next.

MEDICAL NEWS.

University of Aberdeen.—April 22.—At the late Graduation Term, the following Candidates, after the usual Examinations, received Degrees in Medicine and Surgery:—

Degree of M.D.

Samuel Davidson, M.A., Wartle, Rayne, George Dickson, L.R.C.P. and S., Edinburgh, William Gregory Van Dort, Colombo, Ceylon, and John Gray M'Kendrick, Aberdeen, honourably distinguished; James Copland, M.A. Ed., Edinburgh; John Dunlop, L.R.C.P. and S. Ed., Lanarkshire; John Fraser, Grantown; William Grant, Methlic; James Foote Henderson, Aberdeen; James Ledingham, M.A., Aberdeen; William James Smith, Kintore; George Charles Henry Wigan, M.R.C.S. Eng., L.A.C., Bristol; George Yeats, Aberdeen.

At the same time, the following were promoted to the Degree of M.D.:—

James Ross, M.B. (H. Hon.), and M.C. (H. Hon.), Aberdeen, and James Clark, M.B., Aberdeen.

Degree of M.B.

George MacIver Campbell, M.A., Old Aberdeen, and Robert Alexander Farquharson, M.A., Ballater, honourably distinguished; George Andrew, M.A., Huntly; Theunis Johannes Botha, Cape of Good Hope; Charles Burnett, Alton, Hants; Stewartson Clark, New Pitalligo; Alexander Duncan, M.A., Aberdeen; James Hector, Aberdeen; Robert Keith, Keithhall; Robert Davidson Kemp, Aberdeen; Godfrey Alexander Macrae, North Uist; Alexander Minty, Kennethmont; John Murray, Woodside; William Paterson, M.A., Aberdeen; Peter Shepherd, Leochel-Cushnie; William Henry Stewart, Grantown; Thomas Watt, M.A., Aberdeen.

Degree of M.C.

Robert Alex. Farquharson (highest honours); George MacIver Campbell, Samuel Davidson, William Gregory Van Dort, John Gray McKendrick, and William Paterson, honourably distinguished; George Andrew, Thennis Johannes Botha, Charles Burnett, Stewartson Clark, James Copland, John Fraser, William Grant, John Gray, James Hector, James Foote Henderson, Robert Keith, Robert Davidson Kemp, James Ledingham, Godfrey Alex. Macrae, Alexander Minty, John Murray, Peter Shepherd, William James Smith, William Henry Stewart, Thomas Watt, George Charles Henry Wigan, George Yeats.

At the same time, the following were declared to have passed part of their Examinations:—

William Scott Aitken, Frederick P. Atkinson, Alexander Campbell, John M. Campbell, William Duncan, Owen Evans, George Findlay, James E. Fowler, William Robert Gordon, Alex. Lyall Grant, James Grant, Edward Gray, Alfred Orlando Jones, George King, John Knox, John Macpherson, Josiah W. Matthews, John S. M'Gowan, Robert Moir Milne, Alex. Gordon Mitchell, Edwin B. Muskett, David Nicolson, Archibald G. Robertson, John Robson, James Rodger, Robert John Scott, Robert Shiels, John Simpson, Alex. B. Strahan, Charles James Trenerry, John Whyte, Alfred Harold Wheldon, James Williamson.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary Examinations for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on April 26—viz.:—

John Sidney Turner, Seaford, Sussex; Nyssian Holman Lower, Lewes, Sussex; Henry Viant, Totton, near Southampton; Thomas Haywood Smith, Alcester, Warwickshire; Robert Chapman Gibson, Fyfield, Ongar, Essex; John William Hayward, Seasalter, Kent; and Edward Peter Shorland, L.S.A., Westbury, Wiltshire, Students of Guy's Hospital. Frederick Henry Appleby, East Retford, Notts.; and Alexander Bruce, Albert-terrace, Regent's-park, University College. Joseph Bower Siddall, L.S.A., Morton, Derbyshire; and Wm. Boyle Coghlan, M.A., Queen's Univ., Ireland, Manchester, of St. Thomas's Hospital. Edgar Athelstone Browne, Notting-hill; and Alexander Clement Rayner, Bedford, of the Charing-cross Hospital. Henry George Benvenuto Harris, Coombe Down, Somerset; and John Frederick Foster, Guernsey, of St. George's Hospital. George Benson Baker, Southport, Lancashire, St. Mary's Hospital; Henry William Freeman, Bideford, Devon, of the Middlesex Hospital; Albert James Wallis, Cambridge, of St. Bartholomew's Hospital; Edward M'Conkey M'Cready, M.B., Trin. Coll. Dub., Birmingham, Dublin; Robert Morris Mecklejohn, Bombay, Edinburgh; Thomas Bond, North Petherton, Somerset, of King's College; and John Reuben Bathurst Dove, Falfield, Berkeley, Gloucestershire, London Hospital.

The following were admitted members on the 27th inst., viz.:

Messrs. Spencer Henry Simpson, Stowmarket; William McCandlish, Glasgow; William George Vawdrey Lush, L.S.A., Wilton, near Sailsbury; James Walbridge Snook, Wellington, Shropshire; George Vincent Lang-

worthy, Medbury, Devon; John Powdrell, L.S.A., Farndon; Allen Wearing, Lancaster, and Albert Comberbach Reade, Congleton, Students of St. Bartholomew's Hospital; John Henry Salter, Arundel; Alfred Ensor, Dorchester; George Henry Madeley, Kensington; Richard Wheeler Haines, L.S.A., Broomsgrove, and Joseph Snape, Liverpool, of King's College. Henry Couling, Kingston Bagpuize; Charles Frederick Long, L.S.A., Ipswich, and Thomas Robert Nason, Nuncaton, of Guy's Hospital. Edward Maundrell, Calne, Wiltshire; Thomas Henry Green, Saffron Walden, and William Spooner, Southampton, of University College. Charles Adcock, Birmingham, and William Bullus, West Bromwich, of the Birmingham School. William Yates, Richmond, Westminster Hospital. Laurence Corban, Cork; Ebenezer Snell, Plymouth, Middlesex Hospital; John Henry Hughes, M.D., Queen's University, Ireland, Armagh, and Charles Davidson, Orkney.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, April 21, 1864:—

Richard Istance, Carmarthen; John Edmund Gunning, Surbiton, Surrey; Joseph Carter Neynoe Murphy, 75th Regiment; John William Devereux Bain, Brunswick-terrace, Blackwall.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ADAM, JAMES, M.D. St. And., has been elected Assistant Medical Officer to the Female Department of the Middlesex County Lunatic Asylum, Colney Hatch.

ANDERSON, Mr. W., Univ. Glasg., has been appointed Assistant to the House-Surgeon of the Northampton General Infirmary.

BULLEN, F. D., L.R.C.P. Edin., has been appointed Assistant Surgeon to the North Charitable Infirmary, Cork.

COLEMAN, EDWARD H., M.R.C.S. Eng., has been appointed Consulting-Surgeon to the South Staffordshire General Hospital, Wolverhampton.

CUBITT, GEORGE R., M.R.C.S. Eng., has been appointed Medical Officer for the Workhouse of Stroud Union, Gloucestershire.

EVERSHED, A., M.R.C.S. Eng., has been appointed Medical Officer for the Workhouse of Ampthill Union, Beds.

HUGHES, JAMES STANNUS, M.D. Glasg., has been appointed to the office of Inspector of Lunatics under the Court of Chancery in the Northern Districts of Dublin.

LITTLE, FREDERICK, M.R.C.S. Eng., has been elected Resident Medical Officer to the Jersey General Dispensary.

SOMERVILLE, J. E., M.D., has been elected Coroner for the West Riding of York.

SOUTHEY, REGINALD, M.B. Oxon., has been elected Physician to the Royal General Dispensary, Bartholomew-close.

WATSON, HORACE N., M.D., has been elected House-Surgeon to Queen Adelaide's Dispensary, Wilmot-square, Bethnal-green.

DEATHS.

ALSTON, HUGH M., M.D. Glasg., at Dalry, Ayrshire, on April 10, aged 49.

BREMNER, ALEXANDER, M.R.C.S. Eng., at Keith, Banffshire, on April 9, aged 73, formerly Surgeon in the Army.

CUMPSTONE, WILLIAM, M.R.C.S. Eng., at Market Rasen, Lincolnshire, on April 13, aged 28.

HAMILTON, ROBERT, Surgeon, at 1, Princes-road, Liverpool, on April 21, aged 78.

HARRISON, JOHN SWEETING, M.R.C.S. Eng., at Braintree, Essex, on April 20, aged 77.

HAWORTH, G., M.D., at Brunswick-street, Oxford-road, Manchester, on April 8, aged 41.

MCGILL, WILLIAM, M.D. Edin., at Grove House, Tunbridge, on April 21, aged 51.

MATHER, HORATIO, C.M. Glasg., at Earlstown, Newton-le-Willows, near Warrington, on April 20.

STATTER, EDWARD, L.S.A., at Morecombe Bay-villa, Bare, near Lancaster, on April 6.

WALLACE, ROBERT, L.R.C.P. Edin., at Eglinton-street, Glasgow, on April 9.

WE hear that Dr. Bullen, the Professor of Surgery at Queen's College, Cork, has resigned his chair in deference to the expressed wishes of the students.

MR. TIDD PRATT, the Registrar-General of Friendly Societies, has been designated to the office of general manager of the insurance department of the office about to be created by Mr. Gladstone's Government Annuities Bill. It is understood that the salary attached to the appointment will be £5000, with the option of simultaneously holding his present appointment of Registrar. Dr. Farr will be the actuary, at a salary of £2500; but it is understood that this new appointment will not interfere with the holding of his present office. —*The News.*

AN INGENIOUS APPLICATION OF ELECTRICITY.—Mr. Cornelius, of Philadelphia, has just perfected an ingenious mean of lighting gas by means of electricity as it issues from the ordinary burner. The little apparatus required forms an ornamental appendage to the gas bracket or chandelier, and is always ready for action; so that matches and tapers may be entirely dispensed with. By a very gentle friction of two surfaces a delicate spark of electricity is generated by the movement of the gas from the burner. The apparatus consists of a small brass conical cup, with an inside lining of lamb's wool and silk, into which is loosely fitted a plug of hard rubber, surmounted by a knob or handle. The slight friction caused by simply lifting this plug from its bed in the cup generates sufficient electricity for the purpose. This is conducted by a delicate copper wire or chain covered with silk to the orifice of the burner, where it is discharged from a platinum point through the jet of gas, and instantly ignites it. Nothing can be more simple and beautiful, while the cup and chain are a decidedly ornamental addition to the bracket.—*American Med. Times*, No. 15.

ODONTOLOGICAL SOCIETY.—At the last monthly meeting, held on the 4th inst., Edwin Saunders, Esq., F.R.C.S., in the chair, a number of casual communications were made on various models then presented to the Society's museum. The Secretary then read a paper, by H. Kyan, Esq., of Preston, on the "Extraction of Teeth and Roots as a Preparation for the Introduction of Artificial Substitutes." The author considered that the presence of roots in the mouth impaired the breath, that they could not bear pressure without disease, and prevented a uniformity in the resisting surface of the gum, thereby causing unsteadiness of the artificial substitutes. His experience led him to adopt the practice of extracting all teeth and roots which were liable, even remotely, to occasion future trouble. The discussion that followed elicited the opinion of the Society to be in favour of conservative Surgery; and that, as a rule, it was far more desirable to preserve than to extract all teeth and roots. The thanks of the Society were accorded to Mr. Kyan, and a paper, by S. Cartwright, Esq., on "Some Forms of Irregularity and their Treatment," was announced for the next meeting.

SHOULD any one desire to calculate the amount of each of the essential elements of a physiological dietary, we will present him with the means of doing it himself by the following extract from a table given by Dr. Letheby in a paper which he read before the Society of Arts a few years ago, and which represents the nutritive value of different kinds of food:—

Substance, 100 parts.	Water.	Fibrin and albumen.	Starch, sugar, etc.	Fat.	Salts.	Carbonaceous.	Nitrogenous.	Total nutriment.
Human milk (the standard of comparison). . .	89	3·5	4·2	3·0	0·2	11·4	3·5	14·9
Cows' milk . .	86	4·5	5·0	4·1	0·7	14·8	4·5	19·3
Beef and mutton .	73	19·0	..	5·0	2·0	12·0	19·0	31·0
Cheese (skimmed) .	44	45·0	..	6·0	5·0	14·4	45·0	159·4
Butter . . .	15	..	..	83·0	2·0	99·0	..	99
Wheat flour . .	15	11	70	2·0	1·7	74·8	11	85·8
Oatmeal . . .	15	12	62	6·0	3·0	76·4	12	88·4
Peas	13	22·0	58·0	2·0	3·0	62·8	22·0	84·8
Wheat bread . .	44	9·0	49·0	1·0	2·3	51·4	9·0	53·7
Potatoes . . .	74	2·0	23·0	0·2	0·7	93·5	2·0	25·5
Green vegetables	86	2·0	4·0	0·5	0·7	5·0	2·0	7·0

As respects "the nutritive equivalent of foods," as they may be termed, the following extract may be useful:—"If we were to ask how much meat, bread, rice, and potatoes may be substituted for each other to supply the 2000 grains of nitrogenous matter which are daily expended on an adult human body, the theoretical answer is—24 ounces of the first, 51 of the second, 65¼ of the third, and 228½ of the fourth; but these quantities contain very unequal proportions of carboniferous matter, and hence their effects on the animal system is also very unequal—to say nothing of the fact that in the act of appropriating them different amounts of labour would be demanded from the different digestive organs. So also in endeavouring to construct a table of nutritive equivalents for the carboniferous matter contained in different foods, attention must be paid, not merely to the relative proportions of fat, starch, and saccharine material, but also to the respiratory powers of these substances; for it is known that 10 parts of fat have the value of 24 of starch, or 25 of cane sugar, or 26 of fruit sugar, or 27 of spirit, or 77 of lean flesh; and experience shows us that these are the proportions in which they may be substituted for each other."

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A VETERAN OCULIST.—It is stated in the *Weiner Medizinische Zeitung* that among these senior specialists Mr. Bowman works indefatigably still for science, notwithstanding a practice he can hardly get through, and even the eighty-five-years-old Laurence is still as active as ever, and occupies himself with especial preference in all the discoveries and observations of Donders. Mr. Laurence has just evidenced the active zeal which animates him in the production of an excellent *brochure* "On the Progress of Ophthalmic Surgery," since the introduction of the ophthalmoscope. It is scarcely necessary to add that the gentleman here mentioned is *not* the Senior-Surgeon to St. Bartholomew's Hospital, but Mr. J. Z. Laurence, the Senior-Surgeon to the Surrey Ophthalmic Hospital.

MR. O. FERRALL has published a useful tract on the cure of anthrax by pressure. With respect to the mode of applying compression to an anthrax, he says, it is very easy of accomplishment if the principle be kept in mind—to maintain and promote the capillary circulation. The compression must be firm, and must begin at the periphery of the swelling and gradually approach its centre. I cover the swelling with straps of plaster drawn tightly from the neighbouring sound parts, and they by traction exert a firm degree of compression on the swelling. When the skin of the sound parts is thus drawn together, it will by its own elasticity in the act of recovering its position with respect to subjacent parts, produce a distinct and appreciable amount of compression on the swelling. The dressing should be removed every day, and it is invariably observed by the dresser that the pus oozes freely from the centre during the process, and the slough begins and continues to project until it comes away altogether. It is not, however, to the shape or medication of the plasters that I attach any importance. Simple oblong strips of plaster can be made to effect the object, if applied so as to produce a steady, equal, and firm compression of the parts. I may add, that I have found a coating of well-made collodion of considerable service from its contractile properties. The old method by crucial incision is always painful, often inefficient, and occasionally fraught with danger to life. The new method is not only painless in its application, but actually relieves the pain existing at the time; it is effectual in arresting the progress of the disease, and the process of cure is more speedy and complete.

THE enormous and rapidly-increasing demand for meat which characterises the food-markets of these days has reacted in a remarkable manner upon the nature of the animals that supply it. Formerly the animals that furnished pork, mutton, and beef, were allowed to attain the age of three years old and upwards before they were considered to be "ripe" for the butcher: but now sheep and pigs are perfectly matured at the early age of one year; and two-year-old oxen furnish a large quota of the "roast beef of old England." The so-called improvement of stock is simply the forcing of them into an unnatural degree of fatness at an early age; and this end is attained by dexterous selection and crossing of breeds, by avoidance of cold, by diminishing as much as possible their muscular activity, and lastly, and chiefly, by over-feeding them with concentrated aliments. . . . The habits of animals, and the nature of their food, affect the quality of their flesh. Exercise increases the amount of osmazome, and consequently renders the meat more savoury. The mutton of Wicklow, Wales, and other mountainous regions is remarkably sweet, because the animals that furnish it are almost as nimble as goats, and skip from crag to crag in quest of their food. The fatty mutton, with pale muscle, which is so abundant in our markets, is furnished by very young animals forced prematurely into full development. Those animals have abundance of food placed within easy reach, and their muscular activity is next to *nil*; the result is, that their flesh contains less than its natural proportion of savoury ingredients. It is the same with all other animals. The flesh of the tame rabbit is very insipid, whilst that of the wild variety is well flavoured. Wild fowls cooped up, and rapidly fattened, lose their characteristic flavour; and when the domesticated birds become wild, their flesh becomes less fatty, and acquires all the peculiarities of game. . . . The meat of animals brought very early to maturity is seldom so valuable as the naturally developed article. Lawes and Gilbert state that portions of a sheep that had been fattened upon steeped barley and mangels, and which gave a very rapid increase, yielded several per cent. less of cooked meat, and lost more, both in dripping and by the evaporation of water, than the corresponding portions of a sheep which had been fed upon dry barley and mangels, and which gave only about half the amount of gross increase within the same period of time. . . . On the whole, then, we may say of the improved system of fattening stock, that it produces a maximum amount of meat on a given area of land; that the meat so produced is, except in rare cases, perfectly wholesome; that it is capable of supplying the ingredient—fat—which is almost wholly absent from a vegetable diet; and, finally, that it places animal food within the reach of the working classes.—*Professor Charles A. Cameron in the "Edinburgh Veterinary Review."*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

The Greenwich Squabble.—We think Dr. Moon is quite justified in circulating his statement amongst his Professional brethren, although the higher course might have been to have treated the affair with the contempt it deserves. We see every reason to repeat the intimation we made in our number for March 5, that if a Court-Medical were held at all Dr. Purvis should be the defendant, and not Dr. Moon. The case lies in small compass. Dr. Purvis was in attendance on a lady in July last, when he was asked to meet Dr. Moon in consultation. He refused to do so. This was mistake the first. Of course the patient sent for Dr. Moon, as she had a perfect right to do, and Dr. Purvis ceased his attendance. Instead of letting the matter drop, and acquiescing good-humouredly, Dr. Purvis wrote in November to Dr. Moon, complaining that Dr. Moon had impugned his diagnosis and treatment, which, according to the evidence, Dr. Moon did not. He also complained that Dr. Moon had done wrong in supplanting him with the patient, than which, on his own showing, a more preposterous charge could not be made. He also, during the patient's lifetime! asks to be present at her post-mortem examination—a thing which makes one's blood run cold. However, the patient died on December 14; and a *post-mortem* was held next day, at which Drs. Moon, Pallfrey, Duncan, and Purvis were present. They found disease of womb and tubercular infiltration of the lungs. It was agreed that this result of the inspection should be communicated to the relatives by Dr. Moon; and it was so. But here occurred an act of carelessness on Dr. Moon's part, which is the only thing that can be alleged against him, and which is quite inexplicable. In the certificate which he gave the Registrar of Deaths, he ascribed the death to *neuralgia* and *acute phthisis*, omitting *carcinoma*, which he had written first in the fly-page, and which he says he left out through haste and inadvertence. Certainly it is difficult to conceive of any corrupt motive which could have actuated him, or of any difference that the omission could have made to any one. The family had been informed of the whole truth. Dr. Purvis's original diagnosis of uterine disease had been justified. Dr. Purvis, however, who seemed to have been in a state of chronic discontent, accused Dr. Moon—

1. Of having unprofessionally superseded him on the 10th July last in having seen the patient and administered medicine at the time he knew he was in attendance.
2. Of having attributed to him an error in diagnosis and unskilful treatment.
3. Of having given a certificate which was untrue.

Dr. Purvis then had the audacity to summon by circular, dated Jan. 21, a meeting of all the Medical Practitioners of Greenwich, to be held on the 27th, in which circular he speaks of a "misunderstanding of a very serious character," which materially affected his Professional character, the facts of which he desired to lay before a collective meeting of Practitioners of the neighbourhood, as a better course than bringing it before a legal tribunal. He summoned Dr. Moore to attend this meeting, without furnishing him with a proper specification of the charges, and without obtaining his consent to the adjudication of the so-called "Court-Medical." Of course Dr. Moore refused to attend or acknowledge the jurisdiction of this Court. Nevertheless, the meeting was held, and the Practitioners present proceeded to entertain the question! In so doing they were unmistakably wrong. They should have offered their services as arbitrators; and in case of Dr. Moon's refusal, might have taken further steps; as it was, to call themselves a "Court," and proceed in the defendant's absence, was a mistake. However, the "Court" did sit, the two first charges were withdrawn, and a paper was signed by Dr. Moon's friends, expressing regret at the error in the certificate. There the matter ought to have ended. The proceedings were private. But there followed a set of the meanest and most disreputable proceedings possible. A statement of the case was allowed to appear in the *Lancet* of January 30, of which we say unfeignedly that a more unfair and nonsensical statement is impossible to be conceived. Then followed publications and notices in the local journals, which drew forth editorial remarks which ought to have made the propagators of these scandals blush; and, *prok pudor*, handbills! are said to have been circulated, all against Dr. Moon, whose conduct (with the exception of that certificate, which was no business of Dr. Purvis's) seems quite irreproachable. Let us ask, in conclusion, do we wish the public to think of us as a set of fractious, narrow-minded, spiteful old women? Are they to give

us credit neither for such education as enlarges the mind nor for pursuits which raise us above the meanest gossips? Are they to conceive of us as allowing our petty egotisms and jealousies to be distracting our minds amidst the scenes of sickness and distress in which they fondly hope to obtain our unruffled, unbiassed, single-minded counsel? Are they to think that we would sooner let a patient —"my patient" again—go on in torture rather than consult with a junior Practitioner? If so, by all means let us have more of these squabbles, and make the most of them; but don't let us complain that patients have no faith in physic, or, rather, that they despise the practitioners thereof, as they infallibly must.

Testimonial to Mr. Griffin.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Permit me to acquaint my Professional brethren the Poor-law Surgeons that five of the six Medical officers of this (the Amersham) union have now subscribed five shillings each to the two funds, making twenty-five shillings in all. The remaining officer is very ill, and has not been applied to. Now, there are 650 unions in the country, and if each union furnished a proportionate amount to the above, we should have in possession the very respectable sum of £812 10s.—an ample supply for both the purposes we require, viz., the expenses of the Reform Association and the testimonial to our chairman. The subject of a testimonial has now been submitted to the consideration of gentlemen for more than a month in the pages of the Medical journals, and I regret to say that the great mass of my Professional brethren have not as yet exerted themselves in favour of this object. Surely this is as opportune a moment for doing something in the way of thanks—and, I will say, of recompense—for the nine years of continued and unrelaxed efforts of Mr. Griffin to gain, both for the poor and ourselves, something like justice at the hands of the Government. Were the scheme which he proposes to become law, it would be a social and economical benefit to all classes of the community. That he has not succeeded in obtaining this measure of justice is no fault of his, but is rather to be laid to our own charge, and is no argument against our presenting him with the very inadequate acknowledgment which I lately proposed, and which I would fain see carried out. I cannot doubt but that gentlemen are of one mind in this matter, and that they are both able and willing to give their money towards this most desirable object. To do this completely and satisfactorily, it is only necessary that some one of the Medical officers in every union in the country should put his shoulder to the wheel, and call upon, or write to, his brethren, requesting their assistance in so just and equitable a proceeding; and, when the collected sums shall have been forwarded to the offices of one or other of the weekly Medical periodicals, the thing would be in great measure accomplished.

I beg, therefore, to call upon gentlemen to act without further delay. Mr. Griffin has performed his part in doing our work ably and well; we are, or ought to be, much indebted to him. It is now our bounden duty to offer him some token of our esteem and gratitude. Let us not fall short of our obligations, but do it generously and without stint.

I am, &c.

Amersham, Bucks, April 26. Wm. Prowse.

Inhalation of Arsenic.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Being desirous of trying the effect of smoking arsenic in tubercular disease, would any of your readers kindly inform me, through the medium of your journal, the most approved means of inhaling that substance, as I am completely at a loss how to proceed. I am, &c.

Glasgow, April 20. Inconnu.

Hypertrophy and Ulceration of the Labia Majora.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will any of your readers oblige me by giving me in your next number some hints as to the treatment of a troublesome case of scrofulous ulceration of the labia majora, along with which is great hypertrophy? I have tried various local stimulants without effect, and am now hesitating whether to excise the parts, or destroy the diseased tissues by some caustic, If I must adopt the latter, I should like to know which escharotic is best suited for such a case. I am, &c., M.D.

The "British Medical Journal" and Ophthalmology.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A leading article in the *British Medical Journal* of the 16th instant is devoted to an attack upon the *Ophthalmic Review*. The article in question contains statements that are untrue, and that I ask leave to contradict, in the interests of truth and science.

The writer says that "Dr. Mackenzie, Mr. Wharton Jones, and Mr. Dixon are quoted to show how unpardonably ignorant they have shown themselves of the ophthalmoscope through their published writings." If this sentence were transposed into sense and English, so as to express the probable meaning of its author, it would still be without foundation. The *Ophthalmic Review* does not contain one single word which could even imply a charge of ignorance against Dr. Mackenzie or Mr. Wharton Jones, who are only mentioned on account of the historical interest which attaches to the slight value they were, at one time, disposed to assign to the ophthalmoscope. I believe these gentlemen would cordially agree with the general spirit of the article in which they are referred to; and their names (especially the honoured name of the venerable Dr. Mackenzie) do not need my protest in order to free them from the ridiculous imputation cast upon them by your contemporary.

The astounding misstatement I have quoted casts into shade some half-dozen minor inaccuracies, equally culpable, but not equally important. The critic refers to Dr. "Rainey" and to "Schamenburg,"—persons of whom I have never heard. He states that Mr. Hulke's book is useless, and implies (falsely) that this statement is a quotation from the *Ophthalmic Review*. He places within inverted commas the words "modest and sagacious Helmholtz," implying (falsely again) that these words are quoted from the same source.

The critic displays, however, an amount of ignorance that cannot be altogether feigned. He seems really not to know what sort of proportion the cultivation of ophthalmology in Germany, during the last few years, has borne to its cultivation in other countries. He is wroth at the names of "German Surgeons" mentioned in the review, and complains that "the doings of French Surgery" are scantily noticed. Among the "Germans" he enumerates Wecker. It will comfort him to know that Dr. Louis Wecker, in spite of his German surname, is a Professor in Paris, and a French author of no small celebrity.

I do not address myself to the *British Medical Journal* upon this question, because I think such gross and extraordinary carelessness places a journal, as it would place an individual, beyond the pale of ordinary courtesy. Is it possible that the tone lately assumed by the publication in question depends rather upon design than upon incapacity, and that its managers entertain a wish to supply, by any means, an "organ" for the expression of the sentiments and opinions of the least instructed portion of the Profession in this country? A while ago, there was a cry for "cash payments and no Professional liberality," and it would seem that "British ignorance, and down with the furriners," is now to be used in its turn.

I am, &c.

The Author of the Article, "English Ophthalmoscopic Literature," in the "Ophthalmic Review."

Poisoning by Mussels.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I shall be glad by your giving the accompanying case a place in your Journal, if you deem it worthy of it:—

A few evenings ago I was called to see a young woman who had, whilst eating a plain supper, been induced to taste a boiled mussel, and about half an hour afterwards was seized with vertigo, pricking and burning pain in the tongue and eyes, which began to swell, producing a sense of suffocation. I attended as quickly as possible, when I found her in the following condition:—Face of a bright crimson colour, enormously swelled, the eyes being scarcely visible; tongue so much enlarged as to prevent protrusion and interrupt the articulation; body thickly covered with large patches of scarlet colour intensely irritable; breathing hurried; pulse small, weak, and very rapid; general depression of vital powers, etc. She complained of pain in the epigastrium, headache, and great thirst. Whilst speaking to her, syncope suddenly came on, the extremities became very cold, body bathed in cold sweats, and pulse almost imperceptible; after a few minutes she rallied sufficiently to be able to take an emetic, which produced good effect. Small quantities of hot brandy-and-water were then administered with great relief to her pain, and after about an hour the symptoms gradually subsided, and she fell into a quiet sleep. The next morning the face was still much puffed, and some few patches remained on the skin, but she had no pain; she took a warm aperient, and the following day had regained her usual good health.

Although instances of the deleterious effects of fish undergoing putrefactive change are not uncommon, I think symptoms of such severity as the foregoing are not often seen; that they were due to idiosyncrasy, and not to any unwholesomeness of the mussels, there can be no doubt, as four other persons partook freely of them with impunity, and my patient assures me that she only ate *one*, as she did not like the taste of them. There can be no question as to the importance of a speedy evacuation of the contents of the stomach in such cases, and the administration of stimulants to relieve the consequent depression, recovery so quickly ensuing as to render further treatment unnecessary. Cases of this kind may be of importance in a Medico-legal point of view.

I am, &c.

April 7. "Nemo Sibi Vivat."

Amylene.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—It may interest one of your subscribers who makes inquiry about amylene to state that since the date given by him amylene has been used pretty extensively at Berlin, but does not seem to possess any greater safety than chloroform. Amylene has an unpleasant smell, too, of naphtha, not desirable in the sick room: it is very difficult to prepare, and in some examinations of the so-called amylene used by the late Dr. Snow, it was found to contain large portions of amylic alcohol and free chlorine. I stated that fact in 1859, and I was not astonished to find Dr. Thudicum, in the "Oration" of the Medical Society of London last month, stating that he had discovered the same thing, so that there has been really very little pure amylene experimented with at all in London. I remember one particular specimen, made at University College Hospital, and used extensively by Mr. Erichsen for some weeks; it seemed nearly devoid of smell, had a bland oily taste and appearance, yet, though I watched its administration with special care, as also the administration of the impure specimen, with chlorine, etc., at King's College, I cannot say that either exhibited any novel peculiarity, when compared to cautious small doses of chloroform. The patient readily regained consciousness under amylene, but because the patient was not deeply anæsthetic at all; the reason being that the amylene was more or less mixed with chlorine, amylic alcohol, etc. Dr. Thudicum, indeed, stated in his late address that the latter is highly poisonous! Aldehyde (in some measure analogous to amylene) has also been extensively administered by Poggiale and others as an anæsthetic, but it excites embarrassing dyspnœa, constriction of the throat, and cough; it produces marked anæsthesia; and the late Dr. Snow told me it was to obviate these symptoms he directed attention away from aldehyde to amylene, and once or twice expressed a wish to me that I should follow up both these anæsthetics if possible, as there are certain good points about them, as being fugacious in their effects, yet so perfect as anæsthetics for short operations, as on the eye, to wit, where chiefly they have been used in Germany. Aldehyde (if we are to believe Mulder), not alcohol, is the active agent in champagne, together with other delicate metamorphoses of amylene and fusel oil, hence its slight intoxicating qualities.

The odour of all the so-called amylene of the shops is such that it cannot be recommended in midwifery practice; some describe it as like onions: it is, perhaps, a mixture of this smell of onions and that of the naphtha of a very new india-rubber coat. Such "comparisons are odorous," but still we have to consult the *bienseances* in the sick room, and nothing that I have tried is so valuable and agreeable at the same time, as a quiet extemporised mixture of chloroform and eau de cologne on a handkerchief, without the balloons and amylene parachutes figured even in the

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last edition of the Gower-street Manual that invariably frighten patients. I have sometimes thought that amylene or nitrous ether, the latter especially, which lessens pain while preserving consciousness, acts beneficially on the cerebellum or pons, by exciting, for instance, in midwifery good uterine action and taking away pain; but the Royal Society now tells us all our theories on the cerebellum are wrong, and we must rest satisfied with watching the analysis of various cerebral actions by chloroform, and especially its influence so specific on the sensory ganglia. The cerebellum has no co-ordinating power or control over the sexual faculty at all, though some supposed actions of chloroform are visible in that direction, and of pure amylene, perhaps, we know very little.

The number of accidents from amylene have been painfully numerous, perhaps due to the free chlorine with which it was impregnated. Even in these days of inhaling oxygen and nitrous oxide, which are theoretically supposed to cure certain diseases, we cannot be too cautious in changing from chloroform to amylene; we should rather encourage the fullest study and observation of chloroform, for the more it is studied, the safer it becomes, especially in midwifery, where amylene, as your correspondent supposes, was at one time supposed to have some advantages, not since realised. I am, &c.

April 11. C. K.

On the Use of Cod-liver Oil.

By Jno. Atcherley, L.R.C.P. Edin. by ex., M.R.C.S. Eng., etc., Surgeon to the Liverpool Dispensary.

There is no medicine which more frequently thwarts the intention of the Medical man than cod-liver oil; this arises from the insuperable loathing which so many patients have to its taste and smell, or to the difficulty of retaining it on the stomach, or of digesting it in sufficiently large doses if so retained, creating a painful eructation and constant feeling of nausea, thereby destroying the appetite, and depriving both patient and Physician of the aid of a valuable agent.

I have made use of the subjoined menstruum for its ready exhibition during the last ten years, without, I truly believe, having heard of a single complaint of its disturbing the stomach, or of its being in any way offensive to the most fastidious palate; both the taste and smell of the oil are so completely disguised by being reduced to a smooth, pleasant, and digestible emulsion, that patients are surprised on being told that there is any oil in the composition they are taking:—

Take the yolk of one egg; powdered sugar, two ounces; orange flower water, one ounce; cod-liver oil, three ounces; essence of bitter almonds one drop. The egg and sugar should be well rubbed together in a mortar, the essential oil then dropped in, the orange flower water gradually added, and lastly the cod-liver oil, little by little, and the whole intimately mixed. One or two drachms of brandy will preserve it from change for weeks if required to be kept so long; the manipulation is so simple that patients or their friends are able to make it themselves.

22, St. James's-road, Liverpool, April 25.

COMMUNICATIONS have been received from—

Mr. James S. Brazill; Mr. Swann; Apothecaries' Hall; Inconnu; Western Medical and Surgical Society of London; Dr. Thudichum; Dr. John Atcherly; Mr. C. Vasey; Mr. W. Prowse; Justitia; Harveian Society of London; Royal Institution of Great Britain; University of Aberdeen; Odontological Society; Dr. Moon; Dr. W. B. Herapath; Dr. J. S. Bristowe; Hunterian Society; "General Council of Medical Education and Registration;" "M.D.;" Mr. R. Freeman; The "Carmarthen Welshman."

BOOKS RECEIVED.

Theory of Heat. By A. A. Harrison, M.B. Macmillan and Co. 1864.

*** The object of the author is "to show that the motion of the particles of matter, which must be caused in the processes of combustion and friction, is sufficient of itself to account for many of the phenomena of heat. Secondly, to raise the question, whether it is not sufficient to account for all? And thirdly, to mention some of the simplifications resulting from the supposition that this is the real nature of heat."

Remarks on a Proposed System of Sea Transport for Troops employed in India and China. By Charles A. Gordon, M.D., C.B., Deputy-Inspector-General of Hospitals. Serampore. 1864.

*** The object of Dr. Gordon's suggestions is the establishment of a sanitarium at or near Japan for invalids from the troops serving in China, and the more rapid removal home from our Eastern possessions of such as it seems necessary should return.

The Transversalis Pedis in the Foot of the Gorilla. By W. Thomson, Victoria, Australia. Reprinted from the *Australian Medical Journal*. January, 1864.

*** The general conclusion of the author is "that that theory which would deny the possibility of a derivative origin of a higher order of beings from the gorilla must be erroneous, in as far as it is deduced from the alleged absence of the *transversalis pedis* muscle."

Thirteenth Annual Report of the Wilts County Asylum for 1863.

*** Contains a record of a remarkable death from "Rupture of the spleen." The organ weighed 4 lbs. Av. "The exciting cause of the rupture appears to have been mental emotion, of the character of groundless fear."

On the Present System of Medical Education in England. By George W. Callender, F.R.C.S. London: Spottiswoode and Co. 1864.

*** This is another reply to Mr. Syme. The author advocates a minimum of alteration in the present system.

Summary of the Principal Points of Evidence relating to the Medical Relief of the Poor. By Richard Griffin, M.R.C.S. 1864.

*** Mr. Griffin is indefatigable in the task he has undertaken. This pamphlet consists of a series of replies to the evidence given by Mr. Cane before the Select Committee of the House of Commons on Poor Relief in 1861.

Lectures on the Laryngoscope. Part I. By Philip C. Smyly, M.D. Dublin: Fannin and Co. 1864.

*** A reprint of Dr. Smyly's very clear and able lectures from the *Dublin Medical Press*.

The Senses and the Intellect. By Alexander Bain, M.A. Second Edition. London: Longman and Co. 1864.

*** A good many alterations have been made in this work in order to bring it up to the present standard of physiological and mental science.

On Diabetes and its Successful Treatment. By John M. Camplin, M.D. Third Edition. By James G. Glover, M.D. London: John Churchill and Sons. 1864.

*** This little book has passed successfully through two editions, and the third had been prepared by the author before his death. All Dr. Glover has had to do with it has been to see it through the press.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 23, 1864.

BIRTHS.

Births of Boys, 1033; Girls, 967; Total, 2000.
Average of 10 corresponding weeks, 1854-63, 1847·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	690	694	1384
Average of the ten years 1854-63	609·6	582·4	1192·0
Average corrected to increased population..	..	..	1311
Deaths of people above 90	2	..	2

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	1	..	8	2	13	8	1
North ..	618,210	1	9	12	4	8	11	5
Central ..	378,058	3	6	8	1	11	11	..
East ..	571,158	..	11	10	2	13	13	1
South ..	773,175	2	9	12	5	14	17	2
Total ..	2,803,989	7	35	50	14	59	60	9

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·909 in.
Mean temperature	53·3
Highest point of thermometer	73·6
Lowest point of thermometer	35·5
Mean dew-point temperature	40·3
General direction of wind	Variable.
Whole amount of rain in the week	0·00 in.

APPOINTMENTS FOR THE WEEK.

April 30. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

Royal Institution, 3 p.m. Prof. Frankland, "On the Metallic Elements."

May 2. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

Odontological Society, 8 p.m. Meeting.

Royal Institution, 2 p.m. Anniversary Meeting.

3. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Anthropological Society of London, 8 p.m. Meeting.

Pathological Society, 8 p.m. Meeting.

Royal Institution, 3 p.m. Professor Marshall, "On Animal Life."

4. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m., Middlesex, 1 p.m.; London, 2 p.m.

Hunterian Society, 8 p.m. Mr. Couper, "On a Case of Vertical Dislocation of the Patella."

5. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m., Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Harveian Society of London, 8 p.m. Dr. Sisson, "On the Origin and Nature of Syphilis."

Royal Institution, 3 p.m. Mr. Hullah, "On Music (1600-1750)."

6. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Meeting of the Council.

Royal Institution, 8 p.m. Professor Roscoe, "On Indium, &c."

Western Medical and Surgical Society, 8 p.m. Practical Evening, for Cases and Specimens."

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DINNEFORD AND CO., PHARMACEUTICAL CHEMISTS,

Beg respectfully to inform the Medical Profession that they are now Dispensing Physicians' Prescriptions with the

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TO STUDENTS, SURGEONS, DENTISTS, AND OTHERS.

The Best House for Second-hand Instruments.

Where there is the Largest Stock in London, is Mr. WILLIAM LAWLEY'S, 78, FARRINGDON-STREET, CITY.
Army and Navy Regulation Cases, Pocket Cases, from 14s. each; Dissecting Cases at 8s. 6d. and 10s. 6d. each.
Photographic Lenses, Opera Race Glasses, and Telescopes, by the best London Makers.
Catalogue forwarded on receipt of Postage Stamps.

CHLORODYNE CHANCERY SUIT.

JANUARY 11th, 1864.

BROWNE AND DAVENPORT versus FREEMAN.

"It was fully proved and established in Court, before Vice-Chancellor Sir W. P. Wood, that Dr. John Collis Browne was the Discoverer of Chlorodyne.

"The Vice-Chancellor observed that Dr. J. Collis Browne's Chlorodyne was known before the Defendant 'Freeman' had ever thought of using the word; that the Defendant's conduct led to a very strong suspicion that there was a gradual course of proceeding on his part to mislead people into the belief that, when they bought his medicine, they were purchasing Dr. J. Collis Browne's Chlorodyne; and that, if the Plaintiffs could show that any one had actually been deceived, an Injunction would be granted."—*Times*, January 12.

Affidavits from eminent Physicians and Surgeons of the Metropolitan Hospitals proved, beyond doubt, that Dr. J. Collis Browne was the discoverer of Chlorodyne; that they prescribe it largely, and invariably mean the original Chlorodyne of Dr. J. Collis Browne.

An Affidavit by Mr. Warington, Chemical Operator to the Apothecaries' Company of London, also established the fact, that Dr. Browne was the inventor of Chlorodyne; that the Company receive large orders for the supply of Chlorodyne for the Public Service, Hospitals, Merchants, and the Profession; and that, when Chlorodyne is ordered, they invariably supply Dr. J. C. Browne's.

Affidavits from Messrs. John Bell, Pharmaceutical Chemists, 338, Oxford-street, and several leading Wholesale Druggists of London, to the same effect, and that, when Chlorodyne is ordered, they invariably supply Dr. J. Collis Browne's.

Sole Manufacturer—J. T. DAVENPORT, 33, Great Russell-street, Bloomsbury, London.

In Bottles, 1 oz, 3s.; 2 oz., 5s.; 4 oz., 8s.; 10 oz., 15s.

Neither Physician nor Surgeon in plaintiff's suit even mentioned Freeman's compound; so much for the *truth* of its being the *preferred* medicine, as stated by the defendant. It is equally untrue that the Vice-Chancellor intimated in the slightest degree that the defendant had the right to the sole use of the prefix Original, as quoted in his advertisement in the "Pharmaceutical Journal," March 1, 1864.

The observations of the Vice-Chancellor, as reported in the "Times," speak for themselves.

Each Affidavit from Physicians, Surgeons, and Chemists affirms that Dr. Browne's Chlorodyne was known to them in 1855; whereas the Defendant "Freeman's" Compound was not heard of until 1859, after the Original Chlorodyne had obtained world-wide fame.

THE ORIGINAL CHLORODYNE.

INVENTED AND MANUFACTURED, IN 1844, BY RICHARD FREEMAN.

By the decision of Vice-Chancellor Sir W. Page Wood, R. Freeman is entitled to the SOLE *right to use the word Original as a prefix to the word Chlorodyne.*

The large and still-increasing demand which the Inventor has for this therapeutic is evidence of the high estimation in which its properties are held by the Profession generally; and on a recent occasion a number of eminent London Physicians and Surgeons of long standing in the Profession, and who hold public appointments, made affidavits to the fact that Freeman's Original Chlorodyne is a more certain and reliable, a more valuable and a preferable, preparation to that of any other maker's. It is offered to the Profession as the best preparation of the kind, and at a price which allows the poorest sufferer to enjoy its extraordinary beneficial effects.

MANUFACTURED BY THE INVENTOR,

RICHARD FREEMAN, PHARMACEUTIST, KENNINGTON-ROAD, LONDON, S.;

And Sold by all Wholesale Druggists, in Actinic Glass Bottles, 1 oz., 1s. 6d.; 4 oz., 5s.; and 8 oz., 8s. 6d. each.

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ORIGINAL LECTURES.

LECTURES
ON THE CONSERVATION OF ENERGY.

By Professor HELMHOLTZ.

DELIVERED AT
The Royal Institution
ON APRIL 19, 1864.

Lecture V.

Ladies and Gentlemen,—The law of conservation of force has had a peculiar importance for physiology. Ever since the sixteenth century nobody has doubted that even the most complicated processes of inorganic nature were produced and directed by forces which acted in a merely mechanical way, following the law of blind necessity; nobody has supposed that the clouds, and winds, and rain, or the physical processes and chemical processes in our laboratories were produced by forces acting with any degree of arbitrariness or spontaneity; but the processes in living beings, in animals and plants, are so far more complicated, and go on under so different conditions, aud are so easily modified by the slightest influences, that it seemed rather doubtful that the processes of the bodily life of plants and animals could be directed by forces following such simple laws as the physical and chemical forces of inorganic nature. Such a supposition appeared, perhaps, too bold to be made by former physiologists. One supposed that the processes of animal life were directed and governed by a peculiar principle or agent. It was called by different names —the vital principle, the vital force, and so on; and it was supposed to be more similar in its nature to the soul of man than to the inorganic forces; at least, the characteristic qualities of this vital principle were supposed to be such as can only be ascribed to a soul. It was well known that physical and chemical forces are effective also in the interior of living bodies. Physiologists saw that the body is subject to gravitation—that it has its weight, and that this weight cannot be taken away by any influence of the vital process. And the more they looked into the interior mechanism of the physiological processes, the more they found that the known forces of chemical affinity, and the forces of hydraulic pressure, and the force of electricity were acting also in the interior of our nerves, and muscles, and organs. The common supposition was, that the vital principle which governs the whole body has the faculty of binding or loosening the effect of the actual forces —that it has the power arbitrarily to impede the actions of these forces, or to let them go on; and in this way it would be possible to produce a series of actions and processes which could not go on under the common laws of inorganic forces. We must say that the progress of physiology was very much retarded by these opinions, because, of course, if one was of the opinion that such and such a process of the living body was brought forth, not by conditions and forces acting of necessity in the way in which they acted, but that there was a sort of arbitrary choice between different ways, and that the vital principle had the faculty of meditating, of choosing different ways for its action, and determining at last that it would act in such and such a way,—if one held such suppositions, of course every explanation of these actions which went further into the mystery of these processes—every real explanation—was impossible; and physiologists were obliged, or thought themselves obliged, to observe only the facts as far as they could. The modern great development of physiology depended principally upon the supposition, that in the interior of living beings those same forces were acting which we know already to be acting throughout organic nature. Now, it was necessary to define the difference between these two opinions with regard to the nature of the vital principle, to define them as accurately as it could be done, in order to come to a clear insight into the nature of organic life. It has thus arisen that two physiologists, Dr. Mayer at first, and some time later myself, came to the same law of the conservation of energy, which had been found already from other technical and physical considerations by the engineers and physicists. It was the aim of our investigations to find a character of inorganic forces which gave the possibility of determining exactly if in the interior of the living animal body other forces were acting than those of inorganic nature, or forces subject like those of inorganic nature to the laws of blind necessity, without arbitrariness in their manner of acting, and without spontaneity; and really the law of conservation of energy has determined such a character of natural forces as is not consistent with the so-called vitalistic theory of organic life—with the supposition that forces are acting in the interior of our body, the action of which can be arbitrarily impeded or freed. You will see easily that if it was possible, by the action of the vital principle, to take away the force of gravity for some time from our limbs, and then again to let it free, so that it produced its action, then we could use the force of gravity to attract our arm to the earth and produce work by that; and then we could again take away the force of gravity from our arm, and raise the arm without doing any work at all, and then, again, let the force of gravity act, and let the arm again sink down and again do work. If this theory of the vitalistic school was right, then the organism would be capable of producing work of an infinite amount from nothing. You see, therefore, that by the law of the conservation of energy it can be determined if the forces acting in the living body are subject also to the same kind of laws as the forces in inorganic nature; it would not follow that in the interior of the living body other natural forces may not be acting than in the inorganic world. There might be, perhaps, a peculiar kind of imponderable matter, like ether or electricity, acting in the interior of living beings; but as soon as those forces are subject to the same kind of laws as the inorganic forces, if the actions produced by such hypothetical imponderable matter depend only on the conditions under which they were acting, and not upon any arbitrariness or any spontaneity, then they would be subject to the law of conservation of force, and that would have the same effect.

Now, we have seen already that by the life of plants great stores of energy are collected in the form of combustible matter, and that they are collected under the influence of solar light. I have shown you in the last lecture that some parts of solar light—the so-called chemical rays, the blue and the violet which produce chemical actions—are completely absorbed and taken away by the green leaves of plants; and we must suppose that these chemical rays afford that amount of energy which is necessary to decompose again the carbonic acid and water into its elements, to separate the oxygen, to give it back to the atmosphere, and to collect the carbon and hydrogen of the water and carbonic acid in the body of the plant itself. It is not yet possible to show that there exists an accurate equivalent proportion between the power or energy of these solar rays which are absorbed by the green leaves of the plants, and the energy which is stored up in the form of chemical forces in the interior of the plants. We are not yet able to make so accurate a measurement of both these stores of energy, as to be able to show that there is an equivalent proportion. We can only show that the amount of energy which the rays of the sun bring to the earth is completely sufficient to produce such an effect as this chemical effect going on in the plants. I will give you some figures in reference to this. It is found that in a piece of cultivated land producing corn or trees, one may reckon per year and per square foot of land ·036 lb of carbon to be produced by vegetation. This is the amount of carbon, which during one year, on the surface of a square foot in our latitude, can be produced under the influence of solar rays. This quantity when used as fuel and burnt to produce carbonic acid, gives so much heat that 291 lbs. of water could be heated one degree of Centigrade. Now, we know the whole quantity of solar light which comes down to one square foot of terrestrial surface during one second, or one minute, or one year. The whole amount which comes down during a year to one square foot is sufficient to raise the temperature of 430,000 lbs. of water by one degree. The amount of heat which can be produced by fuel growing upon one square foot during one year is, as you see from these figures, a very small fraction of the whole amount of solar heat which can be produced by the solar rays. It is only the 1477th part of the whole energy of solar light. It is impossible to determine the quantity of solar heat so accurately that we could detect the loss of so small a fraction as is absorbed by plants and converted into other forms of energy. Therefore, at present, we can only show that the amount of solar heat is sufficient to produce the effects of vegetable life; but we cannot yet prove that there is a complete equivalent ratio.

Animals, and some cryptogamic vegetables which live in the dark, take in those combustible substances which are produced by plants, and take in oxygen, and combine them again in

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their body into carbonic acid and water. All the food which animals take in is derived from plants. Some animals feed directly on plants; other animals eat those herbivorous animals; so that the food of the carnivora is derived, in the last instance, from the vegetable kingdom. Cattle which eat grass, and digest it in their ample stomach and very complicated bowels, are, indeed, only collecting those small proportions of albuminous matter of starch and sugar which are contained in the grass, and which are too widely distributed and mixed up with matter which our own organs could not digest; therefore they collect for us those particles of food which are contained in the leaves of plants, trees, and grass, and so on. In connexion with this circumstance, that all the food of animals is taken from the vegetable kingdom, I may mention that the chemical composition of the bodies of plants and animals shows a very wonderful agreement which is really astonishing, if one has looked hitherto only to the great difference of external appearance, and even to the great difference of taste—to the great difference which the interior parts of plants and vegetable food and animal food offer to our senses. But the principal part of the mass of animal food and vegetable bodies is composed nearly of the same materials. The chemical molecules of which the bodies of living beings are composed have a very complex composition. I have here the chemical formulæ of several of the principal compounds which are contained in living beings. You know that chemists have called an arbitrary mass of hydrogen the unit of hydrogen. It is an arbitrarily chosen quantity, and is represented by the letter H, and the quantity of oxygen which combines with this hydrogen is called the equivalent of the unit of hydrogen, and is expressed by the letter O; and the quantity of carbon connected with one equivalent of oxygen, and forming carbonic oxide, is expressed by the letter C. Now, the greater part of the substances contained in vegetable and animal bodies is composed of these three elements. There is a fourth element, nitrogen, which combines with the others which I have named, the equivalent of which is expressed by the letter N. We have here the chemical formula for water. It is an equivalent of hydrogen to one of oxygen. In carbonic acid we have one of carbon and two of oxygen. In ammonia, which is the principal source for affording the nitrogen to plants, we have one of nitrogen with three of hydrogen. These are very simple ratios. I have also the chemical formulæ for some compounds of our food and of vegetable and animal bodies. Here is the composition of grape sugar, which is contained in grapes and in honey, and which can also be produced from starch. We have here sugar made artificially from starch, and also honey-sugar, extracted from honey. The formula of this sugar is far more complicated—12 C, 12 H, 12 O. Cane-sugar is nearly the same—12 C, 11 H, 11 O. Cane-sugar is usually crystallised, as you know, in large crystals, as in candy sugar. Starch is the principal compound contained in flour and potatoes, and it is this that makes the flour of different kinds of corn and potatoes so valuable as food. The composition of starch is 12 C, 10 H, 10 O. You see, therefore, that these substances, which are the simplest of their kind, have a far more complicated formula, and present far larger numbers, than the compounds of inorganic chemistry. You see here the formulæ of fatty substances, the principal fats which are found in different organic bodies. Many of the seeds of plants contain fat; it is deposited there as a kind of food for the young plant; it is, indeed, the most concentrated kind of food which we can get—at least, for giving carbon and hydrogen to the organic body. You see here numbers higher than a hundred—114 C, 110 H, 12 O—which is the formula for stearine. These two fats, stearine and palmitin, are solid in the common temperature; while this olein is fluid. Fluid and solid parts are commonly so mixed up in the interior of the body that the mixture is of a soft nature, neither quite solid nor quite fluid. In cold-blooded animals and plants we find a greater amount of olein, and in warm-blooded animals we find a greater amount of stearine and palmitin. Then we have an extended mass of nitrogenous substances, which form principally the matter of which the animal body is built up. You see here the chemical formula of albumen—one of the principal combinations of that kind. It has a far greater number of atoms than inorganic combinations; yet this formula is the simplest to express its composition. These substances we find spread throughout the whole kingdom of animals and planta. The principal mass of vegetable bodies is composed of substances containing the class called hydrates of carbon, because hydrogen and oxygen are combined in the same proportion as in water. We have here sugar, starch, gum—substances of which the cells are formed in vegetables—gum made from starch, and dextrine, and gum arabic, and other substances of similar composition, several of which can be transformed into each other. Thus we can transform starch, which is insoluble in cold or warm water, by boiling it with sulphuric acid into this kind of gummy substance—dextrine, or starch-gum; and boiling it further with sulphuric acid we get at last starch-sugar, which is identical with grape-sugar, or the sugar of honey. So the common cane-sugar can be transformed into grape-sugar. Nothing is altered by this transformation but the amount of those elements which are the elements of water. These substances are found also in the body of animals, not in great quantity, but you find them everywhere in small quantities. There is a rather large quantity of sugar contained in the liver of men and animals. Another kind of sugar, the so-called Inosite, is contained in flesh; and some traces of sugar we find also in the blood, and in the yellow part of the egg. Then we find a peculiar substance, which is very similar to the starch of plants, in the liver; and in the liver the same transformation is going on continuously that we can produce artificially. The starchy substance is transformed into sugar, which passes into the blood, and is afterwards burnt in the lungs. We find small traces of these substances also in animals; and our food contains always great quantities of these substances, sugar, gum, starch, as often as it is taken from the vegetable kingdom. Fats and oils are found in vegetables, but, as I said, principally in the seeds of plants, where they are a store of food for the new plant which is to grow from the seed. They are far more diffused in animal bodies, which contain always a great store of fats. Albuminous substances form a large proportion in the composition of the animal body. We find albuminous substances, like the so-called albumen, in the egg, in the blood, in the flesh, in the brain, in the glands, and so on; and we find the same substance in those parts of vegetables which are still growing and developing, the construction of which is not quite finished. Therefore, all the green parts of plants which are vegetating contain small quantities of albuminous matter. A greater quantity of albumen, or of similar substances, is deposited in the seeds of plants; and therefore the seeds of plants are of peculiar importance for our food. They are the richest food which animals and men can get from the vegetable kingdom, because these nitrogenous substances, of which we want to have a great amount, are diffused only in small quantities in the other parts of vegetables. It appears very improbable that this same matter, albumen, which we know so well in the egg, should be contained also in other substances which we use as food; but it can be easily shown that it is also contained in flesh and flour. I have here a quantity of wheat flour which has been infused in water and standing some days. The water has been taken away and cleared by filtration. Here is also a quantity of flesh, beef, cut into small pieces; it has also been infused with water, which has been separated by filtration. You see, it is coloured by the red pigment belonging to the substances of the flesh. Here, in a third vessel, we have some water mixed with albumen taken from eggs. I can easily show you that all these fluids contain albumen. You know that the characteristic property of the albumen of eggs is, that it is soluble in water, but that when the solution is boiled the albumen is coagulated and becomes insoluble in water. You know that eggs when boiled become solid; the albumen cannot afterwards be dissolved in water. This is a very characteristic property of albumen which is not found in any other substances; so that we can use this peculiarity to recognise the presence of albumen in any mixture of organic fluids. All that we have to do is to boil it. The reaction does not always take place, if the quantity of albumen is very small, and if there is a small quantity of alkali in the fluid; we make the reaction more certain if we add a small quantity of nitric acid. Nitric acid also produces a peculiar effect on the albumen and similar substances by colouring them yellow; and this yellow colour is exalted if we saturate the nitric acid by some ammonia. You observe that this liquid containing the albumen of eggs becomes turbid and opaque as I heat it. I now add some nitric acid, and you see that the water is coloured a light yellow. By pouring in some ammonia to saturate the nitric acid, the light yellow is changed into an orange. Now, I take the liquid containing the soluble substances of wheat flour; I add the nitric acid to it, and you see it becomes opaque; and if I boil it, we have the same yellow colour as before. You have here the proof that common wheat flour contains a quantity of albumen, which can be dissolved

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by water. The albumen contained in the flour of corn is of great importance as food for men and animals, because in this way we get a certain amount of albuminous substance to build up the organs of our bodies. This is the substance which we call albumen, or the white of egg, because we have it in its purest form in the egg, and because it is mixed with other substances in other organs of the animal body or the body of plants. You will observe it is the same with the fluid from the flesh. We cannot make the experiment to produce the yellow colour, because the fluid is already coloured red, and the natural red colour becomes black by nitric acid. You observe that there is a deposit of coagulated albumen on boiling; indeed, if we take a piece of beef, and pour cold water upon it, and then put it upon the fire to boil, a white substance is separated on the top of the pot, which is taken away by the cook. This substance is coagulated albumen.

Now, these peculiar substances, which are of so complicated a composition, and of which organic bodies are built up, are also remarkable for their great alterability, if that is a correct expression. They are changed by the slightest influences. Inorganic compounds are very stable. You cannot destroy water but by very effective means and very powerful forces, such as the force of a galvanic current, or very intense heat, or very intense chemical affinities; but these compound bodies, which are of so complicated a composition, can be destroyed by very slight influences; and this is the great difficulty of chemical investigation into their nature. They may be compared with a building composed of a great many loose stones. I have here, as you see, a number of cubes, which represent chemical atoms. They may be so placed together as to form a very solid compact mass, or I may pile them one above the other, so that they are only just in equilibrium, and the slightest touch will cause them to fall down. Now, you may suppose that the molecules of sugar, fat, and albumen, which contain more than two hundred elementary atoms, are built up in that way, like an artificial building of loose stones, put together in a very unstable equilibrium; so that a very slight influence, any attraction of one of the atoms by some foreign matter, will destroy the whole construction of the molecules, so that they fall in pieces, or the single parts become united into simpler and more stable compounds, such as carbonic acid, and water, and other simpler combinations. This peculiarity of organic compounds is exhibited principally by these peculiar chemical processes which we call fermentation and putrefaction. We have here such a case of fermentation. In this vessel there is a solution of sugar. If the solution of sugar is alone in a closed vessel, without mixing with any other substance, we may keep it for several days, or weeks, or months; the purer the sugar is, the longer it remains unaltered when it is dissolved in water. I have put to the sugar not a very strong chemical agent, but a little yeast, which contains at first the cellular tissue of plants,—it is, indeed, a minute plant—some starch, sugar, and albuminous matter. Under the influence of the albuminous matter which is contained in the yeast, the sugar begins to be destroyed and to be decomposed into carbonic acid, which goes away, and which you see has filled the tube of glass, and alcohol. Now, if we take the formula of grape sugar—twelve carbon, twelve hydrogen, twelve oxygen—and if we let four equivalents of carbon be burnt with eight parts of oxygen of the sugar itself, there will then remain eight equivalents of carbon, twelve of hydrogen, and four of oxygen; and that is like two equivalents of alcohol, the formula of which is $4C,5H,O+HO$. Therefore we have here some internal combustion of the sugar; some of the carbon of the sugar burns with some of the oxygen, and the rest which remains is alcohol. I beg you to observe that the decomposition of the sugar goes on under the influence of albuminous matter. It would require an extremely small quantity of yeast to destroy the whole of the sugar if we had time enough. If we take more yeast the decomposition will go on more swiftly. This fermentation of sugar will give us a very good illustration of the processes going on in the living body, of which we have to speak in the next lecture.

You see, then, that combustible substances—indeed, substances of quite the same nature as those contained in our body—are introduced with our food, which contains sugar, starch, fat, and several albuminous matters. The number of albuminous matters contained in the vegetable kingdom is very great; there are many different kinds of them. Thus we have gluten and albuminous matter produced during the fabrication of starch; casein, which is contained in milk, and is the principal substance of cheese; and we have here dried the albumen of eggs. These are introduced into our stomach and there dissolved by a kind of fermentation going on under the influence of the gastric juice, and afterwards taken up by the blood-vessels and the lymphatics. In the same way, the sugar which is introduced into our digestive canal is dissolved and absorbed by the vessels. Starch is transformed at first, by the influence of saliva and the secretions of the bowels, into grape sugar, and is afterwards absorbed in its soluble form. Fats are only finely divided in our stomach and intestines; they are divided into very fine drops, which are mixed with the watery masses contained in the bowels, and are taken up into the lymphatic vessels. They are brought into the same form as that in which they are contained in milk. Milk, indeed, is a fluid, a watery solution of sugar and casein, in which a great number of small globules of the fat of butter are suspended. Milk, therefore, represents the state of the fine division of the fats in which they are taken in by the lymphatic vessels. They are not carried immediately into the circulation of the blood, because they are obliged to pass through different glands. The blood-vessels of the intestines are collected together into one great trunk, which carries the blood into the liver, and all the blood which contains these digestive substances is obliged to pass at first through the liver. It appears that some of the substances so taken up are retained in the liver, and pass only gradually in small quantities into the blood before being used further. The substances which are taken up by the lymphatic vessels are carried through the so-called lymphatic glands of our abdomen, and are there transformed in a peculiar way, and afterwards they pass through the great lymphatic vessels into the blood. So at last all those combustible substances which we take up as food are carried into the blood, and by the blood to all parts of our body in which the blood-vessels are spread out.

Now we take in not only combustible substances, but also gas. Oxygen is taken in by the lungs, which are of a spongy texture, and contain a great number of very fine blood vessels, through which the blood flows. The blood which comes through the lungs is of a very dark colour, such as you see in this vessel. I have here a small quantity of the blood of an ox in a vessel filled with carbonic acid. The blood has taken up the carbonic acid, and you see how dark the colour is. I have another vessel filled with oxygen, into which I have put the same kind of blood, and you will observe that the colour is scarlet red. This difference is produced by the two gases. If I put the dark blood into a vessel filled with oxygen, you observe that it becomes light; and if I put the lighter blood into another vessel containing carbonic acid, you see that it assumes a darker hue. You see, therefore, that blood is able to take in quantities of gas, and that the nature of these gases contained in the blood is indicated by the change of colour. I can show you that these gases contained in the blood can be separated again by means of an air-pump: for, as soon as the air is removed, you will observe that gas bubbles rise from the blood. [Experiment.]

CLINICAL LECTURE
ON FLEXIONS AND VERSIONS OF THE UNIMPREGNATED UTERUS.

By W. O. PRIESTLEY, M.D.,
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GENTLEMEN,—The uterus, both in its unimpregnated and gravid condition, is liable to certain deviations from its normal position; and I propose in this lecture, without going at length into the whole details of the subject, to make a few practical remarks on flexions and versions of the womb, in connexion with the case of a patient under treatment in the Hospital.

I may explain that the displacements of the entire organ, backwards or forwards, are termed respectively retroversion and anteversion, according as the fundus uteri is thrown posteriorly towards the sacrum, or anteriorly towards the symphisis pubis, the os and cervix lying in the opposite direction. The instances in which the womb is bent upon itself, after the fashion of a chemical retort, posteriorly or anteriorly, are called distinctively retroflexion and anteflexion. The symptoms and treatment of all are, with certain modifications, practically the same, but for various reasons it is desirable to distinguish between them.

The existence of these displacements is often traced back to labour or miscarriage, or to some attack of uterine congestion, which rendered the fundus heavier than its supports could

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bear. Occasionally a fibroid tumour in the uterine walls, or an ovarian tumour above, bears down the entire uterus lower into the pelvis than its normal site, and at the same time flexes the fundus on the cervix. In some instances where there is no enlargement, mere relaxation of the ligaments, combined with habitual constipation, is sufficient to account for the deviation of position; while in others, the first symptoms are attributable to a fall or other accident. There is reason to believe that, in some cases, anteflexion in the adult is owing to the persistence of an earlier degree of development, the uterus in the fœtus and during infancy being commonly found anteflected.

The study of uterine displacements is avowedly a difficult one, and the mind of the student cannot but be perplexed by the different and, indeed, antagonistic opinions entertained by writers of authority regarding them. Thus, while some distinguished teachers hold that deviations in the position of the uterus are a fertile source of pain and inconvenience to patients, another refuses to recognise as pathological facts the existence of such mal-positions; and an eminent Professor of Surgery, not long ago, in alluding to them, evidently regarded them as the creations of ingenious Practitioners, intended to amuse fanciful and credulous patients. The reason of this divergence of opinion is no doubt partly traceable to the very variable symptoms experienced by patients who are the subjects of these affections. Observation clearly proves that some patients who have flexion or version of the womb suffer little or no inconvenience from it; the existence of the displacement perhaps being discovered accidentally. In others, the amount of suffering associated with displacement is very great, and seems altogether out of proportion to the supposed pathological cause. Constant and depressing pain in the lower part of the abdomen and back, shooting down the lower limbs, and leading the patient to believe she cannot walk; difficulty and pain in defæcation; irritation of the bladder, or retention of urine; sympathetic nausea and chronic vomiting; headaches, and neuralgia in distant parts of the body; dysmenorrhœa and menorrhagia in varying degrees, and various hysterical phenomena. These symptoms may be present singly or together,—the presence or absence of any one of them not always being distinctly traceable to the variety of displacement which is present. I have seen more than one case of retroflexion in which the patient suffered from obstinate chronic vomiting, and such severe continued pain in the hypogastric, iliac, and sacral regions, that progression became almost impossible; she could at last no longer be persuaded to leave her couch, and became a permanent invalid. The suffering face and emaciated lower limbs seemed to preclude the idea that any effort on her part could have overcome the indisposition to move; and yet no other cause could be ascertained beyond the malposition of the womb.

My own observation does not enable me to state whether the displacement of the fundus backwards or forwards produces the greater inconvenience, but retroflexion and retroversion are more frequently observed than anteflexion and anteversion, and retroflexion is more commonly met with than retroversion. The order of frequency is mainly to be accounted for by the anatomical arrangement of the parts. The freedom of the posterior wall from attachments and supports renders the fundus more liable, particularly when it is enlarged, to be borne backwards by the superincumbent weight of intestines, and to be pushed further downwards into the retro-uterine cul-de-sac by the transit of fæcal matter through the rectum. The anterior wall, on the other hand, is better supported by the arrangement of its ligaments and by its attachment to the bladder; and we may readily suppose that the filling of the bladder in the ordinary performance of its functions, by exercising pressure upwards and backwards, has a natural tendency to rectify anteversion and anteflexion when they are accidentally produced. Again, the more frequent occurrence of retroflexion than of retroversion is explained by the greater mobility of the fundus as compared with the cervix, which is sustained by dense ligaments both anteriorly and posteriorly.

It is by no means easy to account for the varying amount of discomfort associated with flexions and versions of the uterus, and the difficulty is increased by its having been remarked that the same train of symptoms may be associated with other and dissimilar affections of the organ, and that not unfrequently when the displacement had been remedied the inconveniences supposed to be produced by it were not removed. The knowledge of these facts has led M. Scanzoni and Dr. West in his excellent book on the "Diseases of Women" to suggest that, in the majority of instances, the symptoms were less owing to the displacement *per se* than to some superadded morbid changes in the structure of the womb itself. The reason why one patient suffers little or nothing from uterine flexion or version, while another experiences such grave local and general disturbance of the system, being that in the one case the uterus though displaced remains healthy; in the other there is not only misplacement, but besides uterine congestion or inflammation with its results, or some other form of uterine disease.

The patient in King's College Ward whose presence there has led me to bring this subject before you, in some measure illustrates and confirms this position.

On her admission the uterus was not only flexed, but enlarged, and exquisitely tender to the touch, and she had such local and general discomfort that she was quite incapacitated from following her avocations. As the congestion and tenderness subsided under appropriate treatment, the symptoms became less urgent, and she is about to leave the Hospital in all respects much improved, but with the womb still in a great degree flexed. At first the pain inflicted merely by a digital examination was so considerable that it was not deemed advisable to perfect the diagnosis by the introduction of the uterine sound, and the fundus uteri in its bent position was so immovable as to create a suspicion that it was bound down by fibrinous adhesion in the retro-uterine cul-de-sac. At a later period, however, when the use of the sound became justifiable, I was enabled to lift up the uterus into its natural position, but it fell back again as it commonly does, almost immediately after the withdrawal of the sound.

The explanation offered by M. Scanzoni and by Dr. West, while it meets the difficulty in a considerable number of instances, nevertheless does not apply to all cases. A certain number of patients apparently suffer much from the results of uterine displacement without having the womb in any degree enlarged or even sensitive to the touch, in whom, indeed, the uterus seems endowed with a less degree of sensibility than under ordinary circumstances—the introduction of the sound and other manipulations being borne better than in health. In patients with retroflexion it has been supposed that the fundus uteri exerts painful pressure on adjacent parts, and particularly on the sacral flexus of nerves, thus affecting the nervous supply of the lower extremities. But we must look further than this for the cause of suffering in some of those who suffer most from retroflexion without disease of the uterus; and this I believe is often to be found in the condition of the ovaries. The same relaxation of tissue which permits retroflexion favours also prolapsus of the ovaries into the retro-uterine cul-de-sac, and when the uterus falls backwards on account of increased bulk and weight, it is very likely to pull down the ovaries with it. Overlaid thus, singly or together, by the retroflected womb, their circulation is impeded; they are apt to become congested and enlarged, and are still further irritated by the contents of a constipated bowel, and by the effects of accidents to which they are exposed in this abnormal position. The frequency of pain referred to the ovarian region in the subjects of retroflexion has been often remarked, and it has been repeatedly noticed how often prolapsus and congestion of the ovary are associated with retroflexion. In many of these cases pressure with the index finger on the uterus may give comparatively little pain, but the slightest touch of the ovary produces a paroxysm of suffering, followed, perhaps, by aching for some time afterwards. I have fancied that instances of this kind might be compared with those of neuralgia of the testicle in the male subject. Prolonged and severe pain in this gland has a very large proportionate influence in impeding nutrition, and in producing physical discomfort and mental wretchedness. Whether this analogy holds good or not, I have no doubt that the distressing symptoms in some cases of retroflexion are rather due to a morbid condition of one or both ovaries associated with displacement, than to the displacement itself, or to displacement combined with some morbid condition of the uterus.

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For the purposes of diagnosis the uterine sound is of great value. By carefully passing it into the womb we may ascertain the direction of its cavity, and in many cases by its assistance be able to raise up the fundus, thus restoring the uterus to its natural position, and causing the tumour formed by the displacement to disappear. In this way we are able to distinguish flexions and versions from other pelvic tumours to which they may bear a resemblance. Certain cautions are, however, necessary in using the sound. Thus, it is certainly

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better to be content with the diagnosis so far incompleted than to persist in using the uterine sound when its passage would inflict much pain at the time and suffering afterwards. Moreover, it should be remembered that whenever the deviation has been of long standing the uterus may have become tied down in its abnormal position by inflammatory adhesions on its peritoneal surface. This is well shown in a preparation of retroflexion recently presented to King's College by Dr. Day. Under these circumstances we may ascertain by the sound the direction of the uterine cavity, but to use such force as to break up the adhesions with the object of restoring the uterus to position would be to inflict grievous and perhaps fatal injury. Further, Virchow, Scanzoni, and others have pointed out that in cases of prolonged retroflexion, the cervical canal becomes extremely contracted at its upper extremity, and this contraction obstructs the introduction of the sound. The difficulty in passing the sound in some instances arises, no doubt, from the canal being bent upon itself in the general displacement of the womb, and we may often materially assist the passage of the instrument by lifting up the fundus with the finger, and thus lessening the degree of incurvation. But the authorities named have shown that in protracted cases there is an organic narrowing of the canal at the situation of the os uteri internum, produced by atrophy of the posterior wall at the seat of flexure. The wasting of the uterine substance at the point indicated is probably owing to the continuous pressure which has been exercised upon it, and the womb is here sometimes reduced to such a degree of tenuity that a sound might readily be pushed through it in attempting to reach the cavity, unless this pathological fact be borne in mind and proportionate care exercised. One patient I have seen who for years had suffered from retroflexion, and in whom I had reason to believe that not only atrophy of the posterior wall had been produced, but that wasting had further resulted in permanent shortening of the uterine cavity. The displacement had apparently been produced by a fall from a horse. I saw her in consultation some time afterwards, and passed, with difficulty a sound two and a-half inches into the uterine cavity. Two years later she had not improved, but was then a confirmed invalid; and, on examination, it was found impossible to introduce the sound quite two inches. A subsequent use of sponge tents, by which the canal was well opened, and its condition carefully ascertained, proved that the womb had undergone a general atrophy, its walls were everywhere very thin, and it was further proved that the difficulty in introducing the sound, which had been attributed to some contraction of the canal, was really due to organic shortening of the uterine cavity, consequent, probably, on absorption and shrinking of the posterior wall.

(To be continued.)

ORIGINAL COMMUNICATIONS.

RADICAL CURE OF INGUINAL RUPTURE.

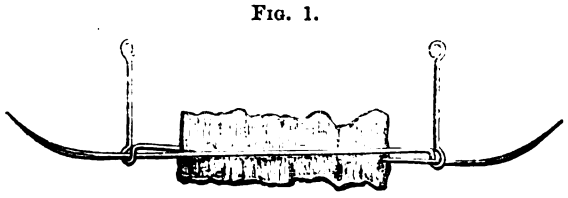
By JOHN WOOD, F.R.C.S.

Operation by Pins.—This operation I use in cases of congenital hernia, and those of small size in lads and young men. In such cases, when the hernial canal is narrow, its sides yielding, and easily and completely approximated, there is no need of any intervening substance to fill up the hernial gap. The tissues also are thin and comparatively unaltered, and permit of an accurate examination, by the finger, through them when invaginated into the canal.

The apparatus used in this operation is very simple, and no incision through the skin is required.

The pins I employ are of various sizes—from three to five inches long, hardened at the point, but made in the shaft so that they will bend a little rather than break off short.

Fig. 1.



They are spear-pointed, curved boldly near the point like a suture needle, flattened on the concavity, with slightly cutting edges, and with a rounded shaft. At three or four inches from the point the shaft is bent into a right angle and twisted into a loop large enough to receive the point of a fellow needle. The projecting end is about an inch long, terminating in another loop for the purpose of being held by the dressings. See Fig. 1. When applied, the pin should be held by the middle of the shaft between the thumb and long finger, the end of the forefinger being placed upon the bent extremity. They are applied in opposite directions through the structures intended to become adherent, and are pinned through and through like an ordinary toilet pin. Each point is then passed through the angle loop of the fellow pin, and the ends then rotated in opposite directions, so as to twist up the confined tissues, and fixed by straps of plaster and pads.

The patient being laid on his back with the knees and shoulders raised, the scrotum is first invaginated into the canal, and the relative positions of the cord, the conjoined tendon, and Poupart's ligament carefully noted. In small cases this can be most conveniently done with the little finger. The finger should be carried as far up as possible, so as to fill in front of it the lower border of the internal oblique muscle, and to the inner side of it the conjoined tendon. The skin of the groin being then drawn directly inwards by an assistant, the needle is carried with its concavity outwards and downwards through the tissues directly upon the inside of the nail of the invaginating finger (see Fig. 2). The point

Fig. 2.

then turned downwards towards the pubis, and pushed steadily after the invaginating finger as it is slowly withdrawn, protecting the needle on the outer side. As the needle passes over the pubis it is made to take up the fibres of the internal pillar attached to that bone, grazing the bone as it does so. The needle and finger must be kept fairly together, the two last fingers of the hand resting firmly upon the groin over the deep ring. This gives steadiness to the hand, and, at the same time, by its pressure, keeps the bowel out of the canal. The point of the pin is then to be cut off with a pair of pliers. The second pin is then taken, and its point, with the concavity directed forwards, passed into the aperture through which the first emerges in the scrotum. The invaginating finger is then placed below it, and passed up into the canal, carrying the pin before it till it touches the middle of the back surface of Poupart's ligament. Through this the pin is then pushed upwards and outwards till it can be seen to raise the skin (see Fig. 3). This is then drawn inwards by

Fig. 3.

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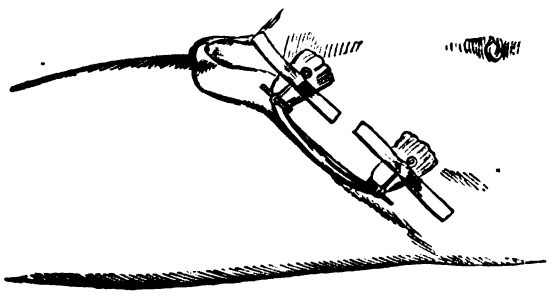
the assistant until the point of the pin can be pushed through at the same place at which the first pin entered. The pins are then locked, after which the point of the second pin is to be cut off conveniently close, and one of the bent ends of the pins twisted over the opposite side and held down by a pad of lint and a strap of adhesive plaster. A strip of oiled lint is then twisted round the pins where they lock, so as to protect the skin from their pressure somewhat (see Fig. 4). The whole is then retained by a pad and spica bandage.

Fig. 4.



In this operation the conjoined tendon and inner pillar are transfixed by the first pin, which thus traversed the inner and hinder part of the hernial canal and sac, while the outer pillar is fixed at Poupart's ligament by the lower pin. The whole of these parts, with the hernial sac, are twisted together by the revolution of one pin round the axis of the other, so that the hinder wall is drawn forcibly forwards and outwards, and the front walls backwards and inwards till the canal is firmly closed. The cord lies behind the pins, closely embraced by the twisted tissues. Adhesion takes place between the parts in their new position, following up closely (if the case does well) the slow ulceration in the course of the pins. These are kept in a week or ten days, according to the amount of fibrinous effusion which takes place in the canal. About that time a thick firm mass of deposit occupies the course of the pins, excluding the bowels, filling up the sac, and uniting all the twisted tissues into a solid mass. When the pins are withdrawn, simple water dressing or a poultice may be applied. As the wound heals, a stout pad should be applied over the dressings, and held in its place by a bandage firmly applied. When the openings have sufficiently healed, a horseshoe-pad truss should be applied, with a bit of cotton wool or lint between it and the skin to protect the tender skin. Until this time the patient should be kept in the recumbent position. After the truss has been applied, he may be suffered to get up.

If, in the course of the treatment, the testicle becomes much swollen, all bandages and pressure should be removed, and cold water or evaporating lotion applied. Some degree of swelling of the testicle is beneficial, rather than otherwise, as showing a sufficiently close embrace of the cord, and, consequently, obliteration of the canal. The pins usually are withdrawn with great ease and very little pain. The patients ordinarily suffer so little, that food is taken in the usual way a day or two after the operation. I seldom find it necessary to employ a stricter regimen than milk diet for the first few days. As the wound heals, an allowance of wine or beer may be permitted, and the general health of the patient supported as much as possible, to ensue a more vigorous reparative formation in the parts.

In some cases I have applied the pins transversely to the canal, especially where, as in cases of a large size and direct kind, the rupture shows a tendency to emerge behind the cord, lifting it forwards and pushing it outwards. In some of these very large cases it has been necessary to repeat the operation in order to meet this tendency. Wire has also been applied transversely under these circumstances. It is important in such cases to make the deeper pins or wire touch or graze the upper border of the pubis, over which the rupture emerges. By establishing a bridge of adhesion there, this tendency is better counteracted.

In the case of a child, aged 3 years, now in the Hospital, a very large rupture, reaching half-way down the thigh, and totally unmanageable by any kind of truss, has been very successfully treated. No impulse whatever is now felt on crying, and the large sac can be felt doubled up in the scrotum, and forming a hard tumour, connected above with the pillars of the ring and canal. The child's health and appearance have positively improved during the time that he has been under treatment. I have found it very advantageous in this and other large cases to keep the child's head and shoulders laid a little lower than his body and legs. This diminishes much the force with which the rupture presses from above upon the newly-formed adhesions. In these large cases the ring truss pad, described in a former paper, will be found to give a more direct and efficient support to the adhesions. At the same time it does not press upon the structures which fill up the hernial gap in the abdominal walls. The sides of the inguinal canal and the pillars of the superficial ring, already closed up by the operation, are kept in position by the pressure of the ring or horse-shoe truss-pad. The first complete closure and obliteration is effected by the operation, and the truss, by supporting properly the newly-formed tissues, during some months after the operation, completes the cure.

I have kept cases treated upon this plan in view for two or three years, the rupture remaining perfectly cured up to the present time, without any truss being worn after the first six or eight months. The growth and development of young subjects assist powerfully in rendering the resistance to reprotrusion more efficient as time elapses, during which the bowel is effectively excluded from the canal. The very large cases of the two brothers Dunn (47 and 48 in my work on Rupture), operated on in June, 1862, remain, according to a letter from the father received a short time ago, perfectly cured up to the present time.

I may here mention that, as I am anxious to obtain, as far as possible, correct statistics of my cases of radical cure, I should be glad to receive information that may have been directly verified by any of my readers as to the failure of any of my cases, specifying the name and address of patient, date of operation, and whether one of my trusses had been worn.

It is the interest both of the Profession and of the public to have the utmost light thrown upon the results of an operation for the cure of a deformity which has baffled the efforts of Surgery for the last thousand years or upwards. I should be also very glad to know the results that have been obtained by any of my professional brethren, both in this country and abroad, who have given these methods of operating a fair trial. I would emphasise a *fair* trial, because many operations have been done based upon the principles, wholly or partly, which I originally laid down as necessary for the cure of rupture, but altered by modifications according to the fancy of the operator, many of which (from the accounts I have received) have influenced the results of the operation very materially.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

CASES OF TYPHOID AND TYPHUS FEVER, ESPECIALLY WITH REFERENCE TO THE CONDITION OF THE URINE.

(Communicated by Wm. Dunnett Spanton, late Resident Obstetric Assistant House-Surgeon to the North Staffordshire Infirmary.)

Case 1.—R. T., aged 21, single, was admitted under the care of Dr. Goodfellow on November 19, 1861. He has been a carman for six years, and has always been healthy. Ten days before admission he did not feel well, and had an attack of diarrhœa. This was followed by rigors, vomiting, anorexia, drowsiness, and headache, and soon afterwards by cough and expectoration of thick mucus. The diarrhœa continued up to the time of admission, accompanied with pain in the abdomen. The urine was diminished in amount. No cause could be assigned for the illness.

On admission, the countenance was febrile; skin hot, on the chest covered with numerous rose-coloured "typhoid" spots. There was no pain in abdomen, no tenderness on firm pressure, nor gurgling. Some meteorism was present, most marked in the right iliac region. Bowels loose; tongue dry, florid at edges and tip, furred along the centre; resp. 28, calm; occasional cough, with expectoration of frothy mucus; sibilant and sonorous rhonchi all over the chest; pulse 112 sitting up, 98-100 when lying down, small, easily compressed; heart sounds healthy; no headache, deafness, muscæ volitantes, nor tinnitus aurium; urine acid, loaded with urates. Ordered to

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have milk diet and beef tea, and to take a pill containing sulp. copper and opium every six hours, also one pill of two grs. each of Dover's powder and hydr. c. cretâ at bed-time.

November 20.—Slept fairly, rambling a little. Complains of slight headache, and is a little deaf sometimes. Some fresh "typhoid" spots have appeared on the abdomen, others have disappeared. Bowels open once, motion dark ochre coloured, containing blood; resp. 28; pulse 104, firmer. Urine dark orange coloured, loaded with urates, very acid; sp. gr. 1022, containing 51·26 grs. solid matter in 1000 grs.; urea 23·28 grs. in 1000 grs. Chlorides almost absent. Sulphates in moderate quantity. Under the microscope nothing abnormal. Ordered to continue the pills, and to have applied over the abdomen a poultice of linseed with a little mustard.

21st.—Slept fairly; no headache; no fresh spots, former ones disappearing. One bloody motion since yesterday. Respiration 36. At the base of the left lung fine crepitation is heard, and there is some dulness on percussion; elsewhere over both lungs sibilant and sonorous rhonchi as before. Pulse 96; urine high-coloured, clear, acid, specific gravity 1023, twenty-six ounces from 7 p.m. yesterday to 7 p.m. to-day, containing 53·59 grains solid matter in 1000, 668·80 grains in the whole; urea 51·04 grains in 1000, 387·35 grains in the whole; no albumen, abundance of carbonates, small amount of sulphates, scarcely a trace of chlorides. Ordered to continue the pill with the addition of pulv. ipec. one grain; to have a draught of acetate of ammonia and oxymel of squill every six hours, and two teaspoonfuls of castor oil immediately.

22nd.—Rather better; spots fading; two dark, ochre-coloured motions after the oil, free from blood; respiration 32; pulse 96-100, soft, jerking. To have four ounces of wine daily, and to have some carbonate of ammonia added to the draught.

23rd.—Slept well; numerous fresh spots over sides of abdomen; one bloody motion last night, one bilious to-day. Respiration 32; pulse 96, dicrotous.

25th.—Not so well; lips and teeth covered with sordes; tongue covered with thick, dry, brown fur, and fissured; no pain in abdomen; a bilious fæculent motion passed in the night; respiration 34; fine crepitation at base of both lungs; pulse 88; urine high-coloured, clear, acid, sp. gr. 1024. To continue the copper and opium pill, and to take a draught containing quinine, sulph. acid, and tincture of cardamoms every eight hours. To take some strong beef-tea and an ounce of wine alternately every hour.

26th.—Urine copious, high-coloured, bilious-looking (giving no reaction of bile with nitric acid), sp. gr. 1027. A trace of albumen.

27th.—Better; less rambling and somnolency; skin perspiring; some fresh spots; those which came out three days ago are fading; tongue cleaner, moist; one motion this morning; respiration 36-40; expectoration tinged with blood; pulse 100; urine high-coloured, clear, acid, sp. gr. 1027, 30 oz. in twenty-four hours; solids 62·90 grs. in 1000, 905·76 grs. in whole; urea 22·30 grs. in 1000, 321·10 grs. in whole.

28th.—Urine in twenty-four hours 20 oz., acid, sp. gr. 1028, a trace of albumen; solids 65·24 grs. in 1000, 626·30 grs. in whole; urea 16·78 grs. in 1000, 161·08 grs. in the whole.

29th.—Improved; spots disappearing; tongue cleaner; respiration 28; pulse 78; urine in twenty-four hours 20 oz., amber-coloured, acid, clear, containing a trace of albumen, carbonates, phosphates, and chlorides abundant; solids 65·24 grs. in 1000, 626·30 grs. in the whole; urea 18·50 grs. in 1000, 177·60 grs. in whole.

December 2.—Much better; sleeps well. All spots are gone. No abdominal pain. Bowels open once daily; motions solid. Tongue moist; very florid. Respiration 25. Expectoration quite free from blood; scanty. Loose subcrepitant rhonchi heard at base of lungs. Pulse 94, small, weak. Urine in twenty-four hours, 26 ozs., acid, sp. gr. 1025, free from albumen; solids 58·25 grs. in 1000, 736·28 grs. in whole; urea 16·00 grs. in 1000, 199·68 grs. in whole.

4th.—Improving daily. Sleeps naturally. Appetite returning. One loose motion to-day. Respiration 18-20. Pulse 90. To have meat daily, and half-a-pint of bitter ale. To take a teaspoonful of castor oil every morning.

6th.—Going on favourably. Tongue clean. Bowels open last night. Appetite good. Respiration 18. Pulse 112, easily compressed. Urine of yesterday in twenty-four hours, 18 ozs., amber coloured, acid, sp. gr. 1024, free from albumen; solids 55·92 grs. in 1000, 483·15 grs. in whole; urea 17·18 grs. in 1000, 148·56 in whole.

9th.—Sleeps well. Appetite remains good. Skin natural. Bowels confined without the castor oil. Respiratory sounds healthy. Pulse 92, small.

17th.—The motions for the last four days have been covered over with florid blood, though firm and otherwise natural. General condition much improved.

24th.—Discharged well.

Case 2.—T. B., aged 21, single, admitted under the care of Dr. Goodfellow, on November 12, 1861. Has been a pianoforte maker for five years; temperate; always healthy. Three days before admission (November 16), when he went to work, felt very sick. Soon after this rigors followed. In the course of the same day diarrhœa came on, with epigastric pain, anorexia, and vertigo, which have gradually increased. He had no headache, nor epitaxis. On admission he was unable to walk; countenance dull and heavy; the lips incrusted; skin hot and dry. Several "rosy spots" on abdomen and back, disappearing on pressure. Marked meteorism. Bowels relaxed. Tenderness on pressure over whole abdomen, most severe in right iliac and right hypochondriac regions. No gurgling. Tongue dry, thickly coated in centre, florid at tip and edges. Thirst and anorexia. Respiration 28. Respiratory sounds healthy. Slight dry cough. Pulse, in sitting posture, 120; lying down, 88, full. Complains of headache, often severe, but inconstant. Slight deafness. No tinnitus nor muscæ volitantes. Urine acid, amber coloured, loaded with urates, sp. gr. 1026, free from albumen. Ordered to have milk diet and beef-tea, and to take a draught of acetate of ammonia every six hours.

November 20.—Slept little; no delirium; headache and deafness continue. Some tinnitus aurium and muscæ vol. at times. Several fresh spots on abdomen; tenderness continues. Bowels open once, loose. Respiration 28. Pulse 88, dicrotous To have spirit lotion applied to the forehead; to take a pill containing two grains each of hyd. cum cretâ and Dover's powder at bed-time, and two teaspoonfuls of castor oil in the morning.

21st.—No delirium; no headache; no deafness; nor tinnitus. Still much tenderness and meteorism of abdomen; bowels open once to-day, motion loose bilious, free from blood; Tongue moist, less coated. Respiration 36. Pulse 88, full, very soft. Urine to 7 p.m. yesterday in twenty-four hours, 26 oz., orange coloured, acid, thick with urates; no albumen; solids 58·25 grs. in 1000, 736·28 grs. in whole; urea 46·56 grs in 1000, 581·05 grs. in whole.

23rd.—Slept well; no headache. Spots marked on the 20th still visible; all others have disappeared. Bowels open twice yesterday, motions dark, loose, and fæculent. Tongue still coated, fissured, pale at tip. Abdomen still tender on pressure; slight meteorism. Respiration 27. Expectorates some slightly rusty mucus, which yesterday was bloody. Slight dulness at both bases; no crepitation audible. This was probably merely temporary congestion. Pulse 70, soft. Urine in twenty-four hours, 25 oz., light amber-coloured, acid; sp. gr. 1027; no albumen; solids 62·90 grs. in 1000, 754·80 grs. in whole; urea, 34·20 grs. in 1000, 410·40 grs. in whole. To take a draught containing quinine, sulphuric acid, and gentian every six hours, and four ounces of sherry daily.

25th.—Improved; sleeps well; no headache; skin moist. One spot only remains. Still slight pain in abdomen on pressure; no meteorism. Bowels open once to-day, motion firm, dark, free from blood. Respiration 26. Pulse 68-70, weak. Urine in 24 hours, 29 oz., light amber-coloured, acid; specific gravity 1018; solids 41·94 grs. in 1000, 648·05 grs. in whole; urea 27·00 grs. in 1000, 375· grs. in whole. To continue the draught and wine.

28th.—Better; gums very spongy; no spots. No pain in abdomen, unless pressed. Slight gurgling in right iliac region. Bowels not open for two days. Tongue much cleaner, moist. No appetite. Respiration 28. Pulse 72. Urine in twenty-four hours, 38 oz., acid, straw-coloured; sp. gr. 1010; solids 23·30 grs. in 1000, 424·99 grs. in whole; urea 20·04 grs. in 1000, 365·52 grs. in whole.

December 2.—Much improved. Skin warm, acting well. Still slight tenderness of abdomen. Bowels not open since November 29. Tongue moist, clean. Some appetite. Respiration 22. Pulse 74, moderately full. Is able to be up a little. To have meat diet, 4 ozs. sherry, half a pint of bitter ale, and a draught of Chiretta, bicarbonate of potash and rhubarb three times a-day. Also to take a teaspoonful of castor oil immediately.

5th.—No pain in abdomen. Bowels open after oil and daily since. Appetite good. Respiration 30. Pulse 74,

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small, weak. Slight dyspnœa. Urine in twenty-four hours, 34 ozs., acid, clear, straw-coloured, sp. gr. 1026. Solids, 60·58 grs. in 1000, 988·66 grs. in whole. Urea, 20·28 grs. in 1000, 331·06 grs. in whole.

11th.—Not so well. Last night the pain in abdomen became severe, and the patient was giddy and faint. This, however, has nearly gone. Bowels open once a-day; motions firm. Respiration 26. Pulse 100. Complains of some headache.

24th.—Since the 11th there has been a steady improvement, and he was discharged to-day well.

ROYAL MATERNITY CHARITY.

CASES OF PLACENTA PRÆVIA.

(Under the care of Dr. BARNES.)

Case 1.—*Partial Placental Presentation—Funis and Shoulder—Turning.*

NOVEMBER 23, 1862.—A. B., in ninth labour, at term. The liquor amnii escaped in very large quantity three hours before Dr. Barnes was called. No presentation was felt. At 10 p.m. Dr. Barnes passed his hand into vagina to determine presentation; the cervix was fully dilated; a bunch of funis was hanging through the os; the right shoulder was over the os internum; the face a little to the left of the brim; the child very moveable. The right knee was seized by pressing the breech firmly down upon the forefinger of the operator's left hand, which was passed just inside the cervix. Version was then easily effected by drawing down this leg and pushing up the head from the brim by the palm of the operator's right hand applied externally. Delivery was quickly effected by traction upon the child, combined with pressure on the uterus. To this speed the safety of the child was due. It was born asphyxiated, but respiration was excitable, and was excited. The placenta was cast. The mother appeared to suffer no pain throughout. Child, a boy, of full size. The cord was inserted on the margin of the placenta, just over the os uteri. There had been considerable præ-partum hæmorrhage. This had entirely ceased when Dr. Barnes examined and found the cervix dilated, although there was no pressure of membranes or fœtus upon the cervical zone capable of closing the vessels, as was proved by the following facts:—1. There was a shoulder presentation; 2. The funis was prolapsed, and was not compressed, for the child was born alive; 3. The fingers passed the cervix with ease.

Case 2.—*Placenta Prævia—Arrest of Hæmorrhage by Escape of Liquor Amnii—Birth of Live Child.*

February, 1853.—A pluripara, being near term, was taken with copious flooding at night. The midwife ruptured the membranes; the liquor amnii escaped, and the head was pressed upon the cervix. When seen by Dr. Barnes, the cervix was dilated to size of a crown piece; the head was presenting, and there was no hæmorrhage. Concluding that by uterine contraction alone the placenta had been detached from the orificial zone, and that the case was thus reduced to one of natural labour, there being no urgency, Dr. Barnes advised trusting to nature. The child was delivered alive spontaneously six hours afterwards.

Case 3.—*Placenta Prævia—Artificial Detachment of Placenta from Orificial Zone (Dr. Barnes' Method)—Turning.*

January 8, 1864.—C. D., patient in tenth pregnancy, at term. The last two labours were preceded by flooding. She has had repeated hæmorrhages during the last fortnight. To-day more free from hæmorrhage; very little pain. The midwife found the os opening, and some hæmorrhage, at 10 p.m., and sent for Dr. Barnes. He found the patient very weak; pulse scarcely felt; very anæmic; no pains; cervix expanded to three inches diameter; a flap of placenta extending over the orifice; the membranes unbroken, although it was said some water had escaped. There was no hæmorrhage, and no tension of the membranes. Dr. Barnes detached the placenta freely all round the orificial zone as far as the finger could reach; and opened the membranes just on the margin of the placenta with a steel pen. The head presented. There being no uterine action—paralysis of the uterus is, in fact, a very common attendant upon placental presentations, and one great motive for artificial delivery—it was determined to turn. A knee was seized by aid of external pressure; the cord was felt pulseless; version effected by pushing the head up from without away from the brim. A full-sized male child was delivered in ten minutes; still-born. The placenta was cast; it was of large superficies. The part which had been over the os was lacerated; the cord sprang from this edge. The mother did well.

Case 4.—*Placenta Prævia—Artificial Detachment of Placenta from Orificial Zone—Turning.*

April 17, 1864.—A. M., pluripara estimated in seventh month. She was taken with profuse flooding yesterday, and this returned still more severely to-day. Dr. Barnes saw the patient at 10·30 a.m., found her very anæmic; pulse feeble, surface cool, cervix scarcely admitting the finger, vagina full of clots, hæmorrhage still, cervix fully an inch and a-half long, a flap of placenta partially loosened lying over the os uteri internum, which was very rigid. The placenta was further detached from its adhesion to the posterior aspect of the orificial zone by the finger; the head was presenting; there was no uterine action, and therefore no security against further hæmorrhage; it was therefore determined to accelerate labour. The medium-sized bag was passed and distended with water; the cervix held it firmly, pressure being exerted along the whole cervical canal, and especially upon the ora internum and externum; dilatation, admitting three fingers, was effected in half-an-hour, and some slight uterine action was excited. The largest-sized bag was then placed; in fifteen minutes more the rigid, imperfectly-developed cervix was sufficiently dilated to admit the passage of a premature child without violence. Turning was effected by the bimanual method easily, and the child was extracted in fifteen minutes, the os internum yielding slowly to the head. The child, which did not exceed the development of six months' gestation, was still-born. The placenta was cast, the uterus contracting well when the child was extracted. The flap of placenta that had presented was infiltrated with effused blood, and a clot adhered to the margin. The mother recovered well.

These cases illustrate several of Dr. Barnes's views as to the physiology and treatment of placenta prævia.

Cases 1 and 2 prove that there is a physiological limit to the hæmorrhage marked by the detachment of the placenta from the cervical or orificial zone; that it is not necessary to separate the placenta beyond this zone; that the detachment being completed from this zone, and the hæmorrhage being stopped, the portion of placenta remaining adherent to the lateral and fundal zones of the uterus may preserve the child, and enable it to be born alive either by turning, as in Case 1, or by the natural powers, as in Case 2.

Case 3 proves the safety and utility of artificially detaching the placenta from the orificial zone, and the indication to deliver by turning when the uterus is paralysed.

Case 4 illustrates a point much insisted upon by Dr. Barnes—namely, that profuse and even fatal hæmorrhage may occur before the os uteri is dilated; that hæmorrhage does not necessarily render the cervix soft and dilatable, and that active measures may, therefore, be called for to accelerate labour at a time when the cervix would not admit the hand to pass for turning without the infliction of severe and even dangerous violence. In no class of cases is the value of the water cervical dilators more decided. In this case the uterus was put in a condition for the safe transit of the child in an hour, notwithstanding the great rigidity attending the imperfect development of the organ at six months' gestation.

APOTHECARIES' HALL OF IRELAND.—The annual examination for the Council's prize of five guineas was held in the Board-room on Monday and Tuesday, May 2 and 3, the subject for the present year being "The Chemical Physiology of Man: the Chemical Changes which take place in the Human Body in Health, with special reference to the Functions of Digestion, Respiration, and Nutrition." Mr. E. W. Collins obtained the prize; Mr. Joseph Kenny, Medical scholar, Catholic University, was awarded the certificate.

DRASTIC PURGATIVES IN PUERPERAL FEVER.—Professor Breslau, Director of the Zurich Obstetrical Clinic, relates 64 cases in proof of the great advantage attending the administration of drastic purgatives in the true Hospital puerperal fever, even when prevailing epidemically or endemically. Their use should be commenced within the first twenty-four hours, and continued at short intervals until the purgative effect is produced. The presence of an acute general or circumscribed peritonitis, oophoritis, or salpingitis, must not deter the Practitioner from their use, as they constitute the best antiphlogistics, while their employment does not prevent other means, such as leeches, cataplasms, etc., being simultaneously resorted to.—*Archiv. der Heilkunde*, 1863, Nos. 2 and 6.

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Medical Times and Gazette.

SATURDAY, MAY 7.

THE MEDICAL COUNCIL.

Our Medical Parliament met for the Session of 1864 on Monday, April 25, and the first subject discussed was Dr. Andrew Wood's Annual—"That reporters be admitted to the meetings of the General Medical Council." As we anticipated, the motion was this year carried; in a rather curious, complicated manner, as our readers will learn from the Minutes, but it was carried, and all the speeches made in Council may now be published, as well as the results of those speeches.

The Council, after much hesitation, decided most rightly on employing a "reporter for the Council;" as public reporters are admitted to the debates, it is most important that an authorised version should be provided.

The discussion on the subject occupied a sitting and a-half, so that this privilege has cost the Profession, as the *British Commercial*—we beg its pardon, the *British Medical—Journal* is very properly careful to inform us, about £250. This must have been nearly the cost for this Session only; it is a pity the calculation was not more accurately and fully carried back, so as to embrace all the golden hours given to the subject from the time when Dr. Andrew Wood first made his motion; for a knowledge of the exact money value of getting the Council to "sit in the presence of the Profession" might help us towards feeling enthusiastic over Dr. Andrew Wood's victory. At present, though we have tried to think big things about it, we confess to having failed most wofully. We care vastly more to know what men do in council than what they say; what men vote for or against, than for their reasons for the faith that is in them. Nothing would be more easy than to utter a quantity of "tall talk" on the subject, but the occasion does not appear to us to call for or to justify it. The outer world is most cruelly indifferent, and simply ignores the great fact that the hall of our convocation is open to it; not Jupiter, neither the great nor the lesser, nor any of his rivals, has cared to grace the reporters' gallery; we cannot learn that even the smallest, the most lean and hungry for news, among the dailies or weeklies of the secular press has claimed admission to it.

We are quite ready to allow that it is only right and just that the Medical Parliament should meet in public, and that the exclusion of reporters would be "alien to the genius of British institutions," etc., and we believe that men will be more careful and guarded in speech, and more deliberate in forming their opinions now that they have to speak in the presence of the Press; but we do not anticipate much pleasure, or satisfaction, or benefit from the perusal of their speeches; and the specimens we so far have of them do not exceed our anticipations. One of our contemporaries has given us, with a great flourish of trumpets, Dr. Andrew Wood's speech on introducing his resolution—reported in full before reporters were admitted, by the bye. It is, perhaps, a clear and not unfair *resumé* of the arguments for and against the resolution; but we should have been somewhat puzzled to account for our contemporary's high-flown praise of it, had we not observed that Dr. Andrew Wood had had the sagacity to discover that that contemporary is "the leading journal of the Profession." "Caw me, and I'll caw thee," is an excellent principle, and is appreciated as well this side of the Tweed as beyond it; it is only natural to put on our most rosy-hued magnifiers when reading the speeches of appreciating friends. We trust, however, that it will not become a habit with speakers in the Medical Council to quote by name any of the journals; such a proceeding will do anything but add weight and dignity to the debates, and savours strongly of flunkeyism.

One thing we have learnt from the published speeches of our representatives which we should never have suspected—namely, that the great end and being of the Medical Council, its "final cause," is the use of "moral suasion." We are quite sure the Profession never dreamt that all their years of anxiety and agitation, all the vast expenses they have incurred, and are still incurring, were only to result in the acquisition of a "Moral Persuader!" We cannot believe that many of the members of the Council entertain so low and weak a view of its duties and powers. If they do, we may at once bid "farewell, a long farewell," to all ideas of any greatness of results from its deliberations, to all hopes of an improved and uniform system of Medical education, or of any real advantage whatever from its existence. The utmost to be expected will be a series of futile and vacillating compromises. Dr. Andrew Wood "abhors compromises," while Mr. Arnott complains that the spirit of the old Covenanters still flourishes north of the Tweed; to which Dr. Alexander Wood retorts that such ideas are "natural to a naturalised Scotchman in England. Whenever he heard a man abuse Scotland, he was sure that that man's grandfather was a Scotchman." Our readers may not be impressed with any great notion of dignity and worth by debates carried on in this spirit, but let us be thankful for a little amusement. Compromise there must be in carrying out such work as the Medical Council has in hand, and we willingly make allowance for the great and manifold difficulties it has to contend with, but "il y a fagots et fagots," and after an existence of five years the Profession has a right to look for something better from the Council than compromises which are absolutely neutral and emasculate, or, at the most, only make confusion worse confounded. Look at that incarnation of compromise the British Pharmacopœia! Speaking with reference to it last year, we observed—"Come when it may, it will be received with a chorus of discordant criticism." We were wrong—we openly confess it; for never was a work greeted by such an universally accordant cry of dissatisfaction and objurgation. From the late President of the Council downwards, throughout the Profession, it meets with only hostile criticism and dislike, and is, not quietly, put on one side, while men go on using the Pharmacopœias of the Colleges. Our great "persuader" will assuredly fail in getting us to swallow this one of its productions by any arts of "moral suasion" it can employ.

The Council has appointed a Committee, which we are glad to see consists of only four members, to prepare a new edition of their Pharmacopœia; and this Committee is to appoint "an editor or editors;" we trust they will keep to the singular number in this respect. The Committee is to supervise the labours of the editor, and the Council the labours of the Committee, so that there will be verge and scope enough for the conflict of opinions, without a plurality of editors to start with.

On Wednesday the Council resolved itself into a Committee on Education, and has since then been chiefly occupied with this subject. The speaking has been most copious, and the actual work done proportionately small; nearly every inch of ground has been hotly disputed, and it is not always easy to discover what was the difference between the

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disputants. The ball was opened by Dr. Storrar, who proposed "that the Committee proceed to consider, one by one, the recommendations of the Council, relating to General and Professional Education and Examination." As the object was to get a general committee on education to work, this resolution has a most natural, simple, sure-to-pass aspect; but Mr. Syme met it by the amendment "that the Committee do now proceed to consider the whole subject of Medical Education and Examination, with the view of preparing a Report for the guidance of the Licensing Bodies." Dr. Storrar naïvely remarked that he could not see any difference between the original motion and the amendment, and we suspect most readers of the Minutes will find the same difficulty; however, the Committee were sharper sighted, for a debate followed, which occupied the greater part of the day. The real object of the amendment seems to have been to ignore entirely all the former work of the Council on the subject, to throw over altogether the existing regulations, and begin *de novo*. It is impossible for us to treat our readers with the various speeches at length, but Dr. Storrar proposed to take the existing "recommendations as a sort of catalogue of the various questions which are conveniently placed before us for the arrangement of our discussion;" and he was anxious that the Council should do their spiriting very gently, and remember that they could only "recommend," and were utterly destitute of any authority or power to prescribe or enforce "rules."

Mr. Syme considered that when the recommendations were agreed to by the Council they intended to enforce them, but, as was well known, when one of the examining bodies had rebelled against them the Council had shrunk from enforcing them, that "last year it was agreed that the period of force had ceased" (we did not know it had ever existed), "and the age of persuasion begun;" that, therefore, it would be a waste of time to consider the recommendations. He proposed to recommence with a "tabula rasa."

Dr. Andrew Wood seconded the amendment, and made a vigorous speech in support of the powers of the Council. The object of the Act which created them "was to remove invidious privileges which existed previously, to do away with injurious monopolies, and to put all parties on an equal footing, but at the same time to establish a means of enforcing a certain, fair, and just amount of education and examination throughout the kingdom;" but when the College of Surgeons had refused to adopt their recommendations the Council had vacillated. Had they carried the matter then before the Privy Council "they would have been in a condition to say exactly what their powers were. It was said they had no powers. They had never tried their powers. Had they gone before the Privy Council they could have forced them to do what they wished, and so they could have enforced the regulations and have established uniformity. Failing this, they might then have either used 'moral suasion' or have taken a bolder and more straightforward course: they might have gone to Parliament to get the proper powers. . . Let them no longer recommend, desire, and do nothing, but take the steps the act enabled them to take, or if the present act did not give them power, let them get a new one."

Dr. Wood's mention of the College of Surgeons called up Mr. Arnott, whose speech, however, can hardly be considered a defence of his College, as it consisted mainly of a charge of intolerance against some of the members of the Council; to this we have already alluded. He warned them against going to the Privy Council. "If you frame resolutions and go to get them sanctioned, look what you do. You put the control of the whole Medical system of England out of your own hands, and give it to the Privy Council. And who is the authority with regard to the Privy Council? Do you think the Privy Council care a rush for you? They will ask the man who happens to be their Medical adviser, and you are in their hands. I will advise you to hesitate before you adopt that course of going to the Privy Council."

Dr. Acland thought it very unfortunate that there was so great a tendency to throw discredit on their past proceedings. A great deal of time and labour had been expended on these recommendations. "Their late President (Mr. Green) had bestowed great attention on them, and had paid great attention to educational questions, and was known to be a skilful thinker (if he might say so) in that department of knowledge." He thought a great deal of time had been wasted, and hoped that the resolutions might be adopted without much further observation.

Eventually the original motion was carried.

Dr. Storrar then moved the first recommendation—"That all students pass an examination in general education before they commence their Professional studies." This again excited a long discussion; and Dr. Acland, "to meet the wishes of the various speakers," moved the following amendment:—"That all students pass an examination in subjects to be included under the head of general education prior to the date from which the commencement of their Professional studies is to be reckoned." It passes our wit to discover wherein the amendment differs from the original motion, save in number of words. The discussion might be creditable to a debating society of sucking barristers and special pleaders, but hardly to men of great reputation and experience met together for real work. The original motion was at last carried.

The second recommendation, moved by Dr. Storrar, was—"That the time of commencing Professional studies shall be understood to be the time of commencing studies at a Medical School; and that no qualifying body be held to have complied with the recommendation of the Council which will allow the examination in general education to be passed after the commencement of Professional study;" and it was ingeniously postponed and neutral-tinted by Mr. Arnott, who moved—"That 'the time of commencing Professional studies shall be understood to be the time of commencing studies at a Medical School,' be transferred to the recommendations on Professional education;" and "That the concluding paragraph of the second recommendation—viz., 'That no qualifying body be held to have complied with the recommendation of the Council which shall allow the examination in general education to be passed after the commencement of Professional study,' be omitted." His amendments were carried.

A list of the national educational bodies whose testimonials of proficiency may be admitted was agreed upon; and after a vast amount of discussion as to whether a minimum standard of preliminary examination should be fixed by the Council, and as to the expediency of positively requiring a knowledge of Greek as well as Latin, it was determined "that the examination in general education be eventually left entirely to the examining boards of the national educational bodies recognised by the Medical Council," but that a knowledge of Latin be absolutely required.

A simple and, we think, very good system of registration of Medical students was adopted; and late on Friday the committee had arrived at the consideration of the recommendation, "that the age of twenty-one be the earliest age at which any Professional licence shall be obtained;" to this Mr. Syme moved the amendment—"That the committee proceed to consider the subjects and course of study requisite for a Medical Professional education," and the amendment being carried, he then moved "that the Council proceed to frame a course of study for Medical education, which may be recommended to the licensing bodies." The discussion on this motion, and the amendment proposed to it, occupied the Committee the whole of Saturday and Monday, and ended in "*vox et preterea nihil.*" The original motion and the amendment, for the latter of which we must refer our readers to the Minutes, were both negatived, and on Tuesday, instead of the Council resolving into a General Committee on Education, it did what had in effect been proposed and negatived on the Thursday previous, namely, appointed a Special Committee to

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draw up a scheme of Medical education. We have not space for more this week, but intend in our next number to give our readers the most important speeches of the debate. So far, we fear they must think that the Council has presented them with bread and sack in most intolerably Falstaffian proportions; the whole proceedings irresistibly remind one of a review-day, when, after the public has been regaled with numerous complicated and unintelligible evolutions, and with a vast amount of noise and smoke, the affair ends in the general order of—"As you were."

THE "BRITISH MEDICAL JOURNAL" ON SCIENCE.

It is a distinguishing mark of civilised people that they avoid personalities. For this end all sorts of courteous contrivances are in use in the common intercourse of life. In many languages they speak, not of persons, but of attributes, as "your excellency," "your lordship," "your holiness," "your worship," and the like. Usually we speak in the plural when we mean the singular; and the "you" is employed as a courtesy, whilst "thou" would be a sign either of reproach, or of the extremest familiarity, or of great vulgarity. More particularly is this usage adapted to the conductors of periodicals. The editor says not "I," but "we;" so as not only to avoid the *ego*, but to intimate that it is not a "person" who is in question, but an abstraction; the "Journal," the sentiment of the proprietary, or of a committee of management, or of those professional friends by whose counsel the editor is assisted. And, in attacking anything contained in a journal, ordinary courtesy demands that we attack, not the editor, nor Mr. A., or Dr. B., supposing we know the editor's name, but "the journal," the "management," the set of opinions, or the party of which it is the "organ."

Now, the *British Medical Journal* accuses the editor of the *Medical Times and Gazette* of personality, because of our strong condemnation of the tradesmanlike tone which that journal has of late exhibited. We can only say that when anything personal is pointed out we shall be but too ready to retract and apologise for it. But whilst avoiding all attacks upon persons, we do not see why we should desist from pointing out the strange confusion of thought, the abominable taste, and the low, mercenary tone of the journal which is published by the British Medical Association.

If a man wants a trade in which he can make money fast, we are afraid that we must recommend him to turn speculator, or stock-jobber, or distiller; or, if he is not too nice, let him be a publican or perfumer, let him deal in gin or in bear's grease, but certainly let him not attempt physic. Yet, poor as the Doctor may be, there is a prestige about him which the richer shopkeeper sees with envy, and there is a satisfaction in his work—laborious and repulsive as it may be—which makes some amends for the emptiness of his purse. He feels that he is a professional man, that he is doing good to his fellow creatures, and enlarging the bounds of science.

And these are the two pearls which the "organ" of the British Medical Association, like a certain beast, would trample under foot. We have lately shown how it deals with the notion of humanity; and now for its treatment of science.

A discussion had arisen in that journal about the quantity of scientific instruction to be imparted to Medical students, on which point three things are clear to us. One is, that although no man can be a good *practitioner* without *practice*, yet that, of any number of men, those who are prepared for practice by a course of scientific instruction will be better in the end than others who begin without such a discipline. Secondly, we do not affirm that all men require, or ought to have, the same amount of scientific preparation; but we do affirm that a Medical *school*, to be worthy of the name, should be capable, not merely of providing the a b c which shall enable the πόλλοι to squeeze through Hall and College, but of showing the very fullest and most advanced stage of science. Thirdly, it is clear that this can be done, not by mere books, or apparatus, or anatomical preparations, but by living Professors. As in a living language there always are new terms and niceties of phrase which cannot be got from books, however classical, so in an advancing science the latest and furthest and fullest knowledge can only be obtained from the teacher who is himself engaged in making the science. The best books can only give last year's knowledge. Whoever wants to know the whole of ophthalmology must visit Donders, Graefe, Bowman, or Wilde, and see what they do and hear what they say. And nothing is so potent in setting the student to work as to witness the self-denial and enthusiasm with which the best teachers in all schools work for the love of science herself.

Such seems to have been also the sentiments of the Professor of Physiology at King's College, a man who excites the wonder of the Profession by the extent and multiplicity of his original research. In a letter to the *British* last week, he pleaded the great importance of the scientific part of Medical education, and showed conclusively enough that it was inconsistent to pooh-pooh science, and in the same page to rail at a man for lauding "the Germans." Taking ophthalmology for an example, Dr. Beale showed that if we did not encourage the teaching of it in the best and most perfect manner in our schools, our pupils must go to Germany to learn it, and, if they do, must form a high estimate of the foreign schools in which they study.

Through that spell which seems to have come over the *British Medical Journal*, it criticised Dr. Beale's letter, and ventured to assert that "in this country, and especially in London, *men give lectures in order to get* (indirectly, of course) *private practice, not to advance the study of science. Lecturers here keep an eye ever on the main chance.* Can three Medical lecturers in London be named who are not lecturing with the view of private practice in their eye?" ! !

Now, if the "organ" had said that men give lectures to get practice and to advance the study of science, it might have justly been considered true, in a sense, though not very refined, nor elevated, nor complimentary to the London lecturers. But when it is asserted that men lecture to get practice, and *not* to advance science, we are made to stare at the audacity which dictated anything so uncourteous and offensive, and so contrary to what men see and know to be true who enjoy the friendship of half-a-dozen of Hospital Physicians or Surgeons in London.

The organ of the British Medical Association actually, when addressed ably and dispassionately on questions of great interest, not only to lecturers and teachers, but to the whole body of British Medicine and Surgery, tells the London lecturers that they keep an eye ever on the main chance!—tells Dr. Beale he seems to think there is no limit to the voracity and capacity of students! Does the British Medical Association think it decent that a scientific discussion should be treated in this low and discourteous spirit?

THE WEEK.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE XIV.—MARCH 3.

Anatomy of the Chimpanzee continued.—In the adult male the penis is very small, of a long and slender form, and terminating in a small, narrow glans, of very different form from that of man. On the other hand, the testes are extremely large. The communication between the tunica vaginalis and the abdominal cavity is shut off as in man. The reproductive organs of the adult female have not been described, but in a young example of that sex, the clitoris was very large, the vagina proper narrow, but dilated at the posterior part, the uterus simple having the same general form as that of a child of corresponding age, but differing in being more flattened from before backwards and quite straight.

We have at present no definite knowledge of the changes which take place in the embryo before birth, but the sub-

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sequent laws of growth can be readily studied on the collection of skeletons in the College Museum, and give results in some respects very different from those observed in the human subject. The total height of the whole body when full grown is about three times its height at birth. There is the same comparatively small increase in the head as in man, the vertical height of the adult skull not exceeding twice that of the new-born animal. In man we saw a great difference in the relative growth of the legs and arms as compared with each other, and with the trunk, but in the chimpanzee the same proportion is approximatively preserved throughout; hence the young chimpanzee and the human child are more alike in form and proportions than are the adults of both species. As regards special segments of the limbs, a different law of growth prevails from that observed in man; the hand and foot are proportionately longer in the young, and as growth advances the other segments increase at their expense. Among other changes which take place in the process of development may be noticed the obliteration of the suture between the maxilla and the premaxilla before the milk teeth are all in place; in this respect the chimpanzee approaches man and differs from all other apes. With growth also comes an immense increase of macrognathism and prognathism, and a great development of the frontal sinus and supra-orbital ridges, which greatly alter the external appearance of the skull.

In the adult state, certain differences are observed between the sexes, independently of those directly connected with the generative function. In the first place, it is to be noted that there is no very marked difference of size between the male and female. In the dentition a striking sexual character is seen in the greater size of the canine teeth in the male. The pelvis presents characters in the two sexes quite parallel to those observed in the human subject. Although of precisely the same vertical height, every other dimension of the female chimpanzee's pelvis is strikingly greater than that of the male, particularly the breadth of the inferior outlet.

Although the number of chimpanzees' skeletons and skulls in our collection is not yet very numerous, it is sufficient to show that there is a considerable range of variation between different individuals. A cast of a skull of a variety called by M. Du Chaillu "Kooloo-Kamba" was exhibited, differing from the ordinary form in the comparatively small size and excavation of contour of the face, great size of cranial cavity, and depth of ramus of lower jaw. It might have been thought to belong to a distinct species from another skull exhibited, if the collection did not furnish several examples directly intermediate in all their characters. Professor Huxley remarked that if the tendency to vary was so strong in this anthropoid ape, that amongst individuals having a very limited geographical area, and subject to the same climatic and other external conditions, we could find skulls differing from each other as widely as those of the European and Australian among men, we should not be surprised to find that man, spread over every part of the globe, should present the range of variation we have seen in his physical characters; nor should we find it necessary, in accounting for such variation, to go back to diversity of origin or difference of species.

The Gorilla (*Troglodytes gorilla*) inhabits the same tract of country as the chimpanzee, but is perhaps not so widely spread. It lives more in the hilly inland parts than the chimpanzee; when on the gronnd it readily assumes the erect posture; its stentorian howl can be heard at a great distance, and the old males are very ferocious. Little more than this is known of its habits. The stature of an adult male, when placed upright, is about five feet, perhaps never exceeding five feet six inches. The colour of its hair is blackish-dun; in old specimens grey. The integument of the exposed parts of the face, etc., is not pale, as in the chimpanzee, but black. The manner in which the hair is distributed is much as in the chimpanzee. The general proportions of the body are also very like those of that animal, the length of the arms being about two-thirds of the height, the legs two-thirds of the arms, and the height two-thirds of the span from tip to tip of the extended fingers. In minor respects there are differences of proportion from those of the chimpanzee. Thus, the humerus is longer than the radius, instead of being nearly equal, and the hand is much shorter in proportion to the forearm and humerus. The dimensions in the male gorilla's skeleton in the College museum are—Humerus, 17 inches; radius, 13; hand, 9½. The foot is very distinctly longer than the hand; the great toe is proportionally stouter than in the chimpanzee: the sole of the foot and palm of the hand are extremely broad, and there is a very marked syndactyly of the toes and fingers, extending as far as the end of the first phalanx. The nose is somewhat more projecting than in the chimpanzee, the external ear differs in being very much smaller.

The number of the vertebræ of the different regions of the spine are the same as in the chimpanzee, viz., cervical 7, dorsal 13, lumbar 4, sacral 5, coccygeal not satisfactorily determined. The cervical vertebræ are remarkable for the great elongation of their spinous processes, for the attachment of muscles to support the great weight of the head and jaws. The last lumbar vertebra has its lateral processes expanded and united with the sacrum. The thorax is of great size, the sternum broad and flat; the space between the last rib and the crest of the ilium is very small.

In no part of the organisation of the gorilla is its difference from man so apparent as in the skull. This, however, is more apparent than real, as the true characters of the brain case are completely hidden by the prodigious development of the lambdoidal and sagittal crests and the supra-orbital ridges. The capacity of the largest cranium of a gorilla yet measured is nearly thirty-five cubic inches. In this respect, and the greater development of the mastoid process, the gorilla's skull approximates more than the chimpanzee to the human subject. In all other characters it approaches more to the lower apes, especially the baboons. One of the peculiarities belonging to the latter division is the union of the frontal bone across the base of the skull, covering the junction of the presphenoid and ethmoid, and causing the olfactory fossa to become narrower and more funnel-shaped.

PARLIAMENTARY.

In the House of Lords on Thursday, April 28, a conversation took place relative to the proposed removal of the seat of Government from Calcutta, and also on the recent Government interference with the native mode of disposing of their dead.(a) From what Lord Wodehouse said, it appears that the question of the removal of the seat of Government is now under the consideration of the authorities. Lord Ellenborough supported the claims of Calcutta on the authority of the late Duke of Wellington, who considered it to be unattackable by sea and land, and held that a maritime position which enabled the Government to maintain a free communication with its naval force was of the utmost importance. Of course, whilst India is held as a conquered country, such reasons must be allowed their full weight; but even they do not prove that it is necessary to make the most unhealthy spot in India the great seat of our commerce and the centre of civilisation. It may be questioned whether all the benefits this country has derived from her Indian possessions have not been too dearly purchased by the valuable lives that have been sacrificed to the pestilential miasms of the delta of the Ganges.

The bill for the punishment of rape by whipping was read

(a) The improvement of Calcutta has been often enough talked of to be, at least, begun in good earnest. The Marquis of Wellesley ordered a commission to examine and report on the subject; but he soon after left India, and the commission was scattered by sickness and death. Sir J. R. Martin laboured hard at the work under the Marquis of Hastings, and drew up an elaborate memoir on the Medical Topography of Calcutta more than twenty years ago. Lord Metcalfe, Lord Auckland, and Sir John Grant seconded Sir Ranald's efforts. He also desired to set on foot a complete system of social and sanitary statistics, military and civil. The fault of the present state of Calcutta lies not with the Medical Profession, but with the Government.

a third time. Lord Wodehouse moved an amendment, that the infliction of that punishment should be left to the discretion of the judge. The Lord Chancellor supported the amendment, and quoted the opinion of the judges of the Common Pleas, Exchequer, and Queen's Bench, to the effect that if the punishment were made compulsory, juries would show a greater disinclination to convict than at present. The House divided on the amendment, which was adopted by a majority of 35. The bill was then passed.

In the House of Commons on Friday, April 29, Mr. D. Seymour called attention to the extensive employment of boys in sweeping chimneys, and the systematic violation of the Act for the Regulation of Chimneysweepers and Chimneys. He read from printed reports numerous instances of children of tender age, some only seven years old, including female children, employed to climb chimneys, and described the cruelties practised upon them. The witnesses whose evidence he referred to attributed the non-enforcement of the law to the apathy of the magistrates and their indisposition to convict.

Sir G. Grey said there was reason to believe that there was a very extensive violation of the law, and that the attention of the Government had been directed to the subject.

Mr. Dillwyn called attention to the insufficiency and inconvenience of the temporary Museum for Inventions at South Kensington, and the Patent Library in Southampton-buildings, and to the expediency of uniting the Museum for Inventions and the Patent Library under one building, and at a convenient distance from the law courts.

Mr. Cowper admitted the importance of the subject, which, he said, was under the consideration of the Government, and he explained the arrangements they contemplated, the bringing the Museum in contiguity with the Patent Office and Library being, however, no part of them.

On Monday, May 2, in the House of Commons, Mr. J. B. Smith moved to limit the continuance of the sugar duties to one year. In urging this amendment he entered into the whole question, arguing strongly against the policy of the system of classification, as well as against *ad valorem* duties generally, and in favour of a fixed duty, observing that one rate of duty upon sugar would have the same effect, as regarded the producers, as if there were no duty at all, while consumers, whose interest should be paramount, would have a better article at a cheaper rate. He proposed that the duties should continue in force for one year only, in order to afford an opportunity for reconsidering the question next Session.

The amendment was seconded by Mr. Leatham.

After a long debate, the House divided, and the amendment was negatived by 97 to 14.

The Penal Servitude Acts Amendment Bill was read a third time and passed.

On Tuesday, May 3, in the House of Commons, Mr. W. Ewart moved for the appointment of a Select Committee to inquire into the expediency of maintaining the punishment of death. He repeated the arguments he had urged upon former occasions, citing authorities and statistics, insisting upon the uncertainty of the law, numbers of persons whose guilt was certain escaping capital punishment for murder through the reluctance of juries to convict, the feeling of the times, the modern theories of Medical science as to insanity, and other causes. He noticed certain modifications of the law which had been suggested and the objections to which they were open, and stated the propositions he meant to submit to the committee if his motion should be acceded to—a course he deemed preferable to asking the House to pledge itself by a resolution in favour of abolishing the punishment of death.

The motion was seconded by Mr. Denman, who, confining himself to the crime of murder, said if it could be proved that by capital punishment murders had decreased, he should be ready to vote for its retention; but he had good ground for thinking that the effect of capital punishment was not to diminish, but to increase crime. He showed that the number of acquittals in cases of prosecution for murder was enormously in excess of acquittals in other cases; and upon these chances of escape, he observed, criminals calculated, and were even incited by them to repeat the crime. He mentioned instances within his own knowledge in confirmation of his argument as to the inefficiency of capital punishment, which was further strengthened by showing the effects resulting from its abolition in other countries.

Lord H. Lennox moved as an amendment, "that a Select Committee be appointed to inquire into, the operation of the laws relating to capital punishments." He thought the time had arrived for an inquiry into the whole question—into the justice of inflicting the same punishment, and that the greatest of all punishments, for a crime varying so much in its character as murder, and into the present mode of commuting the penalty.

The amendment was seconded by Mr. Mitford.

Alderman Rose was opposed to the abolition of the punishment of death in cases of premeditated murder, which would be to remove one of the safeguards of society.

Mr. Neate suggested what, in his opinion, should be the subjects of inquiry, which he thought might be better conducted by a commission.

Sir G. Grey observed that since Mr. Ewart last brought forward this question (in 1856) considerable changes had taken place in the administration of the law, and capital punishment had been practically limited to the crime of murder. Under these circumstances Mr. Ewart asked the House to refer the question, whether capital punishment should be maintained or abolished, to a committee, and the Government were of opinion that it was not a fit question to refer to a committee of fifteen gentlemen upstairs, whose report would not be binding upon the House. He retained the opinion he had before expressed, that it would not be expedient or safe to abolish capital punishment altogether for grave cases of murder. He believed, in spite of statistics, that this punishment had a deterring effect, and was much dreaded. He could not, therefore, consent to the original motion; but the amendment of Lord H. Lennox proposed that the inquiry should be into the operation of the laws relating to capital punishments; and Mr. Neate had given notice of another amendment (which he was precluded from moving), that the inquiry should be made by a commission into the provisions and operation of those laws, and to report whether it was desirable to make any alteration therein. He pointed out various points which he thought might very well be made subjects of inquiry, and which he thought should be by a commission, as the result would have more weight. If, therefore, the motion and the amendment were both withdrawn, the Government would be prepared to appoint a commission for the purpose.

Mr. Bright observed that the main question raised by Mr. Ewart's motion was, if an inquiry should be instituted, whether capital punishment should be maintained or abolished, and he thought a Committee of that House could take evidence upon this subject as well as a commission. He was still of opinion that capital punishments were of no avail in deterring from crime. Seeing what had been done by the amelioration of our criminal code, could any man believe that human life was rendered more secure by capital punishment? He read replies to inquiries he had made as to the results of the abolition of the death penalty in some of the States of America, which showed that cases of murder or violence had not increased; that convictions were far more certain, and that the change had been upheld by public opinion. Would a change, he asked, which had proved successful in other countries be less successful here, and render life less secure? He hoped, he said, that the Government would put upon the commission men in whom the House and the country, and those whose opinions were adverse to capital punishments, had confidence, and who would give a fair opinion.

Mr. Newdegate, after replying at some length to Mr. Bright, observed that it was unfortunate, after discovering our secondary punishments to be inadequate, and when we were obliged to retain among us our worst criminals, that we should be raising doubts whether the capital penalty against murder should be retained.

Mr. Gilpin said there was no ground for accusing the opponents of capital punishment of any sympathy with crime; they were actuated by a sincere desire to advocate that punishment most deterrent from crime. He drew the attention of the House to cases which had not been alluded to, of innocent persons who had suffered death, and by man's weak judgment had been condemned to a punishment they did not deserve, but which was irrevocable and irreversible.

Mr. Roebuck remarked that the cases referred to by Mr. Gilpin had no application to the present time, when there was so great a regard for human life.

Sir F. Crossley said he was opposed to capital punishment because it did not agree with the merciful character of Christian dispensation.

Sir J. Walsh thought it better that the proposed inquiry should be by a commission than by a committee. He believed

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it was necessary for the protection of life that we should maintain capital punishment, which had a deterrent effect upon the criminal and dangerous classes, and for which it was impossible to devise an adequate substitute.

After some observations by Mr. Hibbert and Mr. Maguire, the amendment and the motion were both withdrawn.

Mr. Neate then moved an address to Her Majesty, praying that she will be pleased to issue a Royal Commission to inquire into the provisions and operation of the laws under which the punishment of death is now inflicted in the United Kingdom, and the manner in which it is inflicted, and to report whether it is desirable to make any alteration therein.

The motion was agreed to.

We believe that the determination to appoint a Royal Commission to consider the whole question of capital punishment will be received by all classes of thinkers, and especially by the Medical Profession, with entire satisfaction. Without expressing any opinion as to the propriety of capital punishment in cases of wilful murder, we hold that it will be a public deliverance if an end be put to the present state of things — the unsatisfactory acquittals, and the still more unsatisfactory commutations of sentence, which are a scandal to English justice, and a premium to crime.

On Wednesday, May 4, in the House of Commons, on the order for going into Committee upon the Weights and Measures (Metric System) Bill,

Mr. Humberston was opposed to the further progress of the Bill, which was repugnant, he said, to the common sense of the people of this country, who were not prepared to give up their ancient system.

Mr. Adderley observed that the principle of the measure had been already discussed, and had been affirmed by the House.

After a few words from Mr. Griffith, the House went into Committee upon the Bill; but many questions having arisen in the discussion of the details, upon Mr. M. Gibson undertaking, on the part of the Government, to introduce certain clauses, to be embodied in the Bill, Mr. W. Ewart, who had charge of it, consented to put off the Committee, and the Chairman was ordered to report progress.

QUARTERLY JOURNALS.

The *Quarterly Journal of Science* has a good article "On Milk and Dairy Arrangements," by Dr. Voelcker, in the course of which are some very practical remarks upon the subject of adulteration. He says that his own experience leads him to conclude "that a specimen of milk is rich when it contains 12 per cent. of solid matter and about 3 per cent. of pure fat; anything above this is of extra rich quality. Good average milk contains 10 to 11 per cent. of dry matter and about 2½ per cent. of pure fat. It yields 9 to 10 per cent. of cream. Poor milk, whether naturally or artificially diluted, contains 90 per cent. of water and less than 2 per cent. of pure fat, and yields only 4 to 8 per cent. of cream." Speaking of the *lactometer*, he says "it was never intended to indicate the relative richness of good samples of milk, but to point out whether samples of a fair or doubtful appearance had been watered or were of a naturally defective composition; and this purpose it satisfactorily fulfils." From his investigations it appears—"1. That good new milk has a specific gravity of about 1030. 2. That skim milk is a little more dense, being about 1034. 3. That milk which has a specific gravity of 1025 or less is mixed with water or naturally very poor. 4. That when milk is deprived of about 10 per cent. of cream and the original volume is made up by 10 per cent. of water the specific gravity of such skimmed and watered milk is about the same as that of good new milk. This circumstance, however, does not constitute any serious objection to the hydrometer, as milk skimmed to that extent cannot be mixed with water without becoming so blue and transparent that no instrument would be required to detect the adulteration. 5. That when unskimmed milk is mixed with only 20 per cent. of water the admixture is indicated at once by the specific gravity of about 1025. 6. That for these reasons the hydrometer or lactometer is well adapted for detecting the admixture of water or to show an unusually poor quality of the unadulterated milk."

In the *Quarterly Journal of Microscopical Science* for April Dr. Beale promulgates some "new views with regard to exudations." Differing from those pathologists who believe that a clear transparent plasma may give rise to the formation of living cells, as well as from those who dogmatically lay it down that every cell comes from a pre-existing cell, Dr. Beale holds that there are living bodies which are not cells, and yet which grow and multiply, and that many of the clear fluids which are considered as "*exudations*" from the blood really contain a multitude of extremely minute particles of living matter, which are intimately related to the white blood corpuscles, and that these grow and become one source of the small granular cells or corpuscles which are so familiar to all who have studied morbid changes in the tissues. Some of these may be so small as to be invisible by a power magnifying 5000 diameters. Such living or germinal matter, he holds, may retain its vitality even when detached from the body, germinating again when placed under favourable conditions, In this way he explains the propagation of purulent ophthalmia. and suggests that small masses of germinal matter are really the agents which are directly concerned in the introduction and distribution of the so-called animal poisons. He adduces the analogy of living vegetable organisms which are only just visible by a power of 5000 linear. "Pus corpuscles and ordinary lymph corpuscles are too large to be carried through the air, but minute particles may be detached from any of these bodies not larger than the germs of fungi which we know to exist in the atmosphere, and are thus transferred from one place to another. No doubt the great majority of such minute particles of living matter in a peculiarly active state of vitality would die long before they reached a new locality favourable to their propagation, but a few might escape, and meeting with a favourable surface would germinate. Warmth, moist air, little change in the atmosphere, are conditions under which the life of such minute particles of living matter would probably be preserved, and which are the conditions favourable to the propagation and spread of many of those contagious diseases which have long been attributed to the transference of matter which acts like ferments."

FROM ABROAD—THE PNEUMONOSCOPE—UNSUSPECTED TRICHINIASIS.

A new *scope* is among the latest inventions which have appeared at Paris, under the designation of a "Pneumonoscope." It is a mannikin, having for its object to teach the mysteries of auscultation, independently of the uncertainties and inconveniences of clinical observation, the various sounds in all their grades being producible by this apparatus at will. Twelve openings are practised in a bust, ten at its anterior and two at its posterior surfaces, each ticketted with the name of the sound to be heard. At the base a number of caoutchouc tubes pass out, and to the extremity of these a hand-bellows is attached. By alternate compression and relaxation of the bellows we are enabled to produce, according to the tube employed, on listening at the corresponding aperture, every variety of respiratory sound, whether normal, feeble, exaggerated, cavernous, amphoric, metallic, etc. For the production of the various *râles* it is necessary to affix to the bellows prepared mouth-pieces, moistened by saliva or albuminous water, when we get every variety of *râle*, whether crepitating, cavernous, soufflant, or what not. Fluctuation or friction movements within the thorax are imitated also by means of other simple adjuncts. At first sight this might seem but an ingenious toy or scientific curiosity; but it is said that Practitioners so well versed in auscultation as MM. Bouillaud, Barth, Trousseau, Blache, and Béclard have testified in favour of its practical utility as a means of instruction.

Enlightened by the recent revelations on trichina-disease, it becomes instructive to look back to instances of reputed wholesale poisoning, which at the time of their occurrence were

inexplicable. Dr. E. Wagner, of Leipzig, whose communication on a trichina epidemic in that city we noticed recently, refers to the narration of such an event contained in Wald's translation of Taylor's "Medical Jurisprudence," which occurred near Oschatz, near Leipzig, in 1848. A considerable number of guests attended a festivity consisting of a dinner and supper, and it was found that twenty-eight of the number who had partaken of both meals became seriously ill, while those of them who had left before supper-time remained perfectly well. Among the dishes served up at the supper were raw and cooked ham and Russian salad, this last containing among other things raw ham and brain sausage. The twenty-eight patients resided at various places, and were attended by eleven Medical men, some of whom believed the symptoms due to poisoning by copper, or arsenic, but most considered them as the result of indigestion. Two deaths occurred, and nothing explanatory was elicited by the autopsies; and the legal investigation led to no result. The details of this occurrence, related by Dr. Ströfer in the *Deutsch Zeitsch für Staatsarz*, 1850, p. 71, exhibit several circumstances which are now recognised as characteristic of trichiniasis. We believe that several obscure cases of supposed poisoning occurring in our own country would admit of a similar explanation.

GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

MINUTES OF MEETING, MONDAY, APRIL 25, 1864.

ROYAL COLLEGE OF PHYSICIANS, LONDON.

DR. BURROWS, *President*, in the chair,

Present—

Dr. Alderson.	Dr. Andrew Wood,	Dr. Corrigan.
Mr. Arnott.	Dr. Fleming,	Dr. Sharpey.
Mr. Cooper.	Mr. Syme.	Dr. Parkes.
Dr. Acland.	Dr. Thomson.	Dr. Quain,
Dr. Paget.	Dr. A. Smith.	Mr. Rumsey.
Dr. Embleton.	Mr. Hargrave.	Dr. Christison.
Dr. Storrar.	Dr. Leet.	Dr. Stokes.
Dr. Alexander Wood.	Dr. Apjohn.	

Dr. FRANCIS HAWKINS, *Registrar*.

The Minutes of the last meeting were read and confirmed.

The following Committees were appointed:—

Business Committee.

Dr. Andrew Wood, Chairman.	Dr. Corrigan.
Dr. Embleton.	Mr. Rumsey.

Finance Committee.

Dr. Sharpey, Chairman.	Dr. Aquilla Smith.
Mr. Arnott.	Dr. Quain.
Dr. Fleming.	

Committee on Returns received from the Bodies in Schedule (A).

Dr. Embleton, Chairman.	Dr. Leet.
Mr. Cooper.	Dr. Apjohn.
Dr. Thomson.	Dr. Stokes.

1. Moved by Dr. ANDREW WOOD, seconded by Dr. ALEXANDER WOOD—"That reporters be admitted to the meetings of the General Medical Council."

(First Amendment.)

Moved by Dr. ACLAND, seconded by Dr. CHRISTISON—"That a Committee be appointed to consider, and to report to the present meeting, the advantages and the disadvantages to the business of the Council which may arise from the admission of reporters; and to suggest the various ways in which (should the Council resolve to introduce them) they might be admitted to the Council, Branch Councils, or Committees."

(Second Amendment.)

Moved by Dr. THOMSON, seconded by Mr. COOPER—"That the Council deem it expedient and desirable that their proceedings should be published, and that a Committee be forthwith appointed to consider and report upon the best means of accomplishing this object."

The Second Amendment was put to the vote, and the numbers were found to be equal for and against it.

The PRESIDENT then gave his casting vote in favour of the amendment.

Dr. ANDREW WOOD required that the names for and against the amendment should be taken down.

For the Amendment.	*Against the Amendment.*
The President.	Dr. Alderson.
Mr. Arnott.	Dr. Embleton.
Mr. Cooper.	Dr. Alexander Wood.
Dr. Acland.	Dr. Andrew Wood.
Dr. Paget.	Dr. Fleming.
Dr. Storrar.	Mr. Syme.
Dr. Thomson.	Dr. Smith.
Dr. Sharpey.	Mr. Hargrave.
Dr. Quain.	Dr. Leet.
Mr. Rumsey.	Dr. Apjohn.
Dr. Christison.	Dr. Corrigan.
Dr. Stokes.	Dr. Parkes.

The following Members of Council were appointed a Committee to consider and report as to the best mode of publishing the proceedings of the Council:—

Dr. Thomson, Chairman.	Dr. Apjohn.
Mr. Cooper.	Dr. Corrigan.
Dr. Storrar.	Mr. Rumsey.
Dr. Alexander Wood.	Dr. Stokes.

Moved by Dr. ALEXANDER WOOD, seconded by Dr. STOKES—"That the Committee appointed to consider the best means of publishing the proceedings of the Council be requested to report to-morrow, and that the consideration of that report take precedence of all other business."—Agreed to.

2. Moved by Dr. QUAIN, seconded by Dr. ANDREW WOOD—"That a Committee be appointed to revise the standing orders."—Agreed to.

The Committee to consist of—

Dr. Christison, Chairman.	Dr. Corrigan.
Dr. Storrar.	Dr. Quain.
Dr. Alexander Wood.	

Confirmed—GEORGE BURROWS, *President*.

MINUTES OF MEETING, TUESDAY, APRIL 26, 1864.

ROYAL COLLEGE OF PHYSICIANS, LONDON.

Dr. BURROWS, *President*, in the chair.

Present—As before.

The Minutes of the last meeting were read and confirmed.

1. Dr. THOMSON presented the following Report from the Committee appointed to consider the best means of publishing the proceedings of the Council.

Report.

The Committee on publication of the Proceedings of the Council, met this day, and having considered the matter remitted to them by the Council, agreed by a majority to adopt the following resolutions, and directed the chairman to lay these resolutions before the Council as the report of the committee.

1. That reporters be admitted to the meetings of the Council.
2. That a special reporter be engaged by the Council to prepare a report of the proceedings.
3. That the Council reserve the power of witholding the privilege of admission to reporters, whenever the Council may think fit.

ALLEN THOMSON, *Chairman*.

Moved by Dr. THOMSON, seconded by Mr. HARGRAVE—"That the report be received."—Agreed to.

Moved by Dr. THOMSON, and seconded by Dr. STOKES—"That the report be adopted."

Amendment moved by Mr. SYME, and seconded by Dr. ANDREW WOOD—"That the Council proceed to consider the resolutions contained in the Report separately."—The amendment was carried.

Moved by Mr. SYME, seconded by Dr. ANDREW WOOD—"That the first resolution of the Report be adopted."

Amendment moved by Dr. ALDERSON, seconded by Dr. QUAIN—"That the second resolution of the report be first considered."

The amendment was negatived.

The motion was then put to the vote, and carried.

Moved by Dr. A. SMITH, seconded by Mr. ARNOTT—"That the second resolution of the Report be adopted."—Agreed to.

Moved by Dr. A. SMITH, seconded by Mr. ARNOTT—"That the third resolution of the Report be adopted."—Agreed to.

Moved by Dr. PARKES, seconded by Dr. FLEMING—"That the Business Committee, with the President and the Registrar, be appointed to carry into effect the foregoing resolutions."

2. Dr. CHRISTISON presented the following Report of the Committee appointed to revise the Standing Orders:—

Report.

The Standing Orders Committee appointed on the 25th instant to revise the Standing Orders of the Council, report that they have for the present confined their attention to Articles 7, 8, 9, and 10 of Section III., "Order of Business." They recommend that these articles be repealed, and that the following be substituted:—

1. That the seconder of a motion may, if he pleases, reserve his speech.
2. That, if an amendment be proposed on a motion, the amendment shall be disposed of before any other amendment shall be moved.
3. That such amendment shall first be put to the vote; that if it be negatived, a second amendment may be moved, and shall be disposed of in the same way as the first amendment; and so on until no further amendment shall be proposed.
4. That, should every amendment be negatived, the original motion shall then be put to the vote.
5. That, if any amendment be carried, it shall then be put as a substantive motion, and treated, as to further amendments, and the right of speaking on it, in all respects as an original motion.

Moved by Dr. CHRISTISON, seconded by Dr. STORRAR—"That the Report be received."—Agreed to.

Moved by Dr. ALEXANDER WOOD, seconded by Dr. PARKES—"That the resolutions of the Report of the Committee on Standing Orders be considered *seriatim*."—Agreed to.

Moved by Dr. ALEXANDER WOOD, seconded by Mr. ARNOTT—"That the first resolution of the Report of the Committee on Standing Orders be adopted."—Agreed to.

Moved by Mr. ARNOTT, seconded by Dr. STORRAR—"That the second resolution of the Report be adopted."

Amendment moved by Dr. ALEXANDER WOOD, seconded by Mr. SYME—"That the present standing orders, in regard to the number of amendments that may be moved on any motion, be not altered."

The amendment was negatived.

The motion was then put to the vote and carried.

Moved by Dr. STORRAR, seconded by Mr. ARNOTT—"That the third resolution be adopted."—Agreed to.

Moved by Dr. STORRAR, seconded by Mr. HARGRAVE—"That the fourth resolution be adopted."—Agreed to.

Moved by Mr. HARGRAVE, seconded by Mr. ARNOTT—"That the fifth resolution be adopted."—Agreed to.

3. Moved by Mr. ARNOTT, seconded by Dr. PAGET—"That the number of members of the Executive Committee be confined to four, exclusive of the President."—Agreed to.

Moved by Mr. ARNOTT, seconded by Mr. SYME—"That the members of

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the Executive Committee shall be elected by ballot, by means of marked lists."—Agreed to.

4. Moved by Dr. ANDREW WOOD, seconded by Dr. EMBLETON—"That the claims of Messrs. Spottiswoode, referred to the General Council by the Executive Committee, be now referred to the Finance Committee, to be reported on by them."—Agreed to.

Confirmed—GEORGE BURROWS, President.

MINUTES OF MEETING, WEDNESDAY, APRIL 27, 1864.

ROYAL COLLEGE OF PHYSICIANS, LONDON.

Dr. BURROWS, *President*, in the chair.

Present—As before.

The Minutes of the last meeting were read and confirmed.

1. Moved by Dr. QUAIN, seconded by Mr. HARGRAVE—"That a Committee be appoined to consider and report on the arrangements to be made for producing the next edition of the British Pharmacopœia."—Agreed to.

The Committee to consist of—

Dr. Christison, Chairman.	Dr. Apjohn.
Dr. Acland.	Dr. Quain.
Dr. Alderson.	Dr. A. Smith.

2. Moved by Dr. STORRAR, seconded by Dr. SHARPEY—"That the Council do now resolve itself into a Committee on Education."—Agreed to.

3. Moved by Dr. STORRAR, seconded by Dr. ALEXANDER WOOD—"That the President be requested to take the chair and preside over the Committee."—Agreed to.

1. Moved by Dr. STORRAR, seconded by Mr. HARGRAVE—"That the Committee proceed to consider, one by one, the recommendations of the Council relating to general and professional education and examination."

Amendment moved by Mr. SYME, seconded by Dr. ANDREW WOOD—"That the Committee do now proceed to consider the whole subject of Medical education and examination, with the view of preparing a report for the guidance of licensing bodies."

The Amendment was negatived.

The Motion was then put to the vote, and carried.

2. Moved by Dr. STORRAR, seconded by Dr. SHARPEY—"That the first Recommendation, viz., 'That all students pass an examination in general education before they commence their Professional studies,' be adopted."

Amendment moved by Dr. ACLAND, seconded by Dr. PAGET—"That the first resolution stand as follows:—'That all students pass an examination on subjects to be included under the head of general education prior to the date from which the commencement of their Professional studies is to be reckoned."

The Amendment was negatived.

The Motion was then put to the vote, and carried.

3. Moved by Dr. STORRAR, seconded by Dr. SHARPEY—"That the second resolution be adopted, viz., 'That the time of commencing Professional studies shall be understood to be the time of commencing studies at a Medical school; and that no qualifying body be held to have complied with the recommendation of the Council which shall allow the examination in general education to be passed after the commencement of Professional study.'"

Amendment moved by Mr. ARNOTT, seconded by Dr. A. SMITH—"That 'the time of commencing Professional studies shall be understood to be the time of commencing studies at a Medical school,' be transferred to the Recommendations on Professional education."

The Amendment was carried.

Amendment moved by Mr. ARNOTT, seconded by Dr. ACLAND—"That the concluding paragraph of the second recommendation, viz., 'That no qualifying body be held to have complied with the recommendation of the Council which shall allow the examination in general education to be passed after the commencement of Professional study,' be omitted."

The Amendment was carried.

Moved by Dr. PARKES, seconded by Mr. HARGRAVE—"That testimonials of proficiency granted by the national educational bodies, according to the subjoined list, may be accepted, the Council reserving the right to add to, or take from, the list."

1. A Degree in Arts of any University of the United Kingdom, or of the Colonies, or of such other Universities as may be specially recognised from time to time by the Medical Council.
2. Oxford Responsions or Moderations.
3. Cambridge Previous Examinations.
4. Matriculation Examination of the University of London.
5. Oxford Middle Class Examinations (Senior).
6. Cambridge Middle Class Examinations (Senior).
7. Durham Middle Class Examinations (Senior).
8. Durham Examinations for Students in Arts, in their second and first years.
9. Durham Registration Examination for Medical Students.
10. Dublin University Entrance Examination.
11. Queen's University, Ireland, Two Years' Arts Course for the Diploma of Licentiate in Arts.
12. Preliminary Examinations at the end of A.B. Course.
13. Middle Class Examinations.
14. Matriculation Examinations.
15. First Class Certificate of the College of Preceptors.
16. "Testamur" granted by Codrington College, Barbadoes.
17. Degree of Associate of Arts granted by the Tasmanian Council of Education, with a Certificate that the Student has been examined in Latin and Mathematics.

Amendment moved by Dr. CORRIGAN, seconded by Mr. RUMSEY—"That Testimonials of Proficiency granted by the National Educational Bodies according to the List contained in the Third Recommendation, be accepted, provided that the Examinations conducted by those Bodies comprise at least the following subjects:—English, Greek, Latin, Mathematics, Arithmetic to the end of Decimal Fractions, One Modern Language."

The amendment was negatived.

Amendment moved by Dr. ALEXANDER WOOD, seconded by Dr. ANDREW WOOD—"That a Minimum Standard of Preliminary Education and Examination shall be fixed by the Council; that Testimonials of Proficiency granted by the National Educational Bodies may be admitted, provided the Council deem the Education required by them to be sufficient; and that a Sub-Committee be appointed to prepare a Minimum Standard to be submitted to the Council for its consideration."

At six o'clock the Meeting of the General Committee was adjourned.

Confirmed—GEORGE BURROWS, President.

MINUTES OF MEETING, THURSDAY, APRIL 28, 1864.

ROYAL COLLEGE OF PHYSICIANS, LONDON.

Present—As before.

Dr. BURROWS, *President*, in the Chair.

The Minutes of the last meeting were read and confirmed.

1. Moved by Dr. STORRAR, seconded by Mr. HARGRAVE—"That the Council do now resolve itself into a Committee on Education."—Agreed to.

2. Moved by Dr. ALEXANDER WOOD, seconded by Dr. STORRAR—"That the President be requested to take the chair, and preside over the Committee."—Agreed to.

1. The Committee resumed the consideration of the amendment moved, at the last meeting, by Dr. ALEXANDER WOOD, seconded by Dr. ANDREW WOOD, viz.—"That a minimum standard of preliminary examination shall be fixed by the Council; that testimonials of proficiency granted by the National Educational Bodies may be admitted, provided the Council deem the education required by them to be sufficient; and that a sub-Committee be appointed to prepare a minimum standard to be submitted to the Council for its consideration."

The amendment was negatived.

The original motion, moved, at the last meeting, by Dr. PARKES, seconded by Mr. HARGRAVE, was then put to the vote, viz.—"That testimonials of proficiency granted by the National Educational Bodies according to the subjoined list may be accepted, the Council reserving the right to add to, or take from, the list."—Carried.

1. A Degree in Arts of any University of the United Kingdom, or of the Colonies, or such other Universities as may be specially recognised from time to time by the Medical Council.
2. Oxford Responsions or Moderations.
3. Cambridge Previous Examinations.
4. Matriculation Examination of the University of London.
5. Oxford Middle Class Examinations (Senior).
6. Cambridge Middle Class Examinations (Senior).
7. Durham Middle Class Examinations (Senior).
8. Durham Examinations for Students in Arts, in their second and first years.
9. Durham Registration Examination for Medical Students.
10. Dublin University Entrance Examination.
11. Queen's University, Ireland, Two Years' Arts Course for the Diploma of Licentiate in Arts.
12. Preliminary Examinations at the end of A.B. Course.
13. Middle Class Examinations.
14. Matriculation Examinations.
15. First Class Certificate of the College of Preceptors.
16. "Testamur" granted by Codrington College, Barbadoes.
17. Degree of Associate of Arts granted by the Tasmanian Council of Education, with a Certificate that the Student has been examined in Latin and Mathematics.

2. Moved by Dr. STORRAR, seconded by Mr. ARNOTT—"That the fourth recommendation of the Council be adopted, viz., 'That the Examination in General Education be eventually left entirely to the Examining Boards of the National Educational Bodies recognised by the Medical Council.'"

Amendment moved by Dr. STOKES, seconded by Mr. SYME—"That with the view of saving time, a sub-Committee be appointed, for the purpose of preparing a report on the subject of Medical Education, which may form a definite basis for the discussions of the question in the General Council."

The Amendment was negatived.

The Motion was then put to the vote, and carried.

3. Moved by Dr. STORRAR, seconded by Dr. SHARPEY—"That the fifth recommendation of the Council be adopted, viz., 'That no Certificate of Proficiency in General Education, which does not affirm the proficiency of the Candidate in Latin, be deemed a sufficient proof of Preliminary Education previous to the commencement of Professional Studies."

Amendment moved by Dr. CORRIGAN, seconded by Dr. APJOHN—"That no Certificate of Proficiency in General Education, which does not affirm an acquaintance with Greek and Latin, be deemed a sufficient proof of Preliminary Education previous to the commencement of Professional Studies."

The Amendment was negatived.

The Motion was then put to the vote, and carried.

4. Moved by Dr. STORRAR, seconded by Dr. SHARPEY—"That the sixth recommendation be adopted, viz., 'That Students who cannot produce any of the Testimonials referred to in the Third Resolution, be required to pass an Examination in Arts, established by any of the Bodies named in Schedule (A) of the Medical Act, and approved by the General Council, provided that such an Examination be in every case conducted by a Special Board of Examiners in Arts.'"

Amendment moved by Dr. CORRIGAN, seconded by Mr. HARGRAVE—"That the words after 'General Council' in the fifth line of the sixth recommendation be omitted; and that the recommendation be adopted as thus amended."

The amendment was carried.

5. Moved by Dr. STORRAR, seconded by Dr. SHARPEY—"That the seventh recommendation be adopted—viz., 'That, without professing to lay down any complete scheme of general education for persons intending to become members of the Medical Profession, the Committee recommend that the scheme of examination in arts of the licensing bodies be, as nearly as practicable, similar to that of any of the national educational bodies above specified.'"

The motion was put to the vote, and negatived.

6. Moved by Dr. STORRAR, seconded by Dr. EMBLETON—"That the eighth recommendation be adopted as follows:—'That all Medical students be required to be registered.'"—Agreed to.

7. Movey by Dr. STORRAR, seconded by Dr. A. SMITH—"That the ninth recommendation be adopted—viz., 'That the lists of students registered be closed within fifteen days after the commencement of each session or term.'"—Agreed to.

8. Moved by Dr. STORRAR, seconded by Dr. A. SMITH—"That the tenth recommendation be adopted—viz., 'That no student beginning Professional study after September, 1861, be registered who has not passed an arts examination in conformity with Resolutions 3 or 6.'"

Amendment, moved by Dr. ALEXANDER WOOD, seconded by Dr. ACLAND—"That a Sub-Committee be appointed to consider the best scheme of registering Medical students."

The amendment was carried, and the following Committee appointed:—

Dr. Alexander Wood, Chairman.	Dr. Fleming.
Mr. Arnott.	Dr. Apjohn.
Dr. Embleton.	Dr. Stokes.

Confirmed—GEORGE BURROWS, *President*.

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MINUTES OF MEETING, FRIDAY, APRIL 29, 1864.

ROYAL COLLEGE OF PHYSICIANS, LONDON.

Dr. BURROWS, *President*, in the chair.

Present—As before.

The Minutes of the last meeting were read and confirmed.

1. Read the following letter and correspondence :—

"Catholic University of Ireland, 86, Stephen's-green, Dublin, April 18, 1864.

"Sir,—I have the honour to enclose, for the information of the General Medical Council, a copy of a correspondence between our institution and the Registrar of the Branch Council, Ireland.

"By this it will be seen that we have been recommended by the Branch Council to make application to the General Medical Council in order to obtain recognition of our entrance examination.

"I have also done myself the honour to forward two copies of our calendar for the present year, by which it will be seen that our University gives as complete an education as institutions which are recognised by your Council (pp. 48 to 52).

"May I beg that you will do us the favour to submit to the Council our application to have our entrance examination recognised by them, and may I hope that the Council will favourably entertain our request?

"I am, Sir, your obedient servant,
(Signed) "THOMAS SCRATTON, Sec. Cath. Univ.

"Dr. Hawkins, Registrar, 32, Soho-square, London, W."

Copy.

"Branch Medical Council, Ireland, 35, Dawson-street, Dublin, March 9, 1864.

"Sir,—I am directed by this Branch Council to request that you will have the goodness to inform me whether any students are pursuing their Professional studies in your Medical school who had not previously passed an examination in general education recognised by the General Medical Council; and if so, that you will be so good as to state their number.

"I am, Sir, your obedient servant,
(Signed) "WM. EDW. STEELE, M.D., Registrar.

"Secretary, Catholic University, Stephen's-green South."

Copy.

"86, Stephen's-green, S., March 18th, 1864.

"SIR,—In reply to your letter of the 9th inst., I beg to say that I have learned from the Honorary Secretary of our Medical Faculty that the information you ask has already been supplied through the Registrar of the Royal College of Surgeons of Ireland.

"However, in order to guard against some mistakes into which your Council may be led by these formal returns, I am directed further to state, that several of our Medical students have attained considerable proficiency in general education, although we have no official mode of knowing whether they have passed an examination recognised by your Central Council. The authorities of this University are most anxious to advance the general education of our Medical students, and will be happy to carry out, as far as possible, the wishes of the General Medical Council, and the regulations it may make for that purpose. By offering Exhibitions and other advantages, the Rector and University Council have endeavoured to induce the students in Medicine to matriculate in Arts also, and to attend lectures in philosophy and letters, and in Science.

"A large number are now availing themselves of these advantages, and have passed our Entrance Examination; and of that number eleven have passed the Scholarship (as it is called in this University), or *Responsions*, at the end of their second year of general studies, while two have passed the B.A. Examination, and several are preparing to pass that Examination in the course of this year.

"As it appears from the recent Census returns, that in 1861, of 954 Medical students in Ireland, 329, or more than one-third, were Catholics, over whom, without doubt, the Catholic prelates at the head of this institution have considerable influence, the Rector and Council of this University think they may safely say, that a much larger number would enter for general education could we offer them the inducement of a Degree in Arts or Science recognised by law.

"In conclusion, I am directed to send, for the information of your Branch Council, and of the General Medical Council, two copies of our University Calendar for this year, inviting your attention to our Regulations regarding Matriculation and Degrees (pp. 48 to 52). You will there see that even for entrance into this University we require a knowledge of one Greek and one Latin book from the following list; and also of Arithmetic, Algebra (as far as simple Equations inclusively), Euclid, etc.

"ENTRANCE OR MATRICULATION EXAMINATION.

"Each candidate for entrance must be recommended by the person who last had the care of his education, and by his Bishop, or by one of the clergymen of his parish. He presents himself, in the first place, to the Dean of the House which he wishes to join, or to the Vice-Rector, if he wishes to be an Extern.

"Candidates for Entrance will be examined :—

"1. In the Christian Doctrine.

"2. In any one Greek and any one Latin Book, of their own selection, rom the following Entrance Lists :—

GREEK.	LATIN.
Herodotus, Book i.	Virgil, Georgics, any two books.
Xenophon's Anabasis.	,, Æneid, any four books.
Plato, Apologia Socratis.	,, Bucolics, with one book of Georgics, or two of Æneid.
Lucian, Walker's Selections.	Horace, Odes, any three books.
Homer's Iliad, Books i. ii. iii.	" Satires or Epistles.
Sophocles, any play.	Cicero, Select Orations, viz., in Catilinam, i.—iv., pro Milone, pro Lege Manilia, and pro Archia.
Euripides, any play.	Livy, Books i., ii., iii., or iv., v.

"3. They will further be examined in—

Arithmetic.	The Elements of Ancient and Modern History.
Algebra, as far as Simple Equations, inclusively.	The Elements of Modern Geography.
Euclid, Books i. ii.	Latin Prose Composition.
English Composition.	
The Rudiments of French	

"The Degree Examination which we prescribe is as high as that required by other Universities.

"We respectfully submit that even the former of these Examinations indicates a state of education fully equal to that recognised by you, and we therefore respectfully request the General Medical Council to recognise the examinations presented by this University.

"I am, Sir, your obedient Servant,
"(Signed) THOMAS SCRATTON, Sec. Cath. Univ.

"Wm. Edw. Steele, Esq., Registrar, 35, Dawson-street."

Copy.

"Branch Medical Council, Ireland, 35, Dawson-street, Dublin, March 21, 1864.

"Sir,—I beg to acknowledge the receipt of your letter of the 18th inst., together with two copies of the Calendar of your University, for which latter permit me to offer my thanks.

"Referring to the latter part of your letter, in which you apply for the recognition by the Council of the entrance examination of the University, I take the liberty of suggesting your applying to the General Medical Council, 32, Soho-square, London, W., the registrar of which is Dr. Hawkins, on the subject, it being very unlikely that the Branch Council will meet previously to the assembling of the former in London.

"I am, Sir, your obedient Servant,
"(Signed) WM. EDW. STEELE, M.D., Registrar.

"Thomas Scratton, Esq., Secretary, Catholic University, Stephen's-green."

Moved by Dr. CHRISTISON, seconded by Dr STORRAR :—"That the following answer be returned by the registrar, to the communication now before the Council :"

"Sir,—I have laid before the General Medical Council your letter of the 18th inst, requesting that the entrance examination of 'The Catholic University of Ireland' should be recognised among the examinations in preliminary education received from the various chartered or incorporated educational bodies; and in reply I am directed to request you will have the kindness to transmit to the General Medical Council a copy of the Charter or Act of Incorporation of 'the Catholic University.'"—Agreed to.

2. Dr. CHRISTISON presented the following Report of the Committee appointed on April 28, 1864, relative to the Pharmacopœia :—

Report.

The Committee report—

1. That it is desirable to make further arrangements during the present session of Council for preparing the next edition of the British Pharmacopœia.

2. That a Committee of the Council be appointed to superintend the preparing for the press, and the editing of the work, and to submit the same to the Council for approval in proof.

3. That the gentlemen already nominated in London, Edinburgh, and Dublin, for the purpose of reporting from time to time on the improvements in Pharmacy, be requested to continue their services, and that their reports be communicated to the Pharmacopœia Committee of the Council.

4. That an editor or editors shall be appointed by the Pharmacopœia Committee, who shall prepare the work, in all its details, under their control.

Moved by Dr. STORRAR, seconded by Dr. CHRISTISON :—That the Report of the Committee relative to the Pharmacopœia be received and entered on the minutes."—Agreed to.

3. Moved by Dr. ANDREW WOOD, seconded by Mr. HARGRAVE :—"That the Council resolve itself into a Committee, and that the President be requested to take the chair.—Agreed to.

1. Dr. ALEXANDER WOOD presented the following report from the Sub-Committee on the best scheme of Registering Medical Students :—

REPORT OF THE SUB-COMMITTEE ON REGISTRATION OF MEDICAL STUDENTS.

Your Sub-Committee is of opinion that the registration of Medical Students, if properly conducted, is a matter of primary importance, as giving security to the Council and the Profession.

1. That every student has passed an examination in arts before commencing his Professional studies.

2. That the exact date at which a student has commenced his Professional studies has been ascertained and registered, so as to show how far the recommendations of the Council in these respects have been complied with.

The chief difficulties which past experience has shown to exist appear to your Committee to be—

1. The want of a sufficient distinction between students commencing their studies and those who may be commencing their second, third, or fourth sessions.

2. The fact that many students enter at several different schools at the same time.

Having regard to these difficulties, your Sub-Committee begs to recommend the following regulations, as at once simple and practical :—

1. That the registration be placed under the charge of the branch registrars.

2. That each student be only once registered, and that when he first enrols himself as a Medical student.

3. That the registrar of each School of Medicine, or other authorised person, keep a list of all students entering for the first time at that school, agreeably to the subjoined form.

4. That the register at each school be closed within fifteen days after the commencement of each session or term.

5. That these lists, as soon as possible thereafter, be transmitted, along with the certificates of each student having passed an arts examination, to the branch registrar of that division of the kingdom where the school is situated, and that he from them frame an accurate register of Medical students of that division of the kingdom where he has charge.

6. That the register of Medical students so prepared by the registrars, after examination by the several Rranch Councils, be transmitted to the Registrar of the General Council, who shall, under direction of the Executive Committee, print the same in alphabetical order, and supply a copy of this authorised list to each of the bodies in Schedule (A) to the Medical Act.

7. That the several licensing bodies be requested, after October, 1868, to abstain from examining any candidate for license or degree whose name does not appear on the authorised list of Medical students.

8. That the Branch Councils be desired to take means to make these regulations known to the Medical Students at the various Medical Schools.

ALEXANDER WOOD, *Chairman.*

Form of Register of Medical Students.

Name.	Age last Birthday.	Prelim. Examin. and Date.	Date of Registration.	Place of Study.

Moved by Dr. ANDREW WOOD, seconded by Dr. EMBLETON—"That the report of the Sub-Committee on registration of Medical students be received and entered on the Minutes."—Agreed to.

Moved by Dr. ANDREW WOOD, seconded by Dr. EMBLETON—"That the consideration of the report on the registration of Medical students be deferred till after the discussion of the question of Professional education."—Agreed to.

2. Moved by Dr. STORRAR, seconded by Dr. PAGET—"That the seventeenth recommendation of the Council be adopted, viz., 'That the age of twenty-one be the earliest age at which any Professional licence shall be obtained."

Amendment moved by Mr. SYME, seconded by Dr. ANDREW WOOD—"That the Committee proceed to consider the subjects and course of study requisite for a Medical Professional education."

The Amendment was carried.

3. Moved by Mr. SYME, seconded by Dr. ANDREW WOOD—"That the Council proceed to frame a course of study for Medical education, which may be recommended to the licensing bodies."

The debate on this subject not being concluded at six o'clock, it was moved by Dr. THOMSON, seconded by Dr. PARKES—"That the Committee do now adjourn."—Agreed to.

Confirmed—GEORGE BURROWS, *President.*

MINUTES OF MEETING, SATURDAY, APRIL 30, 1864.

ROYAL COLLEGE OF PHYSICANS, LONDON.

Dr. BURROWS, *President*, in the chair.

Present—As before.

The Minutes of the last Meeting were read and confirmed.

Moved by Dr. THOMSON, seconded by Dr. PARKES—"That the Council resolve itself into a Committee on Education, and that the President be requested to take the chair."—Agreed to.

The debate was resumed on the motion, which was moved at the last meeting by Mr. Syme, and seconded by Dr. Andrew Wood—viz., "That the Council proceed to frame a course of study for Medical education which may be recommended to the licensing bodies."

Amendment moved by Dr. THOMSON, seconded by Dr. SHARPEY—"That, instead of proceeding to frame a course of study for Medical education, etc, the Council adopt the following resolution:—

"'That, viewing with general approval the conditions required by the different bodies enumerated in Schedule (A) of the Medical Act of candidates for a qualification, the Council do not think it expedient, for the present, to proceed to frame a complete or formal scheme of Professional education and examination. But, in order to indicate the general nature of their views upon this subject, they resolve to communicate the following recommendations for the guidance of the various licensing boards:—

"'1. That twenty-one years be the earliest age at which a Professional licence can be obtained.

"'2. That no licence be obtained at an earlier period than four years after the registration of the candidate as a Medical student.

"'3. That the course of study required for a licence shall comprehend not less than four winter sessions, or three winter and two summer sessions at a recognised Medical School; and that evidence shall be produced that the remaining period of the four years has been passed in the acquisition of Professional knowledge.

"'4. That the Professional examination be divided into at least two parts; that the first of these, embracing the preparatory branches of study, be not undergone before the conclusion of the second sessional year of nine months; and that the final examination be not undergone till the completion of the whole prescribed course of study, nor at an earlier period than three years and nine months after the commencement of Professional study.

"'5. That the Professional examinations be conducted partly in writing and partly *viva voce;* and in all parts which admit of it, also practically and by demonstrations.

"'6. That the Council recommend to the several Licensing Bodies that the courses of instruction required by them severally should be framed in such a manner as to secure a due share of attention, both to the preparatory and to the final, or more strictly practical, branches, and by class examinations, and all other means which may be deemed proper, to promote, as far as possible, the self-culture and useful practical education of those who seek to obtain a licence. The Council would accordingly suggest to these bodies that it is desirable to avoid enforcing attendance upon a large number of courses of instruction during the same term of study, and to arrange the subjects of examination in such a manner as will guide the student in the most approved order of study.

"'7. That the regulation of the extent and duration of courses of lectures and instruction be left to the authorities of the several Medical schools; and that in the case of branches of scientific study, not purely Professional, which are included in the curriculum, the scope and extent of attainment required of the candidates be indicated by means of a published conspectus of the subjects of examination to be issued by the several Examining Boards.

"'8. That with a view to secure fairness and efficiency in examinations, the Council resolve to institute a system of supervision or inspection, to be conducted in the meantime for each division of the country, under the direction of its Branch Council; the results of which supervision are to be reported annually to the General Council.'"

At a quarter before six o'clock the debate was adjourned.

2. Moved by Dr. ACLAND, seconded by Dr. EMBLETON—"That the Council resume."—Agreed to

1. Moved by Dr. QUAIN, seconded by Mr. RUMSEY—"That the report of the Committee on the Pharmacopœia be adopted."—Agreed to. (See Minutes, No. 62, p. 6.)

Confirmed—GEORGE BURROWS, *President.*

MINUTES OF MEETING, MONDAY, MAY 2, 1864.

ROYAL COLLEGE OF PHYSICIANS, LONDON.

Dr. BURROWS, *President*, in the Chair.

Present—As before.

The Minutes of the last meeting were read and confirmed.

1. Moved by Dr. QUAIN, seconded by Mr. SYME—"That the Pharmacopœia Committee consist of four members:

"Dr. Christison, *Chairman.* "Dr. Sharpey.
"Dr. Apjohn. "Dr. Quain."

—Agreed to.

2. Moved by Dr. ACLAND, seconded by Dr. ANDREW WOOD—"That the Council resolve itself into a Committee on Education, and that the President be requested to take the chair."—Agreed to.

1. The Debate was resumed on the Motion, which was moved by Mr. SYME at the meeting on the 29th of April (see Minutes, No. 62, p. 10), and seconded by Dr. ANDREW WOOD, viz.:—"That the Council proceed to frame a Course of Study for Medical Education, which may be recommended to the Licensing Bodies;"

And on the amendment, moved by Dr. THOMSON, seconded by Dr. SHARPEY, viz.:—"That, instead of proceeding to frame a Course of Study for Medical Education, etc., the Council adopt the following resolution:—

"That, viewing with general approval the conditions required by the different Bodies enumerated in Schedule (A) of the Medical Act, of Candidates for a Qualification, the Council do not think it expedient, for the present, to proceed to frame a complete or formal Scheme of Professional education and examination. But, in order to indicate the general nature of their views upon this subject, they resolve to communicate the following recommendations for the guidance of the various Licensing Boards:—

"1. That Twenty-one years be the earliest age at which a Professional Licence can be obtained.

"2. That no Licence be obtained at an earlier period than four years after the registration of the candidate as a Medical Student.

"3. That the course of study required for a Licence shall comprehend not less than four winter sessions, or three winter and two summer sessions at a recognised Medical school; and that evidence shall be produced that the remaining period of the four years has been passed in the acquisition of Professional knowledge.

"4. That the Professional examination be divided into at least two parts; that these, embracing the preparatory branches of study, be not undergone before the conclusion of the second sessional year of nine months; and that the final examination be not undergone till the completion of the whole prescribed course of study, nor at an earlier period than three years and nine months after the commencement of Professional study.

"5. That the Professional examinations be conducted partly in writing and partly *viva voce;* and, in all parts which admit of it, also practically and by demonstrations.

"6. That the Council recommend to the several licensing bodies that the courses of instruction required by them severally should be framed in such a manner as to secure a due share of attention, both to the preparatory and to the final, or more strictly practical, branches, and by class examinations, and all other means which may be deemed proper, to promote, as far as possible, the self-culture and useful practical education of those who seek to obtain a licence. The Council would accordingly suggest to these bodies that it is desirable to avoid enforcing attendance upon a large number of courses of instruction during the same term of study, and to arrange the subjects of examination in such a manner as will guide the student in the most approved order of study.

"7. That the regulation of the extent and duration of courses of lectures and instruction be left to the authorities of the several Medical Schools; and that in the case of branches of scientific study, not purely Professional, which are included in the curriculum, the scope and extent of attainment required of the candidates be indicated by means of a published conspectus of the subjects of examination to be issued by the several examining boards.

"8. That with a view to secure fairness and efficiency in examinations, the Council resolve to institute a system of supervision or inspection, to be conducted in the meantime for each division of the country under the direction of its Branch Council; the results of which supervision are to be reported annually to the General Council.

The Amendment was put to the vote, and negatived.

The original Motion was also negatived.

2. Moved by Dr. STORRAR, seconded by Dr. CHRISTISON—"That the seventeenth Recommendation of the Council be adopted."

Confirmed—GEORGE BURROWS, *President.*

MINUTES OF MEETING, TUESDAY, MAY 3, 1864.

ROYAL COLLEGE OF PHYSICIANS, LONDON.

Dr. BURROWS, *President*, in the chair.

Present—

Dr. Alderson.	Dr. Fleming.	Dr. Corrigan.
Mr. Arnott.	Mr. Syme.	Dr. Sharpey.
Mr. Cooper.	Dr. Thomson.	Dr. Parkes.
Dr. Paget.	Dr. A. Smith.	Dr. Quain.
Dr. Embleton.	Mr. Hargrave.	Mr. Rumsey.
Dr. Storrar.	Dr. Leet.	Dr. Christison.
Dr. Alexander Wood.	Dr. Apjohn.	Dr. Stokes.
Dr. Andrew Wood.		

Dr. FRANCIS HAWKINS, *Registrar.*

The Minutes of the last meeting were read and confirmed.

1. Moved by Mr. HARGRAVE, seconded by Mr. COOPER—"That the Council resolve itself into a Committee on Education, and that the President be requested to take the chair."

Amendment moved by Dr. CHRISTISON, seconded by Dr. STORRAR—

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"That the Council do not resolve itself into a General Committee of Education, but that a Select Committee be now appointed for the purpose of considering the recommendations of the Council on Professional education, and the various motions and notices of motions as to education which have been submitted to the Council, with the view of preparing such a report on Medical education as may be presented, and, if approved, passed during the present Session."

The amendment was carried.

Moved by Dr. CHRISTISON, seconded by Mr. SYME—"That the following be the Select Committee on Education:

"Dr. Christison, Chairman.	Dr. Thomson.
Mr. Arnott.	Mr. Apjohn.
Dr. Paget.	Dr Parkes.
Dr. Storrar.	Dr. Stokes."
Dr. Alexander Wood.	

—Agreed to.

2. Read the following reference to the Branch Councils made by the General Council on June 3, 1863 (see Minutes, vol. ii. p. 244):—"That the report of the Medical Acts Amendment Committee be forwarded to the Branch Councils for their observations thereon."

The observations of the Branch Councils, in pursuance of the foregoing reference, having been read, it was moved by Dr. CORRIGAN, seconded by Dr. A. SMITH—"That the observations of the Branch Councils be entered on the Minutes."—Agreed to.

BRANCH COUNCIL FOR ENGLAND, MARCH 4, 1864.

(See Minutes Branch Council for England, No. 20, p. 7.)

Moved by Dr. STORRAR, seconded by Mr. ARNOTT—"That the Branch Council, having given their attention to the Report of the Medical Acts Amendment Committee, forwarded by the General Council to the Branch Councils for their observations thereon, are of opinion that it is not expedient at the present time to engage in fresh legislation."—Agreed to.

SCOTTISH BRANCH OF GENERAL COUNCIL, APRIL 2, 1864.

(See Minutes Branch Council for Scotland, No. 29, p. 89.)

On the motion of Dr. ANDREW WOOD, it was resolved:—

I. That the Branch Council have considered the proposed Amendments on the Medical Act, remitted to them by the Medical Council for their observations thereon.

II. That the Branch Council believe that much of the dissatisfaction of the Medical Profession, with reference to the working of the Medical Act, has arisen from the faulty construction of some parts of that Act.

III. That, in an especial manner, this has been the case regarding two points, viz., 1st, The failure of Clause XL. to carry out its objects of protecting the registered Practitioner, and of enabling the public to distinguish between qualified and unqualified Practitioners; and, 2nd, The insufficiency of Clause XX. as regards provision for the enforcement of the regulations issued by the Medical Council in reference to Medical education.

IV. That the Branch Council, without expressing a definitive approval of any of the subjoined Clauses which have been proposed to be substituted for Clause XL., consider the subject well worthy of the mature consideration of the Medical Council.(a)

V. That the Branch Council approve of the Clause proposed to be substituted for Clause XX., viz.:—

"It shall be lawful for the General Council to lay down such regulations respecting the education and examination of Practitioners in Medicine, Surgery, and Pharmacy, as may appear to them fitted to insure adequate knowledge and skill in the several departments of the Profession; and the said General Council shall then submit said regulations to her Majesty's most Honourable Privy Council. And the said regulations, if sanctioned by the said Privy Council, shall then be obligatory upon all Universities, Colleges, and other bodies enumerated in Schedule (A) to this Act."

VI. That, in regard to the proposed clauses for the regulation of Pharmacy, the Branch Council, whilst they consider it very desirable that there should be certain legal regulations as to the sale of drugs in this country, with a view to the safety of the public, think that that object would be best carried out by means of special statute.

VII. That the Branch Council consider that the Medical Council, at their approaching meeting, should take the subject of the amendment of their Medical Acts into early consideration, with a view to their submitting the result of their deliberations regarding it (should they resolve that legislation is called for) to the Secretary of the Home Department, during the Session of the Council.

(a) Draft I.—"Any person not legally possessing any of the qualifications under Schedule (A) to this Act, who shall profess the practice of Medicine or Surgery, taking or using the name or title of a Physician, Doctor of Medicine, Doctor, Licentiate in Medicine or Surgery, Bachelor of Medicine, Surgeon, General Practitioner or Apothecary, or any name implying that he is a legally-qualified Practitioner, shall," etc., etc.

Draft II.—"Any person professing to undertake the treatment or cure of diseases, who shall wilfully and falsely pretend to be, or take or use the name of a Physician, Doctor, Bachelor of Medicine, Surgeon, General Practitioner, or Practitioner in Medicine or Surgery, Apothecary, or any name, title, prefix, addition, or description contained in Schedule (A) to this Act, or any other name, title, prefix, addition, or description implying that he is a legally qualified Medical Practitioner, not being possessed of a legal Medical qualification which would entitle him to registration, shall, upon a summary conviction for any such offence, pay a sum not exceeding £20."

Draft III.—Clause taken from the New Medical Act for Victoria:—

"On and after the day of , 186 , it shall not be lawful for any person, unless registered under this Act, to pretend to be, or take or use the name or title of a Physician, Doctor of Medicine, Licentiate in Medicine or Surgery, Master in Surgery, Bachelor of Medicine, Doctor, Surgeon, Medical or General Practitioner, or Surgeon, Apothecary, or Accoucheur, or Licentiate or Practitioner in Midwifery, or any other Medical or Surgical name or title; and every unregistered person so offending shall forfeit and pay a sum not exceeding £50, to be recovered in a summary way before any two Justices of the Peace, by any person suing for the same in any Court of Petty Sessions."

IRISH BRANCH OF GENERAL COUNCIL, MARCH 14, 1864.

(See Minutes Branch Council for Ireland, No. 50, p. 2.)

The Council resumed the consideration of the proposed amendments of the Medical Act, and altered certain of the Sections as follows:—

PREAMBLE—Omitting the first sentence, to the word "Practitioners,' also the words "And" and "moreover," in the following lines. Thus:—

"Whereas it is necessary for the safety and protection of the public, towards securing adequately educated Practitioners in the several Departments of Medicine Surgery, and Pharmacy: Be it therefore enacted, etc., etc."

SECT. XXIX.—Introducing the words, "Registrar of each Branch," after the word "The" in the first line. Thus:—

"The Registrar of each Branch Council may refuse to register any person who may have been convicted, in England or Ireland, of any felony or misdemeanour, or in Scotland of any crime and or offence; and if any registered person shall be so convicted, or shall, after due inquiry, be judged by the General Council to have been guilty of infamous conduct in a Professional respect, whether before or after registration, the General Council may, if they see fit, direct the Registrar to erase the name of such person from the Register."

SECT. XL.—Omitting the words, "or Surgeon," between the words, "Practitioner" and "Apothecary." Thus:—

"On and after the day of , 186 , it shall not be lawful for any person, unless registered under this Act, to pretend to be, or take or use the name or title of Physician, Doctor of Medicine, Licentiate in Medicine or Surgery, Master in Surgery, Bachelor of Medicine, Doctor, Surgeon, Medical or General Practitioner, Apothecary or Accoucheur, or Licentiate or Practitioner in Midwifery, or any other Medical or Surgical name or title; and every unregistered person so offending shall forfeit and pay a sum not exceeding £20, to be recovered in a summary way before the Justices of the Peace."

Resolved.—That the bill as now amended be adopted and communicated to the Registrar of the General Council, in accordance with the resolution of the said Council.

Moved by Dr. CORRIGAN, seconded by Dr. APJOHN—

"That the proposed Medical Bill, as amended by the Medical Acts Amendment Committee of last year, be forwarded to our solicitor, with directions to have it drafted, as soon as possible, and returned to the Executive Committee;

"That the Executive Committee take means to have the Bill so drafted laid on the table of the House of Commons, at the commencement of next Session of Parliament;

"That a copy of the Bill so drafted be forwarded without delay by the Executive Committee to the Branch Councils, to the several bodies enumerated in Schedule (A) of the Medical Act, to the Pharmaceutical Society, and the Press; so that all parties concerned may have ample opportunity, in the interval between publication of the Draft Bill and next meeting of Parliament, of considering the Bill, and of suggesting such amendments as they may desire.

"That the General Medical Council meet at as early a period as may be necessary next year, to consider the various Amendments that may be suggested in the interval, in order to insert in the bill such amendments as may meet their approbation."

Amendment, moved by Dr. STORRAR, and seconded by Mr. ARNOTT—"That looking to the great diversity of opinion which exists in Great Britain, in regard to the objects which it is desirable to obtain by an amendment of the Medical Acts, it is not at present expedient that the Council should engage in fresh legislation."

Moved by Dr. ALEXANDER WOOD, seconded by Mr. HARGRAVE:—"That the debate on the amendment of the Medical Acts be adjourned until Wednesday, the 4th of May."—Agreed to.

3. Dr. SHARPEY having presented the Report of the Finance Committee, it was moved by Dr. SHARPEY, seconded by Dr. PAGET—"That the Report be received and entered on the Minutes."

REPORT OF THE FINANCE COMMITTEE.

The Finance Committee beg leave to present, in the table subjoined, a statement of the estimated and actual income and expenditure of the year 1863; also an estimate of the income from ordinary sources, and of the expenditure, as far as the Committee are able to judge, for the year 1864. Appended is a statement of the Pharmacopœia account, exhibiting the expense incurred in the preparation and publication of the British Pharmacopœia, from the commencement of the undertaking up to April 19, 1864, except some incidental charges, estimated not to exceed £10; also the number of copies printed, and the present state of the sale of the work, with the proceeds of the sale up to the same date.

The sums advanced in former years on account of the Pharmacopœia have been included in the annual accounts laid before Parliament, and defrayed, along with the ordinary expenses of those years, by a percentage rate on the income of the three Branch Councils, as directed by the Medical Act. The Committee recommend that, when all the expenses of the publication shall have been defrayed out of the proceeds of the sale of the work, the surplus be reserved for investment as a Special Fund, available for the purposes of the Pharmacopœia.

The Committee further recommend that £50 be presented to Dr. Garrod in acknowledgment of special services rendered in the publication of the Pharmacopœia, which were undertaken by him at the request of the Executive Committee; also that gratuities be given of £30 to Mr. Bell, and £20 to Mr. Rope, the clerks, for extra trouble and efficient service in conducting the sale, by which the charge for publishers' commission is saved to the Council.

The Committee have examined into Messrs. Spottiswoode's account referred to them by the Council. It appears that in February, 1862, Messrs. Spottiswoode laid in a stock of new type and the requisite supply of paper for the work, by direction of the Pharmacopœia Committee, on the understanding that the printing would be immediately proceeded with, but that in consequence of the delay which subsequently took place these materials lay long unemployed. Messrs. Spottiswoode estimate at £75 their loss occasioned thereby, and also from the printing being deferred to the busy season of 1863, instead of being done in the summer, as expected. They do not press this charge as a claim, but submit it for equitable consideration; and the Committee recommend that it should be paid. With regard to an extra claim for binding, submitted by Messrs. Spottiswoode, the Committee regret that, after giving it their careful consideration, they do not feel themselves justified in recommending that it should be allowed.

In conclusion, the Committee recommend that two members of the Executive Committee be annually appointed to audit the accounts of the General Council.

W SHARPEY, *Chairman.*

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	Estimated Income for the Year 1863.		Actual Income for the Year 1863.		Estimated Income for the Year 1864.	
Fees received by—	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Branch Council for England	2500 0 0	—	2729 10 0	—	2600 0 0	—
,, ,, Scotland	550 0 0	—	824 10 0	—	650 0 0	—
,, ,, Ireland	650 0 0	—	832 15 0	—	650 0 0	—
		3700 0 0		4386 15 0		3900 0 0
Dividends received by—						
Branch Council for England	616 0 0	—	609 0 0	—	610 0 0	—
,, ,, Scotland	78 0 0	—	74 1 10	—	60 0 0	—
,, ,, Ireland	69 0 0	—	69 17 0	—	69 0 0	—
		763 0 0		752 19 2		739 0 0
Sale of Registers	—	330 0 0	—	317 14 0	—	310 0 0
Penalties	—	—	—	9 13 5	—	—
		£4793 0 0		£5467 1 7		£4949 0 0

	Estimated Expenditure for the Year 1863.		Actual Expenditure for the Year 1863.		Estimated Expenditure for the Year 1864.	
Expenses of—	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
General Council	—	3068 0 0	—	(b)3338 9 11	—	3350 0 0
Branch Council for England	580 0 0	—	(c)660 11 4	—	(c)720 0 0	—
,, ,, Scotland	270 0 0	—	259 2 3	—	270 0 0	—
,, ,, Ireland	300 0 0	—	290 14 1	—	300 0 0	—
		1150 0 0		1210 7 8		1290 0 0
		4218 0 0		4549 7 7		4640 0 0
Balance in favour of Medical Council		575 0 0		917 14 0		309 0 0
		£4793 0 0		£5467 1 7		£4949 0 0

(b) This includes £160 11s. 6d. for printing 2000 copies of the Register, to be supplied to Her Majesty's Government.
(c) This increase is on account of £200 of the Registrar's Salary being now charged to the Branch Council for England.

British Pharmacopœia Statement.

	£ s. d.	£ s. d.
Paper, Printing, and Binding 13,000 copies, 8vo.	1392 0 0	
Ditto ditto 15,000 copies, 32mo.	657 2 6	
		2049 2 6
Meeting of General Council, October 28th, 1862, on account of the Pharmacopœia		406 7 0
Amounts voted by the General Council, on account of the Pharmacopœia:		
See Minutes, vol. i., p. 6	500 0 0	
,, ,, vol. i., p. 91	500 0 0	
,, ,, vol. ii., p. 129.	600 0 0	
Dr. Apjohn, vol. ii., pp. 233-4	94 10 0	
Dr. Maclagan ditto	154 7 0	
London Secretary ditto	150 0 0	
Edinburgh Secretary ditto	100 0 0	
Dublin Secretary ditto	100 0 0	
London Editor ditto	75 0 0	
Edinburgh Editor ditto	50 0 0	
Dublin Editor ditto	50 0 0	
Sub-Committees, £500 each	1500 0 0	
		3873 17 0
		6329 6 6
Deduct Balance returned by Dr. Garrod, late Secretary of the Pharmacopœia Committee		100 0 1
		£6229 6 5

	£ s. d.	£ s. d.
Produce of 12,053 copies 8vo, after allowing the usual discount to booksellers	4446 3 0	
Due from Her Majesty's Government, for 62 copies	23 0 0	
		4469 3 0
Produce of 2366 copies, 32mo, after allowing the usual discount to booksellers	491 8 0	
Due from Her Majesty's Government, for 364 copies, 334 being in sheets	62 3 0	
		553 11 0
		5022 14 0
Balance		1206 12 5
		£6229 6 5

Note.

The number of the 8vo Edition paid for	12,053
Ditto, owing for by Her Majesty's Government	62
	12,115
The number given to Members of Council, Pharmacopœia Committee, Stationers' Hall, British Museum, etc.	55
	12,170
Stock on hand	830
	13,000

The number of the 32mo Edition paid for	2,366
Ditto, owing for by Her Majesty's Government	364
	2,730
The number given to Members of Council, Pharmacopœia Committee, Stationers' Hall, British Museum, etc.	35
	2,765
Stock on hand	12,235
	15,000

	£ s. d.	£ s. d.
Cash received for copies in 8vo and 32mo sold	4,937 11 0	
,, due for ditto	85 3 0	
	5,022 14 0	

	£ s. d.	£ s. d.
Value of 12,235 copies 32mo in stock	2,500 0 0	
,, 830 ,, 8vo ,,	290 0 0	
	2,790 0 0	

4. Read—The following letters and correspondence :—

"United Society of Chemists and Druggists,
"20, New Ormond-street, W.C., London, August 24, 1863.

"Gentlemen,—I have the honour to inform you that I am instructed by the Executive Committee of the United Society of Chemists and Druggists, to state that they have appointed a deputation to wait upon your honourable body, in relation to the contemplated alterations in the present Medical Act, and to request you will signify at what time and place it may suit your convenience to receive such Deputation; and I have the further honour to be,

"Gentlemen, your obedient Servant,
"The Council of Medical Education and Registration, 32, Soho-square, W." "C. F. Buott, Secretary.

"United Society of Chemists and Druggists,
"Offices, 20, New Ormond-street, W.C., London, February 6, 1834.

"Sir,—On August 25 last I received your letter, acknowledging the receipt of one of a previous date from the Executive Committee of this Society, requesting an interview for a deputation to the General Council of Medical Education and Registration, to urge upon their attention the very injurious nature of certain clauses in the proposed Amended Medical Act affecting the interests of chemists and druggists.

"In your reply you informed me that the Council would receive this application of the Committee when they met, but added that a considerable time would elapse before they would be again convened. Not having heard from you since, I presume the Council have not yet resumed their sittings.

"In the meantime the Executive of the United Society of Chemists and Druggists have convened public meetings to receive the wishes of the chemists and druggists throughout the kingdom.

"At all these meetings the objectionable clauses were strongly condemned. At the London meeting, held at the United Society's Offices, in November last, certain resolutions were unanimously passed, which I have now the honour to forward through you to the General Council of Medical Education and Registration.

"I am, Sir, your obedient servant,
"C. F. Buott, *Secretary.*
"Francis Hawkins, Esq., M.D., etc., etc., Registrar,
"General Council of Medical Education and Registration."

Copy of Resolutions unanimously carried at a Public Meeting of Chemists and Druggists, held at the Offices of the United Society of Chemists and Druggists, 20, New Ormond-street, W.C., on Friday, November 27, 1863.
Mr. Alderman Dakin, *President*, in the chair.

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1. That the chemists and druggists now assembled recognise the desirability of giving all possible encouragement to scientific and educational qualification for the trade of a chemist and druggist, but they consider themselves, in common with their brethren, quite competent to accomplish all needful reform in their own body, and repudiate the 56th and 57th Clauses of the proposed Act of the Medical Council as being unjust in principle and an unwarrantable attempt to interfere with their rights as independent citizens.

2. That an Act of Incorporation, based upon a recognition of existing rights, and subjecting every future candidate for the trade to an educational test, as suggested by the United Society of Chemists and Druggists, is most desirable, and this meeting would urge upon the trade the necessity of a combined and determined effort for its attainment.

3. That the proceedings of this meeting be made known to the Medical Council, with the intimation that the Chemists and Druggists of this country require to be consulted upon any measure affecting their own interests, and that they will accept of no proposal which does not acknowledge the necessity of an incorporation of the entire trade, giving them the right of self-government.

4. That a copy of these resolutions, together with copies of the objectionable clauses in the proposed Medical Act, and the suggestions of the United Society of Chemists and Druggists for an incorporation of the trade, be forwarded to the Members of Parliament for the City of London and the Metropolitan Boroughs, requesting them to withhold their support from any measure affecting the interests of Chemists and Druggists which has not been submitted to the judgment of the trade.

Correct copy of resolutions certified by Mr. Alderman Dakin, Chairman of the Meeting, and President of the United Society of Chemists and Druggists.

C. F. Buott,

Secretary of the United Society of Chemists and Druggists.

20, New Ormond-street, February 6, 1864.

5. Moved by Dr. Smith, seconded by Mr. Hargrave—"That a copy of the two volumes of the Minutes of the Medical Council be presented to each of the Universities and Corporations in Schedule (A) of the Medical Act."—Agreed to.

6. Moved by Mr. Arnott, seconded by Dr. Stokes—"That a copy of the letters from the Bodies mentioned in Schedule (A) to the Medical Act, explanatory of their regulations, be presented to each of the Universities and Corporations in Schedule (A)."—Agreed to.

Confirmed—George Burrows, *President*.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,

Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF THE POTTERIES, STAFFORDSHIRE.

The traveller who would obtain the best idea of what may be strictly called the Potteries of Staffordshire should go to Newcastle-under-Lyme, and from thence a little distance out in an easterly direction, to what is called Basford Bank. A little way down this descent, or small hill, he will take in, in a bird's-eye view, nearly the whole of the district in which the manufacture of earthenware is carried on in this part of England. A century ago Basford Bank must have afforded one of the most beautiful outstretches of rural scenery that could be presented to the eye. And even now, despite the presence of smoking furnaces, bottle-shaped kilns, closely-packed houses, and almost entire annihilation of rich, flowery land, deep and dense forest, and bright river, there is beauty. Standing with the face to the east, we can here take in all, or nearly all, the pottery towns. To the right, that is to say, in the south, is the large town of Stoke-on-Trent; a little above it, and in the south-east, is Shelton, and rather more to the east and spreading out in a long line, is Hanley. Immediately in front is modern Etruria, like a straight street detached from village or township. To the north-east is Burslem, and to the north Tunstall. A little to the left of Etruria Earl Granville's iron works stand prominently forward in the picture; and on an elevation hard by the North Staffordshire Infirmary presents a commanding position. In these we have included all the pottery towns of this part, except Longton and Wolstanton; for Newcastle-under-Lyme, although it contains amongst its inhabitants many men who work in the potteries, is not, strictly speaking, a pottery town, Stoke-upon-Trent being the centre borough town of the Pottery district.

Registration Districts.

The Registrar-General divides the district into two main divisions, with subdivisions. These main divisions are Wolstanton and Stoke-upon-Trent. Under the head Wolstanton he includes the district of Wolstanton, containing in the year 1861 a population of 9563; the sub-district of Tunstall, containing a population of 22,466, and having, with Wolstanton, an area in statute acres of 10,739; and the sub-district of Burslem, having a population of 22,327, and an area of 2940 statute acres. Under the head Stoke-upon-Trent he includes the sub-district of Hanley, with a population of 16,848; of Shelton, with a population of 18,331; of Stoke-upon-Trent, with a population of 11,390; Fenton, with a population of 7882; and of Longton, with a population of 16,857. The whole of the Stoke-on-Trent district is included in an area of 10,490 statute acres.

Stoke and Shelton.

Stoke-upon-Trent, the nominal centre of the Pottery district, is one of the old towns of Staffordshire, probably having a date as ancient as that of Stafford itself. The town, almost within the present century an inconsiderable place, now stretches out into wide dimensions, with fine streets, regularly built, commodious houses, extensive manufactories, and every evidence of an active, and even over-active, life. The neighbourhood around is exceedingly picturesque. Shelton is a smaller town, very similar, and also of antiquity.

Hanley.

Hanley is a modern place, containing several collieries and potteries in its vicinity. It seems to have been of little importance at the beginning of this century, but once started it rapidly underwent increase, and in 1811 it had a population of 4481, with 911 houses. The town of Hanley now spreads over an immense tract of ground, is crowded with a manufacturing population, and withal presents a picturesque character.

Etruria.

At a distance from Hanley, scarcely looking like a town, but rather like a series of small hamlets, spread out on irregular and rising ground, is Etruria, a modern place, founded by the famous Josiah Wedgewood, in the last century. It was evidently originally built in one straight line or street, as a small village, in fact, for housing the persons employed in Mr. Wedgewood's works. The name was given to it from the Italian Etruria. In this place the great Wedgewood made those wonderful discoveries which have added so marvellously to the industrial art and the wealth of this country. Here he made the name for the Wedgewood manufacture; and the young members of our Profession who are commencing their careers in the surgeries of our provincial brethren may learn with interest, as they turn from beating up the *Pil. saponis c. opio* in their Wedgewood mortars to the pages of the *Medical Times and Gazette*, that this remarkable Englishman was the son of a potter in no very affluent circumstances; that he possessed nothing but his own industry, talent, and perseverance to carry him on; that he was simple and unassuming in manner, and childlike almost in the way in which he experimented and asked questions of nature; free from all pride and bigotry; and great because of his very simplicity. Wedgewood may be said to have made the Pottery district, for although truly it existed before him, it was comparatively in a small way and rude; he made it large—one of the most important industries in England, in fact—and, above all, artistic. It is this latter fact, the infusion of something new into the art of pottery, that has made modern Etruria so formidable a rival of the Etruria of the past; and one could have wished almost that, in the building of the little town, its founder had also again considered the beautiful as well as the useful; for, in plain truth, Etruria as a place disappoints the expectation. There is about the word a classical sound, which makes one think of an open plain, with fine buildings and half-ruined structures, with vestiges of past art peeping out everywhere; but that which, in fact, is a plain English street, or large village, unadorned, unrelieved, and unpretending. Nevertheless, the art is there, and a wonderful art indeed, hidden though it is; but it has to be sought in the rooms and warehouses of the manufactory that skirts the canal that winds by: in them, the schoolrooms of the best potters in England, and the centres from whence come those articles with which our tables may be so chastely decorated in transformed clay, there is art unsurpassed.

Burslem.

Burslem is called by Pitt,—who, I believe, in turn borrows the name,—"the mother of the Staffordshire potteries." It is a place of very ancient time, and in the reign of Henry III. was evidently of great importance. It was here that the earthenware manufacture was introduced into Staffordshire; and the historians have busied themselves very greatly to ascertain why this should have been the case. Pitt, who is very careful in his descriptions, answers the question by attributing the introduction to the abundant and almost inexhaustible supply of clay and coal upon the spot, and the inland situation of the district which contributed to render labour cheap. The favourable circumstances to the manufacture are thus summed up:—"The measures or strata by which the beds of coal are divided consist most commonly of clays of different kinds, some of which make excellent fire-bricks for building

the potters' kilns, and *saggars* (a corruption of the German *Schragers*, which signifies cases or supporters), in which the ware is burnt. Finer clays, of various colours and textures, are likewise plentiful in many places, most of them near the surface of the earth; and of these the bodies of the wares themselves were formerly manufactured. The coals being then also got near the surface were plentiful and cheap."

The town of Burslem, although thus of ancient date, is comparatively modern in appearance. Old-fashioned houses certainly are rare, and the streets assume a regularity which shows that what is now Burslem is mainly Burslem of the latter half of the last and of the present century.

Tunstall.

Tunstall is a smaller place, which has existed for many centuries; for in the reign of Kynge Harrye ye Syxh after ye conquest of England, one Phythyon of Tunstall leaves a document which shows that he "dyd purchys a garden place yt lyythe in Tunstal of Hary of Tunstall his broders."

Divisions of Occupation.

The population of these towns are mainly engaged in earthenware manufacture and mining, but not exclusively.

In the district of Wolstanton, including the towns of Tunstall and Burslem, there are 3859 males and 1493 females engaged in pottery work, or 5352 in all. In the same district there are 563 males engaged in iron mining, and 2306 males in coal mining. In the district of Stoke-on-Trent, including Hanley, Shelton, and Longton, there are 5813 males and 3338 females occupied in pottery work; and in the same district there are 2436 males engaged in coal mining.

The youths and children employed in pottery work in the Staffordshire potteries are very numerous, amounting, according to an estimate by Mr. Longe, to about 11,000, all under 18 years of age. Of those between 13 and 14, there are 6500; and of those between 8 and 13, 4500. I should observe, however, that Mr. Longe includes the small districts of Colridge and Dutchall in his calculations.

Newcastle-under-Lyme.

The town and district of Newcastle-under-Lyme includes Whitmore and Audley. The population of Whitmore in 1861 was 1302, and the area in statute acres 6680. The population of Audley was 7625, and the area in statute acres 11,171. The population of Newcastle-under-Lyme was 15,640, and the area in statute acres 8,867.

Newcastle existed in the reign of King John as the town or castle of "Chesterton-under-Lyme." The castle in process of decay, in the reign of Henry III. was rebuilt by the Earl of Lancashire, and called the New Castle; hence probably the present name. On this latter point, however, there are endless speculations. The town was incorporated by Henry III., on September 18, 1285. No remnants of the castle now remain. The town is a borough, returning two members to Parliament. The streets of the town are not very regular, but are wide and spacious; the ground is hilly in parts, and several streets are built in the lines of the descents. The houses in the worst parts of the town are low, heavy, and dark.

Newcastle suffers from the same disadvantages as Stafford in regard to cattle fairs. On days when cattle are brought in large numbers for sale they are simply turned into the public streets, and are there bought and sold, so that the whole town is, in short, a market. The streets afterwards are left in the most filthy condition; the surface drains are choked; on the sideways it is most uncomfortable for all persons, and especially for females, to walk; and, in spite of partial cleansing, the air is rendered noisome for several hours. It is astounding that in an English town in this half of the boasted nineteenth century such an intolerable, disgusting, and unnecessary nuisance should be permitted. After I had described the cattle market of Stafford in a previous number of this series of papers, I received "a cutting" from some local newspaper in which either the editor of the paper or a contributor treated the matter as an impossible fact,—as something that told amusingly, but could not be. I really am hardly surprised at the incredulity thus displayed, for it is a veritable barbarism to make a town even for a day a wide-spread manure-heap. But, strange as it may appear, it is strictly true—true in regard to Stafford, and equally true in respect to Newcastle-under-Lyme.

There are many points of historical interest about Newcastle upon which I dare not dwell at length; I am bound, however to note that it was the birthplace of two of the most remarkable men, of the men of mark, of the Commonwealth, The first of these celebrities was Major-General Thomas Harrison—a soldier who fought bravely, and who adhered to his principles with a fanaticism that knew no abatement. When, in 1653, Cromwell, having dissolved the Parliament, and for a time had held supreme power, selected 139 members of assembly, Harrison was one of five invited by the assembly to sit with them. When the assembly, on December 12, 1653, was broken up, Harrison was one of thirty members who insisted on keeping their seats; and it is of Harrison on this occasion the story is told, that when Major White, coming from the Protector with a file of musket men in his rear, entered the House he said (addressing Harrison), "What do you here?" To which Harrison replied, "We are seeking the Lord," and White returned, "Then you had better go elsewhere, for to my certain knowledge he has not been here these twelve years." A strange man this Harrison, but honest, and consistent to a fault; not a man to be remembered with affection, but yet one of whom any town may be proud. Anabaptist Harrison !(a)

The second celebrity of Newcastle, Goodwin, was for a time Chaplain to the Protector. He was a stern man, and full of hard thoughts, but he was honest, too. He enjoyed a joke, and, I believe, he rather liked sack and—for shame!—Hollands. He played a more important part in the reign of Cromwell than I dare venture to describe here. The reader will remember him as the officiating preacher when poor Jerry White, caught at the feet of Frances Cromwell, told the Protector a white lie, to wit, that he loved *not* Lady Frances, but her maid; and who therewith was married to the maid by order of his Highness, before another word of explanation could be offered or received.

(To be continued.)

SECOND THOUGHTS ON THE BRITISH PHARMACOPŒIA.

By A CHEMIST.

No. IV.

It was impossible to proceed far into an examination of the new Pharmacopœia without forming some conjectures—or a theory, if so grave a word is in place—to account for its origin and character. It appeared to us that the book was hopelessly delayed. The committees met time after time. Faction fights were frequent. The Scottish and Irish members fought with desperate tenacity for the most trivial peculiarities of their respective nations. The best men in the committees became wearied and disgusted. At last, after an enormous expense had been incurred, the Council ordered the book to be published *somehow*—no further delay was allowed. The adoption into, or rejection from, the list of Materia Medica; the ingredients, proportions, and processes of the formulæ, after having been hopelessly debated, were determined by the voice of the most tenacious members. As to researches in botany, natural history, or chemistry, nothing of the kind need be attributed to them.

This supposition seems to be fully justified by the defence of Dr. Frederick Farre, one of the ostensible editors, against the strictures of the President of the London College. "It must be borne in mind," he says, "that in order to amalgamate the Pharmacopœias of the three kingdoms it was necessary to make concessions on all sides, and that the representatives of the London College could not always have their own way." If a mere amalgamation of the old books were the task the Medical Council set themselves, we need not wonder at the result. That it makes no pretensions to represent the information of the Profession respecting remedial agents cannot be too distinctly and unequivocally proclaimed. The reading public perceive and take more interest in questions of this kind than the Profession are apt to imagine. They should be told that very few, if any, regular and qualified Practitioners confine themselves in their choice of remedial agents to the Pharmacopœia. Their handbooks are and will continue to be dispensatories and systems, the range of which is incomparably greater; while "Prescribers' Manuals" and receipt-books, etc., supply further and most useful information.

Dr. Nevins has enumerated upwards of thirty medicines in general use in the metropolis not to be found in the British Pharmacopœia. Probably, for the empire, three hundred

(a) It is commonly stated that Harrison was one of the first nominated Major-Generals of the Protector, but the statement is not true. He was just the man whom Cromwell would not have selected at once to the post.

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would be nearer the mark. So far from many of the omitted drugs being locally or rarely used, we have heard a West-end pharmaceutist assert that he sells in his establishment a larger quantity of tincture of sumbul than of any tincture in the Pharmacopœia.

What is the meaning of the revolt of the London College of Physicians from the authority of the Medical Council, as indicated by the speech of the President? If the Fellows and Licentiates of that body follow his advice, to ignore the British and adhere to the old London Pharmacopœia, what becomes of the injunction to the druggists to destroy or alter all their preparations?

Dr. Farre's apology for the errors in the chemical processes is very rich. He admits that chemicals are not made by the persons for whom the book was professedly compiled, but by manufacturers; but, says he, "the introduction of chemical processes into the Pharmacopœia, if it did no good, at all events did no harm." No harm to excite the ridicule of all persons concerned, to expose any one simple enough to attempt the processes to failure, to fill up a book with errors and fallacious statements, and then to employ the prestige of a learned and ruling body to enforce a sale of such a work! The compilers pride themselves on a new feature in the work, namely, the solutions and substances used for volumetric analysis. Allowing these to be useful to the chemist, what has it to do in a Pharmacopœia?

A misapprehension of the purposes and aims of a Pharmacopœia is manifest throughout the entire work. Surely it is not to teach chemistry. If it were, the book is not of much value for the purpose. The Council ought to have been above the vulgar affectation of appearing scientific beyond the occasion. But all, or nearly all, their science is behind the age, whilst both in the proper sphere of a Pharmacopœia, therapeutics and pharmacy, they seem to be unacquainted with recent progress. It is scarcely too much to say that nearly all the chemistry of the book is faulty. The British Pharmacopœia recognises in a very few instances comparatively new forms for preparing medicines,—the pseudo-crystalline scales of the citrates of iron, the granulated sulphate of iron, and some concentrated solutions under the title of fluid extracts. It is impossible to understand why others are omitted which are extensively in use by all grades of the Profession:—1. Granulated citrates and other salts. 2. Concentrated groups of principles representing the active portions of vegetables, separated from the bulky and inert matter, woody fibre, starch, gum, etc., with which they are associated in nature. There is great affectation of scientific refinement in some directions, whilst this, one of the most recent improvements of science as applicable to therapeutics, is ignored. The absolute isolation of the vegetable alkaloids is all very well in a chemical point of view, but the best Practitioners have always held that quinia, morphia, etc., do not fully represent the curative properties of the plants whence they are derived. No better illustration of this can be found than one of their new preparations, namely, resin of podophyllum. The formula given for making this resin aims at making it perfectly pure, but it is well known that pure resin of podophyllum is not the desired remedy derived from that plant. In the powder now in extensive use under the name of podophylin there are several cognate resins, the difference between which is clearly marked by their being soluble in different menstruums. Chemists have not yet succeeded in separating and classing these severally, inasmuch as they are not crystalline bodies. But it is the group in combination that is valuable as a remedy, not the resin which predominates in quantity. Every Practitioner who has carefully studied this medicine will bear out these remarks. We may illustrate the subject by the case of the new and beautiful dyes derived from the products of the decomposition of coal. For some time the variety of dyeing matters termed magenta dyes were supposed to be the result of the reaction of certain substances on *aniline*, but on examining more accurately the aniline of commerce it was found that it was invariably associated with another basic hydrocarbon, namely, *toluidine*. When the latter, which was deemed an impurity, was separated, and pure aniline obtained, it was found that it produced, with the same agents, no colours. The separated toluidine was equally valueless as a source of colours. But when aniline is mixed with a minute portion of toluidine, the compound or mixture yields all the desired dyes. It is just so with the resin of podophyllum, and the same is certainly the case with a great number of the new remedies which have recently come into use, and are now found in all druggists' shops. It is not irrelevant to remark that podophyllin, which was until quite recently imported from America, is now prepared in enormous quantities in this country. We hear of one maker who prepares as much as twenty pounds of it at a time. It is perhaps needless to add that his process is not that of the new Pharmacopœia.

The recognition of the concentrated preparation alluded to was the more incumbent on the compilers of the Pharmacopœia, inasmuch as no simple preparation, such as tincture, infusion, or decoction of podophyllum, could possibly be used internally. In the root itself a most offensive and acrid matter, soluble in water and spirit, is contained, unbearable by the human stomach.

We cannot in these strictures on the therapeutics of the Pharmacopœia enter further into the subject, but it is one well deserving the attention of the Profession. Allied to it, however, there is one point to which we would briefly advert—it is that of Mr. Graham's great discovery of *dialysis*. Why is all notice of this omitted from the Pharmacopœia? We have a large space devoted to volumetrical analysis—quite (in our opinion) out of place, although interesting to those engaged in chemical researches. But the application of dialysis in the preparation of efficient remedies from vegetable bodies promises results of the highest interest and importance. It would appear that, by the agency of this method, we might have all the crystalline principles of the barks for instance, or of opium grouped precisely as they are in nature, and separated from all extraneous and inert matter. On the other hand, it may be found that the colloid materials of some plants are possessed of the properties we need to effect our purposes in therapeutics. If ever the art of healing takes on a scientific form dialysis will be its most useful instrument. It is of the highest interest and importance in chemistry to isolate all the proximate principles of plants, but not for therapeutics. This holds good in some instances with inorganic bodies; for example, iodine and the iodides are the agents most used by the Profession, but is pure iodine or the iodide a perfect substitute for the burnt sponge which they have superseded? The consumption of lozenges of burnt sponge by the public in districts where goitre prevails is enormous.

In connexion with this subject, it is curious and worthy of note how deeply rooted in Medical practice certain empirical formulæ are, and have been for ages, so that in the year 1864 they are retained side by side with the latest discoveries and improvements. Modified and improved, as some think, generally simplified, we have many of them in the British Pharmacopœia. In several instances a comparison with the original forms will show that the alterations can scarcely be regarded as improvements. Some have been rejected, but, nevertheless, they continue in use and retain their popular estimation:—

Old Names.	Modern Names.
Friar's Balsam.	Tinct. benzoin co.
Paregoric elixir.	Tinct. camph. c opio.
Turlington's drops.	Tinct. lavend. co.
Huxham's tincture of bark.	Tinct. cinch co.
Elixir salutis.	Tinct. sennæ co.
Ward's paste.	Conf. pip co.
,, powders	Pulv. jalap. co.
Lenitive electuary.	Conf. senna co.
Lisbon diet drink.	Decoct. sarzee co.
Venice treacle.	Conf. opii.
Hiera picra.	Pulv. aloes c. cannella.
Elixir vitæ.	Tinct. aloes co.
Elixir of vitriol.	Acid sulph. arom.
Rufus' pill.	Pil aloe c. myrrhæ.
Plummer's pill.	Pil cal. co.
Matthew's pill.	Pil sapon c. opii.
Pil cociæ minores	Pil coloc. co.
Pil ex duobus.	Pil aloes c. scamon.
Dover's powder.	Pulv. ipecac. c. opii.
Diachylon.	Emp. plumb.

It would be useful to go back to the oldest forms of many of these, and examine them in the light of modern science, to discover how far the many changes they have undergone have been warranted. Of such as we find in the British Pharmacopœia, as compared with its immediate predecessors, few are improvements, some are manifestly the contrary, whilst many formulæ in popular use and estimation ought, if any are admitted into a Pharmacopœia, to be of the number.

We have now run over this pretentious work, and pointed out errors and imperfections enough to warrant the conclusion that it is a palpable failure. Whether the Medical Council or any other body of Medical men should take upon them-

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selves the task of preparing a Pharmacopœia worthy of the Profession, is, we think, an important question not lightly to be answered or put aside. We purpose in a future paper to venture on a sketch of such a work, and to offer a few suggestions as to the mode of its preparation and publication.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 26.

Dr. BASHAM, Vice-President, in the Chair.

A paper, by Dr. MORELL MACKENZIE, was read, entitled

A DESCRIPTION OF THE FIRST LARYNGOSCOPE, AS INVENTED AND EMPLOYED BY DR. B. G. BABINGTON, F.R.S., IN THE YEAR 1829.

The author stated that in this communication it was not intended to trace the successive steps which finally led to the more general use of the laryngoscope in practical medicine. This had already been done in an able article by Mr. Windsor, in the *British and Foreign Medico-Chirurgical Review*. The object of the present paper was to fix distinctly the epoch of the first employment of the laryngoscope in the investigation of laryngeal disease. In considering this question it was necessary to bear in mind the essential conditions under which laryngoscopy is practised. These were—1st. The visual ray from the observer's eye has to be directed to a part which, when the mouth is open, is hidden from direct view by the projecting angle formed by the base of the tongue and the epiglottis. 2nd. The part to which the visual ray is directed—that is to say, the larynx—is not penetrated by light. To overcome these obstacles to laryngoscopy there are required, then (1), a small mirror placed at the back of the throat at such an angle that the visual ray can be directed into the larynx; and (2) an apparatus for concentrating the luminous rays, and projecting them upon the small mirror, so that they can be reflected into the larynx. For this latter purpose modern laryngoscopists generally use a second mirror (the ophthalmoscopic mirror of Rüete). The essential requisites of a laryngoscope were clearly perceived by Dr. Babington as early as the year 1829. At that period his inventive genius was directed to the subject, and he contrived a laryngoscope very similar to the one now in use. It consisted of a small laryngeal mirror, and a hand-mirror for concentrating the light. The patient sat with his back to the sun, and while the illuminating mirror (a common back-hair glass) was held with the left hand, the laryngeal mirror was introduced with the right. Dr. Babington's labours did not end here. By a very simple mechanism, a tongue-depressor was united with the laryngeal mirror, and thereby one of the most serious obstacles to laryngoscopy was attempted to be overcome. This ingenious laryngoscope [instrument shown] was exhibited at the Hunterian Society on March 18, 1829; and a report of the meeting was published in the *London Medical Gazette* of March 28, 1829. It was made by an optician named Elsworthy, and the invoice [shown] was dated June 23, 1829. In this laryngoscope a spring between the shanks of the laryngeal mirror and the spatula was fixed in such a way that by pressing the two handles together the tongue was depressed. Afterwards (between the years 1830 and 1835) Dr. Babington gave up the tongue-depressor, and had two instruments made very similar to those now in use, except that instead of being of glass they were of steel. The maker's name (Laundy) is stamped on one of the mirrors. In rendering justice to a distinguished Physician, the author did not wish to detract from the credit fairly due to others who, at different times and independently of one another, had contrived an apparatus for inspecting the larynx. Dr. Czermak's great merit consisted in his having so simplified the instrument that it could be used by the many; and his talent and enthusiastic teaching had so prominently associated his name with the laryngoscope that his reputation would not suffer from a due recognition of Dr. Babington's claims. The author said it could not be denied that as early as 1827 Dr. Senn, of Geneva, tried to make use of a small mirror to examine the larynx of a child on whom he was about to perform tracheotomy. Dr. Senn was unsuccessful because he only employed one of the factors in laryngoscopy; and whilst he attributed his failure to "the small size of the mirror," it really depended on the non-illumination of the larynx. Dr. Senn's case, moreover, was not published in the *Journal de Progrès* till the year 1329, a short time after Dr. Babington's description had appeared in the *London Medical Gazette*.

Dr. GIBB said he was glad that the subject of the author's paper had been brought before such a tribunal as this Society, for the discovery of the laryngoscope would now be recorded in such a manner that the claims of the original inventor would not be overlooked. This was important not only to Dr. Babington himself, but also for the history of the instrument. He could not sufficiently express himself in terms of praise towards Dr. Babington for his own most ingenious invention, one that is already proving of immense value in the diagnosis and treatment of laryngeal affections. When Czermak visited London in 1860, the belief was then entertained from his writings and conversation that Liston was the inventor of the laryngoscope, and that idea was entertained until quite lately. When he (Dr. Gibb) brought the subject of the laryngoscope before another Society in 1862, he was informed by Mr. Streeter, of Harpur-street, that Dr. Babington had to his knowledge used the instrument for many years, but he could not refer him to any published notice of it. Last year, however, this was rectified, and the original notice of the invention, as recorded in the *Medical Gazette* for 1829, appeared in another journal, and indisputably settled the question as to Dr. Babington's claims in the matter; and in his (Dr. Gibb's) work, recently published, he had taken care to rectify what was, on his part, an unintentional act of injustice to Dr. Babington. He would observe, however, that Bozzini, of Frankfort, in 1807, conceived the idea of illuminating many of the cavities of the body; but so far as he (Dr. Gibb) could investigate the evidence, he had examined the nostrils only, and, therefore, was the first to practise rhinoscopy. Dr. Babington's great discovery occurred in 1829. He was followed by Selligue about 1833, an ingenious mechanic, mentioned by Trousseau and Belloc in their work on Consumption of the Larynx. Beaumes, of Lyons, came next in 1838, and he practised rhinoscopy as well. Liston followed in 1840, Warden in 1844, and Avery in 1846. The last-named showed him (Dr. Gibb) his instruments in 1848, with some cases of cleft palate, although no observations were published. And, lastly, Garcia's researches were printed in 1855. There could be no doubt that most of these intuitively conceived the idea of inspecting the larynx; but as the priority of the invention now stands, Dr. Babington was the discoverer of the laryngoscope, and the first to apply it either with the direct or reflected rays of the sun; Bozzini first practised rhinoscopy; and Garcia autolaryngoscopy. To revert, however, to the instruments of Dr. Babington, the simplicity of their construction and their utility were unequalled, and not surpassed by many of the instruments of more modern invention; the combination of laryngeal mirror and tongue depressor in the same instrument was most ingenious. From what had been stated in the author's paper, and from a letter he had lately received from Dr. Babington himself, it was quite clear that the merit of using reflected light was wholly Dr. Babington's, who employed a small hand-glass to receive the rays of the sun, the patient's back being turned to the light. This merit has been claimed for others, but cannot be so for the future; and although the author has stated that Dr. Senne attempted to use a laryngeal mirror in 1827 upon a child, he (Dr. Gibb) did not see that it in any way affected the credit of Dr. Babington as the discoverer of the laryngoscope; and he once more tendered to him his grateful acknowledgments for what he had done for mankind by his simple, yet remarkable and highly-important invention.

Dr. COPLAND agreed with Dr. Gibb in the encomium he had passed on Dr. Babington. He felt sure that the Society would be glad to see Dr. Mackenzie's paper in its annals, and he (Dr. Copland) was proud of having introduced Dr. Mackenzie to the Society.

Dr. BABINGTON said that perhaps he ought to have been silent, but he wished to say a few words. At the time the instruments were invented a great deal was being said about infiltration of the glottis, and it occurred to him that it was desirable to seek means of examining the glottis more narrowly. With this instrument he had seen ulceration on the epiglottis, but he confessed that he did not contemplate looking through the glottis. He felt exceedingly obliged to Dr. Mackenzie and to Dr. Gibb, although he considered that he had been praised far too highly.

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Mr. Thomas Bryant read a paper on

TWO CASES OF STONE IN THE BLADDER OF THE FEMALE TREATED BY RAPID URETHRAL DILATATION, WITH REMARKS ON THE OPERATION.

The author commenced by giving the history of two cases, of which the following are brief notes:—*Case* 1.—H. C., aged 52, admitted October 13, 1862. She had had symptoms of urinary irritation for eight months, and for three had been quite unable to retain her urine. On November 19 the stone was removed by rapid urethral dilatation, and it measured 1¼ inch by 1 inch in diameter. The operation was followed by immediate relief. On the day following the patient could hold her urine for twenty minutes, and in a week for many hours, and in three weeks she left well. *Case* 2.—Ann C., aged 35, was admitted on February 17, 1864. Urinary symptoms had existed for seven months, and were very severe; the urine was full of pus, mucus, and was intensely fetid. The least examination caused her great pain. After rest in bed for several weeks these symptoms had improved, and on March 5 the operation was performed. Chloroform was given, and the urethra rapidly dilated by Weiss's dilator. The stone was then removed, but little difficulty being experienced in its removal. The calculus measured 2 inches by 1⅓ inch in diameter, and 5¼ inches by 4½ inches in circumference, weighing 2 oz. 2 dr. The next day the patient could hold her urine for fifteen minutes, on the second for forty, on the third for two hours and a half, and on the fifth day for five hours. A small slough separated on the sixth day from the urethra, and during an examination the finger was introduced again into the bladder, which caused some little incontinence; but this gradually disappeared, and on April 5 she was able to retain her urine for five hours. She is now convalescent, having good power over her bladder for three or four hours. The author then passed on to the consideration of the dilatability of the female urethra, and quoted many interesting cases, which were tabulated, in which a calculus had been expelled by natural efforts, and in which *no* incontinence of urine was the result. He then proceeded to consider the operation of urethral dilatation as a means of removing a calculus or foreign body; and gave an analysis of twenty-eight cases, which he had tabulated, in which he proved that incontinence of urine resulted in only four out of the twenty-eight examples, and that in these four the dilatation had been *slowly* performed. He then considered in detail many of the cases, and enlarged upon the best mode of performing the operation. The subject of urethral lithotomy next obtained a notice; and it was proved that an incontinence of urine was a common result of the operation—nine subjects out of twenty being left in such a condition. Removal of a calculus by lithotrity was then touched on, and the subject of vaginal lithotomy introduced, the author indicating the exceptional cases in which either operation may be required. The following conclusions were then drawn up:—1. That the female urethra may be dilated to a considerable extent with facility, and without danger. 2. That *slow* and tedious dilatation of the urethra, by sponge tents or other means, appears to be injurious. 3. That *rapid* urethral dilatation, with the patient under the influence of chloroform, is the safest and most expeditious method of removing all average-sized calculi and foreign bodies from the female bladder; for calculi one inch in diameter in children, and even two inches in adults, have been safely extracted by this practice. 4. That the operation of incising the neck of the bladder and urethra is one of danger, and should be laid aside. 5. That lithotrity is a valuable operation in cases in which a stone cannot be safely removed by rapid urethral dilatation—that is, when the stone is very large, and when the bladder is healthy; and that it is the best practice to remove the broken fragments by the forceps as speedily as possible. 6. That vaginal lithotomy is an operation of value when the other modes of operation are inapplicable; but that, as a general practice, it is not required.

Mr. Ure said the Society must feel indebted to Mr. Bryant for his valuable paper. He (Mr. Ure) believed that there were cases in which lithotrity was advisable. He then related a case in which the sub-pubic operation of lithotomy had been performed with good results, no incontinence remaining.

Mr. Walter Coulson congratulated Mr. Bryant on his paper. For his own part, he (Mr. Coulson) much preferred the operation advocated for the removal of the stone from the female bladder to vaginal lithotomy for two reasons—first, because there was risk of a vesico-vaginal fistula following as a consequence of the latter operation; and secondly, because the operation itself was much more tedious, and involved a long confinement to bed. Still, in the hands of Mr. Baker Brown and Mr. James Lane, the results had been very satisfactory. He doubted, however, whether other Surgeons, who had not the same experience in the operation for vesico-vaginal fistula, would be equally successful. Mr. Coulson alluded to a case in which he had removed a phosphate calculus the size of a large walnut. He had used Weiss's instrument, and was surprised to find how readily the urethra could be dilated. The patient did very well, was able to sit up three days after the operation, and could hold her water for two hours. No incontinence followed. He mentioned another case, at which he had assisted, when a much larger stone had been removed by urethral dilatation, and where no incontinence resulted a fortnight after the operation. Referring to what had fallen from the last speaker, he did not think it was ever necessary to incise the urethra, as the tissues were capable of very considerable dilatation. There was one passage in Mr. Bryant's paper in which he could not concur. He stated that vaginal lithotomy might be advisable where the calculus was large. Should the size of the stone be such as to render its removal entire through the urethra after dilatation impossible, he should be disposed, first, to dilate the urethra, and then to crush the calculus, not with the lithotrite but with a forceps, as used in lithotomy, in the male when the stone is too large to come away. He considered this proceeding preferable to vaginal lithotomy, for should the stone be so large as to render impossible its removal through the urethra, it would be necessary to make an incision that would involve pretty nearly the whole length of the original wall of the bladder. This was a serious objection. Therefore, where the calculus was very large, Mr. Colson preferred rapid urethral dilatation, and crushing, when necessary, to either vaginal lithotomy or to urethral dilatation with incision of the urethra.

Dr. Wynn Williams said that a specimen had been shown him by Mr. Clements, of Shrewsbury, of a crochet needle removed by the Messrs. Weiss's dilator from the female bladder. It was sacrusted by a deposit as large as a pigeon's egg, and had been in two years. The patient did well, and had no incontinence.

Mr. Spencer Wells said that there could be no doubt of the difficulty of dealing by lithotrity with such a case as that described by Mr. Henry Thompson. A large stone and small irritable bladder clearly indicated that if dilatation were inadmissible, some form of lithotomy—vaginal, urethro-vaginal, or the lateral operation so successfully practised by Dr. Buchanan, of Glasgow—was called for. But in a case where the stone was of moderate size—say, from half an ounce to an ounce—and the bladder of moderate capacity—say, from four to six ounces—it was a serious question whether lithotrity or dilatation should be preferred. Mr. Bryant's proofs against slow dilatation were conclusive; but those in favour of rapid dilatation did not appear sufficient to induce us to reject lithotrity in cases to which it is applicable. Lithotrity is a very easy operation in women. It may be performed without uncovering them, and by injections through a large catheter the whole of the fragments may be removed at one sitting. There is no fear of any incontinence of urine. But dilatation is very uncertain. In a very important case which had come under his (Mr. Wells') care some years ago, he had asked several of the most experienced London and provincial Surgeons what their experience of dilatation was, and all had agreed that it was extremely uncertain, and that incontinence might follow a very moderate degree of dilatation. He treated this case most successfully by lithotrity. One Surgeon said that he had dilated in nine cases, and seven were "dribblers" for the rest of their lives. Mr. Bryant's facts were strongly in favour of rapid dilatation; but were not strong enough to prove its superiority to lithotrity in cases where lithotrity was applicable.

Mr. Henry Thompson regarded the paper as a valuable contribution to practical Surgery, because it was impossible for any one Surgeon to come to logical conclusions respecting the best mode of treating these cases from his own experience alone, stone in the female being, comparatively speaking, a rare affection. Mr. Bryant had contrasted the method of rapidly dilating the urethra by means of Weiss's instrument with that of slowly dilating it by sponge tents. It might be regarded, perhaps, as generally agreed that the latter method was not a desirable one. This left for consideration the treatment by lithotrity, by incisions, and by rapid dilatation, as well as that in which the two latter were combined. With regard to lithotrity, although he approved of it for stones of

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moderate size, he was quite sure that all who had attempted to remove a large stone at one sitting by this means encountered difficulties and risks of no ordinary kind. The bladder soon became empty, and the manipulation and removal of large, sharp, and angular fragments in that condition he considered a very hazardous proceeding, and one which probably involved more damage to the urethra, to say nothing of the bladder, than the removal of a good-sized stone entire. He was not quite sure whether the combination of incision with some dilatation had received all the attention it merited. For large stones he could speak in high terms of its value. This might be illustrated by briefly referring to a case which had occurred in his own practice two months ago. He had been called by Dr. Ashurst, in Kent, to see a lady, aged 77 years, who had suffered very severely from the presence of a large calculus. She was placed under chloroform. Mr. Thompson then dilated the urethra so as to admit the left finger easily; and having thus examined the stone, and found that it was too large to pass by any dilatation he thought proper to employ, he made an incision downwards in the median line, using the index finger as a director, and divided mainly the floor of the urethra and soft parts beneath, after the manner recommended by Mr. Fergusson, incising only very slightly the neck of the bladder. Having done this he extracted, slowly and carefully, a stone 2½ inches long by 1¾ inches wide, and weighing nearly 2½ ounces. He then introduced Marion Sims' vaginal speculum, and closed the incision by metallic suture, as when operating for vesico-vaginal fistula. The result was perfect. The patient, notwithstanding her age, was now perfectly well, walking about, and retaining her urine for three hours with ease. For very large calculi he should prefer again to adopt this method to that of trusting solely to the large amount of unaided dilatation which would be required.

The Author, in his reply, expressed his pleasure at having elicited the details of several interesting cases from Mr. Ure, Mr. Thompson, and Mr. Birkett. The success of Mr. Ure's case was very good, but it was open to a doubt whether the calculus might not have been removed more readily and with equal safety by rapid urethral dilatation than by the operation which had been performed. He would remind Mr. Wells that he (the author) had not disputed the possibility of removing a calculus from the female bladder by lithotrity; for in certain cases this operation was of great value; but his aim had been to show that the same end might be secured in the majority of cases by a simpler and more expeditious practice. The expression of the Surgeon which Mr. Wells had quoted was very singular; it would be of great interest to have the details of the several cases to which he had alluded. Mr. Thompson's case was one of great practical interest; the operation he had performed for the removal of the stone was probably the best. He (the author) thanked the Society for the kind way in which they had received his communication.

Mr. Birkett showed some

CALCULI REMOVED FROM A WOMAN WHO HAD PROLAPSUS UTERI.

She was a patient of Mr. Roper, of Shoreditch. She had had prolapsus of the uteri and bladder for seven years. Three months ago she expelled fourteen stones. When Mr. Birkett saw her it was easy to take hold of the bladder and rattle the stones in it. A good many were extracted by dressing forceps. Dr. Odling had analysed them, and found them to consist of seventy-five parts of phosphate of lime, twenty parts of carbonate of lime, a trace of triple phosphates, alkaline salts, and organic matter. Mr. Birkett said that having shown them to a Medical man from Boulogne, he was asked if the patient had not had prolapsus of the uterus and bladder. Mr. Birkett wished to know if any of the members present had observed such calculi in prolapsus of the uterus and bladder.

Dr. Basham said the calculi were very curious in a chemical point of view. They were composed in the same proportions of phosphate and carbonate of lime as bone.

Dr. Babington thought that phosphatic calculi were rather prostatic than vesical, and were generally found with deteriorated health.

Medical Practitioners of Paris.—According to the Medical Almanack for 1864 published by the *Union Médicale*, there are 1600 Doctors of Medicine practising in the Department of the Seine; and if to these be added 270 *officiers de santé*, we have 1870 Medical Practitioners, or (taking the population of the Department at 1,500,000) 1 Practitioner for 875 inhabitants.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following Gentlemen having undergone the necessary Examinations for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 28th ult., viz.:—

Messrs. Frederick William Richards, Winchester; William Frederick Knapp, Headington; George Huntsman Shaw, Attercliffe, near Sheffield; William Soltan Eccles, Plymouth; Frederic Charles Bailey, L.S.A., Woolwich; Thomas Francis Raven, Cambridge, and Henry Maturin, Lymington, Hants, Students of St. Bartholomew's Hospital. Arthur Bayley Adams, Lymington, Hants; Edmund Woods Hawkins, Commercial-road; Charles Meymott Tidy, Cambridge-heath: John Dawson, Great Yarmouth, and George Welland Mackenzie, Tiverton, Devon, of the London Hospital. Thomas Henry Knott, Bath, and Henry Octavius Steele, Harsley, Yorkshire, of Guy's Hospital. Walter Hardin, Woolwich, and Henry Rayner, Hythe, Kent, of St. Thomas's Hospital. Edward Norton, Birmingham, and Charles Humphrey Weld, Tenterden, Kent, of the Middlesex Hospital. William Akerman, St. Just, of University College. Ernest Arthur Hudson, Queen Anne-street, of St. Mary's Hospital. James Taylor Smith, Newcastle, and Joseph Birt, Leamington.

Admitted Members on the 29th ult.:—

Messrs. William Nicholas Heygate, Hanslapes, Bucks; Francis Snaith, Boston, Lincolnshire: Daniel Iles, L.S.A., Fairford, Glostershire; Frederick Chabet, Camberwell-road; William Warwick Wagstaffe, Lambeth, and George Frederick Sankey, Maidstone, Students of St. Thomas's Hospital. Charles Bradley, Nottingham; Joseph Needham Scrope Shrapnel, L.S.A., Isle of Wight; James Whitworth, Port Talbot, Glamorganshire, and Herbert Davies, Llanybyther, Carmarthen, of University College. Frederick John Cropp, Clapham; Vincent Frederick Eck, Cleveland-square, and Henry Hope, Richmond, of St. Bartholomew's Hospital. Edward Dyer, Canonbury, and David Martin Williams, Calcutta, of the Charing-cross Hospital. Ralph Burnham, Preston, Yorkshire, of the Westminster Hospital; Robert Wrentmore Thomas, Bristol, St. George's Hospital. Algernon William Winn, Scarborough, King's College; Robert Winter, Hampstead, St. Mary's Hospital. Samuel Duckering, L.S.A., Grantham, and William Robert Coward, South Shields.

The following Gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 21st ult., and when eligible will be admitted to the Pass Examination:—

H. D. Reynolds, F. M. Rickard, T. G. Simpson, Alfred Harwood, and E. A. Trimnell, of Guy's Hospital; T. H. Willan, R. D. Broughton, and W. L. Shepard, of St. Bartholomew's Hospital; J. H. Wathen, Joseph Thompson, and Marcus Beck, of University College; O. T. Williams, H. P. Gordon, and E. Mc. C. McCready, of Dublin; E. M. Little and Osman Vincent, King's College; H. T. Nettleton and Richard Bugden, Westminster Hospital; G. W. Wigin, Leeds; C. T. Aveling, St. Thomas's Hospital; J. A. Richardson, Hull; Arthur Richardson, Charing-cross; Edward Bousfield, Birmingham; John Soane, London Hospital; Laurence Corban, Cork; and H. T. Ryder, Middlesex Hospital.

The following gentlemen passed their Primary Examinations on the 3rd inst., viz.:—

Messrs. J. P. Hughes, Josiah Leale, T. M. Joseph, A. M. Roberts, George Crowe, Frederick Barton, J. D'A. Harvey, and F. T. Coates, Students of University College. J. T. Ransford, H. A. R. Thomson, J. W. G. Farwell, G. C. Sanders, W. B. Holderness, William Keen, and C. L. Ridout, of St. George's Hospital. P. L. Karkeek, Joseph Fail, Thomas Cole, Thomas Cuddeford, J. C. Galton, and H. D. Dodd, of St. Bartholomew's Hospital. William Nuttall, G. S. Madeley, Joseph McWilliams, W. H. Carruthers, and Robert Lephton, of Manchester; Robert Hullah, St. Thomas's Hospital; S. H. Woodgates, Westminster Hospital; S. T. Taylor, St. Mary's Hospital; T. H. Burdett, Birmingham; Joseph Westmoreland, Leeds; Frederick Turner, Sheffield, and J. M. Moore, Edinburgh.

The following passed their Primary Examinations on the 4th inst., viz.:—

Messrs. G. J. Muriel, A. B. Fry, J. H. Croft, George Birch, A. E. Fluder, and Francis Lett, Students of Guy's Hospital; T. S. Gell, Robert Aldren, J. M. Gordon, G. F. Fulcher, and D. W. Robertson, of Edinburgh; W. B. Rule, G. H. Dodsworth, and A. J. Leggatt, of St. George's Hospital; H. B. Forward and Horatio Wood, of Birmingham; Joseph Kirk and T. H. Brocklehurst, of Manchester; C. E. Proctor and G. H. P. Evans, of St. Bartholomew's Hospital; C. F. Lethbridge, University College; J. K. Hyland, Dublin; Robert Barker, Newcastle; W. O. Withers, King's College; and A. A. McClure, New York.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, April 28, 1864:—

Thomas Edward Blick, Islip, near Oxford; William Henry Sutcliffe, Manchester.

The following gentleman, also on the same day, passed his First Examination:—

David Howell Thomas, St. Bartholomew's Hospital.

The following gentlemen passed their Preliminary Examination in Arts, and received Certificates of Proficiency in General Education, on April 29 and 30, 1864:—

Dacre Fox and James Tudor Phillips, certificates of special proficiency. A. J. Baker, Whiteheads-grove, S.W.; Thomas Budd, Brockham, Surrey; Alfred Cuff, Camden-road Villas; H. W. Folwell, 55, Gloucester-street; Dacre Fox, Stowmarket, Suffolk; Thomas W. Gower, Rochford, Kent; John George Hurford, 17, Nelson-square: Albert Ilis, Fairford, Glo'ster; William A. Kibler, Hackney; Edward Rodolph Luard, Rathbone-place;

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Albert M'Cann, Parliament-street; Richard Alfred Morrish, Ledbury; H. R. Moullin, Guernsey; Robert A. Painter, Shoreditch; Michael Perry, St. Bartholomew's Hospital; James Tudor Phillipe, Newcastle, Emlyn; Robert Sheffield, Swallows-gardens; Charles B. Sweeting, Nassau, Bahamas; Thomas Charles Thornicraft, Faversham; Frank Sextus Tuck, Seaford; Richard L. Wilson, Uppingham; Thomas Wilson, Manchester; John Skilbeck Wood, Wakefield; Edward Young, Hawkhurst.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ADAMS, M. A., M.R.C.S. Eng., has been elected Honorary Surgeon to the Kent County Ophthalmic Hospital, Maidstone.

ATKINSON, HARRY LEIGH, M.D., Melbourne (formerly Resident Surgeon), has been elected Honorary Surgeon to the Bendigo Hospital, Sandhurst, Victoria, Australia.

HAINES, RICHARD WHEELER, M.R.C.S. Eng., has been elected House-Physician to King's College Hospital.

HEAD, HENRY H., M.D. Edin., has been elected Physician to the Adelaide Hospital, Dublin.

KEMPTHORNE, HENRY LAW, L.R.C.P. Lond., has been elected Resident Accoucheur to King's College Hospital.

PHELAN, WILLIAM B., L.R.C.P. Edin., has been appointed Medical Officer to the Kilmoganny Police and Military.

RICHMOND, SYLVESTER, M.R.C.S. Eng., has been elected House-Surgeon to King's College Hospital.

TAGGART, JOHN, M.D. Edin., has been elected Medical Officer to the Antrim Union Workhouse, Antrim.

DEATHS.

BOLLAND, JOHN, L.R.C.P. Edin., at Gardiner's-place, Dublin, of Daventry, Northamptonshire, on April 25, aged 26.

COOKE, CHARLES TURNER, M.R.C.S. Eng., at 26, Cambray, Cheltenham, on May 1, aged 70.

COOPER, HENRY RALPH, M.R.C.S. Eng., at Ixworth, Suffolk, on May 2, aged 49.

CURTIS, JOHN WRIGHT, M.D. Edin., at Alton, Hants, on April 27, aged 50.

KELLY, JAMES, M.D. Edin., at 4, Pembroke-street, Liverpool, on April 1, aged 70.

KELLY, JOHN, M.D., at Notting-hill, on April 30.

PARETT, JAMES, M.R.C.S. Eng., at Bartholomew-terrace, Dover, on March 13.

LAVAL UNIVERSITY, QUEBEC.—The honorary degree of Doctor of Laws has been conferred upon Dr. Gibb, of Portman-street, by the Council of this University.

ST. ANDREW'S UNIVERSITY GRADUATES' DINNER.—The St. Andrew's University Graduates' dinner was held at the London Tavern on Tuesday, and was a marked success. Nearly one hundred graduates were present, and amongst the guests were Lord Campbell, Dr. Brady, M.P., Alderman Sydney, M.P., Dr. Allen Thomson, Mr. Robert Chambers, Mr. Mandy, Colonel Ogilvie, Mr. Glaisher, F.R.S., Mr. Erasmus Wilson, F.R.S., Professor Gamgee, Mr. Knight, Mr. G. Clarkson Stanfield, Mr. Winwood Reade, Dr. Gardiner Hill, Mr. Clarke, etc. Dr. Richardson occupied the chair. There were also present many eminent provincial graduates, amongst whom we noticed Dr. Day, of Stafford; Dr. West, of Alford; Dr. Ogden Fletcher and Dr. J. Shepherd Fletcher, of Manchester; Dr. Skinner, of Liverpool; and Dr. Davies, of Stafford. The chairman, in proposing the toast of the evening, "Success to the University of St. Andrew's," described in rapid review the lives of the eminent men who had adorned the University—viz., Cardinal Beatson, Arthur Melville, John Knox, Thomas Chalmers, Lord Chancellor Campbell, J. Napier, inventor of the system of logarithms, Adam Fergusson, Lord Elgin, introducer of the Elgin marbles, Lord Erskine, and, amongst Medical men, Arbuthnott and the immortal Jenner, to whom the chairman paid an earnest tribute. The toast was received with great enthusiasm. After the toast, a presentation was made to Dr. Day, of St. Mary Church, Torquay, the late eminent Chandos Professor in the University. The testimonial, which was extremely handsome, bore a suitable inscription, intimating that it was presented to him by 158 graduates, in token of their admiration of his labours in literature, science, and Medicine, and in special recognition of the services he had rendered to the University during his fourteen years of office. The Chairman expressed his deep regret that Dr. Day, owing to the impaired condition of his health, was unable to attend, and expressed a hope that the offering now made to him would be a constant source of happiness and usefulness. He would find in the richly-carved cabinet before the meeting the illustrated edition of the "Règne Animal" of the illustrious Cuvier—a work which would bring the whole of the animal kingdom within his reach, and would grow more valuable with age. He concluded by proposing health and long life to Dr. Day—a sentiment that was most heartily received. Dr. Day, of Stafford, in a speech marked by much good feeling, taste, and eloquence, received the testimonial on behalf of Professor Day. In addition to the above-named toasts, the usual loyal toasts were proposed, as well as "The Army, Navy, and Volunteers," responded to by Colonel Ogilvie; "The Houses of Lords and Commons," responded to respectively by Lord Campbell and Dr. Brady, M.P.; the "Chairman" by Dr. Day, "The Medical Council of Education" by Dr. Dobell, responded to by Dr. Allen Thomson; "Success to Literature," responded to by Mr. Robert Chambers; "The Fine Arts," proposed by Mr. Chambers, and responded to by Mr. G. Clarkson Stanfield; "Science and the Learned Societies," proposed by Dr. Semple, and responded to by Mr. Glaisher; "The Bar," proposed by Dr. Edwards, and responded to by Mr. Knight; "The Vice-Chairman and Committee," proposed by Mr. Erasmus Wilson, and responded to by Dr. Paul; and "The Ladies," proposed by Dr. Sedgewick, and responded to by Mr. Winwood Reade. Taking it altogether, the first dinner of the University of St. Andrew's will not soon be forgotten. The music, under the direction of Mr. Land, was admirably sustained by Mr. Kennedy, the Scottish vocalist, and Miss Eyles, and all the arrangements were in excellent and classical taste.

FOOD FOR DIABETES.—Mr. Blatchley has sent us some biscuits of almond, and of almond and bran, as food for the diabetic in place of wheaten bread. They were introduced by Dr. Pavy, and composed chiefly of sweet almonds and eggs, with a small portion of very fine washed bran. The small quantity of sugar in the almond is removed by water. They look nice, smell nice, and taste nice, and if there are any amongst our readers who do not object to a fattening food, they will find them a good accompaniment to a bottle of dry sherry.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Medicus.—We believe them to be legally qualified.

B. Anxious.—Apply for information to the Secretary of the Pharmaceutical Society.

E. B.—We know nothing of the statement said to have been drawn up by Dr. Stenhouse, nor by whom it was signed.

Q., Greenwich.—One friend selected by each disputant, with a third as umpire, would be a far better court than twenty or thirty summoned to a quasi-public meeting.

The Seaside Convalescent Institution.—When Dr. Finkel next makes up his catalogue of Poet Physicians, he must include the name of Dr. Henry G. Wright, whose song, "The Breeze that Blows over the Sea," set to music by Frank Mori, was received with great applause at a concert given on behalf of the Seaside Convalescent Institution.

Mr. Tyler, the Professor of Gymnastics, has lately given a course gratuitously to the boys of the Curzon Schools, Mayfair, and now, we believe, intends to form a class for children of the higher orders at the same place. The system seems easy to learn and agreeable to practise; it involves no heavy weights nor straining efforts, and we believe deserves the encomiums passed on it by the Association of Medical Officers of Health.

Sir William R. Wilde's lecture on Ireland, Past and Present, is one of the ablest and most eloquent productions of its distinguished author. The sketch it gives of the early ethnology of Europe in general, and of the early population of Ireland in particular, and of the circumstances which affect the food of the people, and of their prospects, is truly admirable. There is all the enthusiasm of the Irishman and the antiquarian, mingled with the utmost good sense, prudence, and political foresight. We hope to see it published in a separate form.

A Correspondent directs our attention to the *St. James's Medly*, a monthly shilling magazine of the superior class. It may interest our readers to learn that it contains a capital paper on the geological formation, the scenery, and natural history of the Sussex coast, under the title of "A South Coast Ramble," signed with the initials of a well-known and accomplished Practitioner at Brighton—W. E. C. N.; also a very good scientific summary, and one of a series of papers purporting to be the Professional Reminiscences of Dr. Peregrine, although it is doubtful if a well-known and popular member of our Profession be the author. In this paper he gives us a chapter on Knots; all the puzzles, and complications, and problems of life are compared to knots. "To disentangle hard knots there must be three requisites—good eyes, good sense, and good temper. For the nature of the minutest knot that ever was made in this life is to have two sides to it, and if you can get hold of these you can pull them apart. But to get hold of them you must *see* them." "Next,

there must be good sense to determine how to undo it; and lastly, there must be good temper to undo it gently." So says a pattern monthly nurse.

Biniodide of Mercury.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In Dr. Sadler's communication last week upon the external use of biniodide of mercury, he states that "he has not seen any reference to its power in reducing glandular and other tumours in the human subject." I take the liberty of directing his attention to an article published in the *British and Foreign Medical Review*, by Dr. Forbes, in the April number of 1845, p. 518. It is too long to be transcribed here, and too good to be curtailed, but if he will refer to the original it will repay him for his research.

I would not thus have taken the liberty, but seeing that Dr. Sadler is interested, and with good reason, in the subject, and as the gratification both of receiving and imparting information upon professional subjects is reciprocal, I feel sure that he will impute to me none other than the right motive. I am, &c.

Gringley, April 29. H. RAYNES.

Biniodide of Mercury in Bronchocele.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In a recent number of the *Medical Times and Gazette* Dr. Sadler, writing of the value of the external use of the biniodide of mercury in glandular swellings, recommends sixty, or at the least thirty, grains of the salt to the ounce of simple ointment.

I have found the biniodide of great value in the treatment of bronchocele, but I trouble you with this note not so much to say so as to warn those who have not tried it against using so large a proportion of mineral. It will be found that, if genuine, ten grains of the biniodide to the ounce is as much as the skin of female necks will bear.

I am, &c. HENRY CASTLE, M.D.

Newport, I.W., May 2.

The Army Medical Department.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I hope for the honour of the Medical Profession that the advertisement of the Director-General in *Lancet*, April 30, will receive but few replies. That advertisement is a great injustice to the present Army Medical officers, as, in the first place, they will of course be sent abroad, whether their turn of foreign service has come or not. In the second place, the admission of men without examination to enjoy the same rank and pay is a downright insult, and will tend to degrade the commissioned Medical officers in the eyes of their combatant brethren. So the result will be that numbers of the present Assistant-Surgeons will resign, rather than go abroad or be put on the same footing with those youths of 40 holding no commissions, who are neither civilians nor soldiers. They will be permitted to wear the uniform, which will cost them a trifle, and buy furniture for their quarters, and perhaps after a few months will receive notice to quit, and again be thrown on the world with their forty years' experience. I am, &c. F.R.C.S.

Mortality of Scarlet Fever.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your review of Mr. Chavasse's work, appearing in your Number for April 16, occurs the astounding statement, being a quotation from the above-named gentleman's work, "that he had not lost more than one case of scarlet fever during the last fourteen years."

This, indeed, could we accept the statement as being the whole truth, is an amount of success very much to be envied. I have not by any means an extensive practice, yet, on looking over my books for half the period Mr. Chavasse speaks of, I find I have given certificates of death for fifteen cases of scarlet fever. I have tried the ammonia treatment, and the acid treatment, cold affusion, and, I suppose, nearly every other treatment that has been suggested in this disease, and all I have seen of it tends but the more to convince me that, in spite of every means that may be adopted, a large proportion of the bad cases will die. And I think I am not wrong in saying that this will accord with the experience of your readers in every part of the kingdom.

I hope Mr. Chavasse will favour the Profession with the number of cases he has seen of this disease, or even with an approximation to it, and say whether, in recording his unparalleled success, he omits scarlatinal dropsy and the other sequelæ which are found so frequently fatal in the hands of the best Practitioners. I am, &c.

Newcastle-on-Tyne. R. E.

A New Method of Treating Fracture of the Clavicle.

By THOS. DOWNIE, M.D., etc.

When the clavicle is fractured, the fracture generally takes place at the centre of the bone, especially when caused by indirect violence, such as a fall on the shoulder or arm, or pressure from opposing forces coming in contact with the shoulders. In 1852, I had under my care an example of fracture of the clavicle from the latter cause in a boy, 12 years of age, who had both clavicles fractured by a cart, his shoulders being squeezed between the wheel and a wall. The clavicle may also be fractured by direct violence, such as a kick from a horse, or even a blow from a man. When fracture is the result of direct violence, the fracture may, of course, take place at any part of the bone.

In March, 1861, I had a young man under my care for a fractured clavicle got in a brawl, another man having dealt my patient a severe blow on the left clavicle; the blow knocked my patient down, and, as he is of opinion, fractured the clavicle at the same time. Be this as it may, the fracture being situated near to the acromial extremity of the bone proved extremely troublesome, on account of my not being able to get the fractured ends of the bone to remain in contact by any of the ordinary appliances. Do what I liked, the acromial portion of the fractured bone would continually tilt away from the sternal portion, till I hit upon the following plan:—I put a large strengthening plaster on the chest and another on the back, directly opposite each other, placing them lengthwise from the clavicle downwards. Above these I placed a bandage ten inches in breadth, and made it as tight as the patient could bear. A piece of strong bandage cloth three inches in breadth was then stitched to the upper ends of the plasters and bandage, and was left so loose that a pad could easily be got under it. A pad was then placed in the axilla, and the shoulders strapped back by a figure of eight bandage in the usual way; the fractured ends of the bone were then accurately brought together; a firm pad placed over them, and kept in its place by the left hand. A small wooden peg three inches in length was then slipped under the cross bandage, right above the centre of the pad, and twisted till the bandage exerted such an amount of pressure on the pad as kept the fractured ends of the bone *in situ*. The pad used was a piece of wood three inches in length by one in thickness; the ends of the upper surface were bevelled off to within an inch of the centre, the centre of the under surface was hollowed out; the piece of wood was then enveloped in calico, and the under surface padded with cotton wool. Every second day the wooden peg got a twist or two, in order to keep the pad firm. By these means the fractured ends of the bone were kept accurately together, and although eight days had elapsed before they were brought into operation, an excellent cure was effected.

I would suggest that this form might be tried in cases of dislocation of the acromial extremity of the bone; it is possible that it might take the opprobrium off our heads of not being able to do anything for this dislocation.

Blantyre, April 26.

COMMUNICATIONS have been received from—

UNIVERSITY COLLEGE, LONDON; Dr. EDWARD DEWES; Mr. FURNEAUX JORDAN; Dr. HENRY CASTLE; MEDICUS; R. E.; F.R.C.S.; ETHNOLOGICAL SOCIETY OF LONDON; ROYAL INSTITUTION; THE COUNCIL OF MEDICAL EDUCATION; OBSTETRICAL SOCIETY OF LONDON; Dr. GIBB; APOTHECARIES' HALL; Dr. THOMAS DOWNIE; B. ANXIOUS; NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE; Dr. JOHN HARVEY; Mr. H. RAYNES; HARVEIAN SOCIETY; Dr. CHARLES DRYSDALE; Dr. JOHN H. WEBSTER; Mr. G. RICHMOND.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 30, 1864.

BIRTHS.

Births of Boys, 1006; Girls, 940; Total, 1946.
Average of 10 corresponding weeks, 1854-63, 1791·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	679	628	1307
Average of the ten years 1854-63	610·8	590·5	1201·3
Average corrected to increased population..	..	..	1321
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	..	1	11	3	6	14	1
North ..	618,210	..	7	8	5	7	20	4
Central ..	378,058	..	8	5	..	3	2	2
East ..	571,158	..	8	7	2	10	14	2
South ..	773,175	..	13	14	5	15	17	11
Total ..	2,803,989	..	37	45	15	41	67	20

APPOINTMENTS FOR THE WEEK.

May 7. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Frankland, "On the Metallic Elements."

9. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

ROYAL INSTITUTION, 2 p.m. General Monthly Meeting.

UNIVERSITY COLLEGE, LONDON, 3 p.m. Distribution of Prizes.

10. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. John Crawfurd, Esq., F.R.S., "On the Supposed Stone, Bronze, and Iron Ages of Society." Dr. Donovan, "On Empirical and Scientific Physiognomy as Applied to Study of Races of Man and Individuals."

ROYAL INSTITUTION, 3 p.m. Professor Marshall, "On Animal Life."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Dr. G. B. Brodie, "Statistics of Queen Charlotte's Lying-in Hospital." Mr. Berkeley Hill, "On the Occurrence of an Additional Muscle to the Subclavius."

11. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m., Middlesex, 1 p.m.; London, 2 p.m.

12. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m., Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

ROYAL INSTITUTION, 3 p.m. John Hullah, Esq., "On Music (1600-1750)."

13. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 8 p.m. J. Scott Russell, Esq., "On the Mechanical Use of Gun-cotton."

EXPECTED OPERATIONS.

King's College Hospital.—The following Operations will be performed on Saturday (to-day) at two o'clock:—

By Mr. Fergusson—For Amputation of Leg; for Amputation of Foot (Pirigoff); for Secondary Amputation of Leg Below Knee; Lithotrity; for Removal of Warts from Labia.

By Mr. Henry Smith—For Ligature of External Iliac Artery; Lithotrity.

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ORIGINAL LECTURES.

LECTURES
ON THE CONSERVATION OF ENERGY.

By Professor HELMHOLTZ.

DELIVERED AT
The Royal Institution
ON APRIL 21, 1864.

LECTURE VI.

LADIES AND GENTLEMEN,—In my last lecture I began to speak on the chemical processes going on in the interior of the living bodies of men and animals. It is one of the greatest advantages in the application of the law of the conservation of force, that we have not to inquire into the intermediate states between the commencement of a process and its final result. The quantity of energy given out during any natural process, for instance, during a chemical process, such as goes on in the bodies of animals, is quite independent of the intermediate states; and we have only to look to the final results, and compare them with the state at the beginning to determine the quantity of energy. During my last lecture I explained what substances are introduced into the body; and we have seen that these substances are taken from the vegetable kingdom and introduced into the animal body nearly in the same state as they are contained in animals themselves, so that no great alteration of the food which is taken in is necessary. Some of the substances of food undergo a process of fermentation, by which they become soluble, but their nature is not much altered. Then we have seen that the oxygen of the air and various combustible substances are taken into the body, and received into the blood, which carries them through the whole organisation by the fine capillary vessels which penetrate to all parts of the body, so that every organ of our body, as far as blood-vessels penetrate, receives its share of combustible food and of oxygen. In the same way, by means of the blood, those substances which are the result of the decomposition going on in the organs of the body are removed. They are in the first instance absorbed by the blood, and by the blood carried to those places where substances can be excreted or removed from the body. Leaving out small quantities of other matters excreted in other ways which are unimportant—their quantity being so small, and excluding those substances which pass through the organism without being received into the blood, the principal places of excretion are the lungs, the skin, and the kidneys.

The lungs remove gaseous substances from the body, and their principal product is carbonic acid, which by respiration is removed from the body. Carbonic acid is already contained in the blood, principally in the venous blood. The arterial blood contains more oxygen than carbonic acid; the venous blood contains more carbonic acid than oxygen. The blood passing through the lungs does not lose its whole quantity of carbonic acid, but always retains a small quantity; and instead of that part which is given off, it receives oxygen from the air. In the last lecture we saw that blood taken out of the body, and shaken with oxygen or carbonic acid, takes in these gases, and gives off those gases which it contained before. By far the greater part, more than nine-tenths, of all the carbon which is used in our organisation is carried out by the lungs. It can be shown very easily that a great quantity of carbonic acid is carried out through the lungs. If I blow the air which I expire into this solution of hydrate of baryta, which, as you see, is quite a clear fluid, you will see how swiftly this solution becomes opaque by the deposit of carbonate of baryta. [Experiment.] By far the greater part of the carbon, therefore, is exhaled by the lungs, although we do not see anything of this exhalation; indeed, the greatest loss of solid substance which our body produces continually goes on through the lungs in the form of invisible gases. The quantity of carbon exhaled by the lungs in the course of twenty-four hours is half a pound, if the man is in a state of complete repose. If great bodily exercise takes place, this quantity can be increased to more than a pound or a pound and a quarter during the twenty-four hours. We lose a small quantity of carbonic acid by the skin, also water, and some solid substances. The nitrogen which is taken in into the body is removed by the kidneys in the form of urea. The chemical composition of this substance is 2C,2N,4H, and 2O. It contains a very great quantity of nitrogen—the same equivalent as of carbon. It is the substance of our body which is the richest in nitrogen. The presence of urea in the blood can be proved, although its quantity is very small; and we may infer from this that it is produced in the organs of our body, absorbed by the blood, and carried out afterwards by the kidneys. The minimum quantity of nitrogen necessary to sustain life is one-twentieth the quantity of carbon. 240 grammes is the minimum of carbon which must be exhaled by the lungs, and 10·6 grammes the minimum of nitrogen which must be given out from the body in twenty-four hours if life is to be sustained in a healthy state. You see, therefore, that the quantity of carbon exhaled is more than twenty times that of the nitrogen. Therefore, you see that our body takes in combustible substances and oxygen. When we look only to those substances which are carried out in great quantities, it loses carbon in the form of carbonic acid, hydrogen in the form of water, and nitrogen in the form of urea. Urea is a substance very soluble in water, as I said before, and the watery solution of it is very soon decomposed into carbonate of ammonia; so that those watery excretions of our body which contain urea are decomposed afterwards, and the urea converted into carbonate of ammonia. Now you see that from the life of animals those combinations are produced which plants want to receive as food. Plants live on carbonic acid, water, and ammonia. In place of ammonia nitric acid may be substituted, or combinations of nitric acid, which are easily produced from ammonia. So you see that while animals take in these combustible substances of complicated composition which are produced by plants, they, on the contrary, give out those simpler combinations which are the food of plants; therefore, the final result of the chemical processes going on in the animal body is that, instead of free oxygen and combustible substances which are taken in, carbonic acid, water, and ammonia are given out.

Now we must ask what quantities of energy are produced by the body. We have to look, in this case, only to those quantities of energy which are given out by the body, not to those which are used in the interior of the body without having any effect in the external world; because, if motions are going on in the interior of the body, like the motion of blood, and if these motions are destroyed also in the interior of the body so that they cannot have any external effect, then the destruction of their mechanical power must necessarily produce heat, and the quantity of energy which they produce can come to the external world only in the form of heat; therefore we have only to look to those quantities of energy which the living bodies of men and animals give out into the external world. Now we have first heat as the effect of animal life; at least, the bodies of men, of mammalia, and birds are always of a higher temperature, as everybody knows, than the surrounding parts of nature. It can be shown that this is the case also with cold-blooded animals; though their temperature is very low, it is not much different from the temperature which a body wetted in the same way as the surface of these animals would have, under the same temperature of the surrounding air or water.

All living animals give out continually greater or smaller quantities of heat; besides, they produce mechanical effects. Let me speak at first of the mechanical effects which they produce, and afterwards of the heat. All the mechanical effects which the higher classes of animals produce, are caused by the contraction of muscles. Muscles are those parts which we call flesh in common life. The muscles are elastic ligaments of a red colour. You all know that flesh is composed of fibres; these fibres are muscular fibres fixed with their ends to the bones with the aid of tendons, and the whole muscle can be considered as an elastic ligament. Indeed, the degree of elasticity is very similar to the elasticity which an India-rubber ligament would have under the same circumstances. But the elasticity of the living muscles has one important peculiarity, namely, its intensity can be augmented or diminished. Now we have seen already that there are several such cases in which the elasticity of an elastic body can be augmented or diminished; and we have seen that the law of conservation of force can be consistent with these cases only when the diminution of elasticity is produced by some other natural process, by which a quantity of energy is destroyed or applied to the elastic body. I have spoken, in the first lecture, of the elasticity of air and of steam, and we have seen that the addition of heat to air or steam increases the elastic force, and that, in such a way, we can vary the intensity of the elastic force, and by this varia-

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tion of the elastic force we produce a great amount of work; indeed, the steam-engine works by the force of such elasticity. Now you can observe the change of the intensity of the elastic force of our muscles very easily. If you put your hand on the muscles of your arm, as long as the arm is in repose they are quite soft and yielding; but if you make an exertion with the arm, raising a weight perhaps, you will feel that the muscles which raise the arm become tense and hard. We must ask if this change of elasticity of the muscles is connected with any other natural processes going on in the muscles, processes of such a kind that energy can be given to the muscles. We know that such processes exist. We can prove that a constant development of electricity takes place in the muscles, and that electricity undergoes a peculiar alteration when the elasticity of the muscles is altered. Then we can show that chemical processes are going on in the muscles while they are contracted, and that heat, at last, is developed. I will show you first the electrical effects of the muscles, which subject has been principally investigated by Professor Du Bois Reymond, of Berlin, who has lectured in the Royal Institution. I will show you some of his principal experiments, because they have not been often made in England, and probably the greater number of you have not seen them. I have here two platinum plates, dipped into two vessels filled with salt water. I can connect the platinum ends with a multiplicator. The plates are separated, and between them are two wetted pieces of paper, on which is a little cotton pad also wetted with the salt water. The whole circuit is sufficiently free from motive forces, so that if a muscle laid upon these plates produces a current, we shall be sure that the electro-motive forces which produce the current are resident in the interior of the muscle. I have some pieces of muscles taken from a frog which I have killed before the beginning of the lecture. I take a piece of the muscle of the leg, lay it across the cotton, and you see the needle of the multiplicator is moving. [Experiment.] The muscle is cut with the fibres separated in a transverse direction, and if I turn the muscle in the opposite direction you see the needle moves in the contrary direction. (Experiment.) You see, therefore, that we have here an electrical effect produced by a piece of muscle which has been separated from the animal more than half an hour. This electrical effect, the so-called muscular current, is produced by living muscles, and by muscles of dead animals as long as they retain their irritability,—as long as they can contract. Now, I take another muscle with a tendon connected with it, and I will put it upon these pieces of cotton. This muscle has no transverse section, but ends where the tendon is attached, and so the current is not quite so strong as it was before. [Experiment.] The frogs are very small, and the muscles do not produce the same effect as they would do if they were larger. To show you the irritating effects of electricity, and to show that the elasticity of the muscle is altered in this way, I will connect another muscle with this lever, and you will see that if I connect the muscle with the induction apparatus, and set it to work, the muscle will contract and raise the lever. [Experiment.] Every electrical discharge brings forth a contraction of the muscle; and if I bring the apparatus into continuous effect, the muscle remains contracted. I will put another piece of nerve upon two pieces of platinum connected with the induction coil, and the muscle upon the electrodes of the galvanometer. As soon as I irritate the nerve by the currents of the induction coil, the muscle contracts, and you have a new electrical current which deflects the needle. [Experiment.] You saw the muscular current at first deflected the needle, and then it returned to its position of equilibrium under the influence of the galvanic polarisation of the platinum plates; and when I irritated the nerve of the muscle, the needle went in the other direction, showing that an alteration of the current was produced. It is not only a constant current going in an opposite direction, but it can be shown that a great number of electrical discharges take place during this state of the muscle, and that the muscular current is in a continuous state of oscillation, so that it acts upon other nerves which are brought under the influence of the muscular current, quite like the electric organ of an electrical fish. Therefore we see that the contraction of muscles is accompanied by electrical currents, and Dubois has proved that every contraction of the muscle and every irritation of the nerve is connected with peculiar alterations of their electrical effects.

Secondly, I told you that heat is produced during the contraction of muscles. It was proved by Messrs. Becquerel and Breschet, by means of the thermo-electrical apparatus, that the temperature of the muscles is raised. They made a little apparatus, a peculiar form of thermo-electric pile, the points of which could be introduced into the living muscle. Breschet found that if the muscle was contracted it became warmer; he found a rise of temperature of one degree. Now, it was doubtful if this increase of temperature in the muscle of a man was produced by an effect of the muscle itself, or whether it was produced by a greater velocity of the flow of blood through the muscle; and therefore I repeated these experiments on the muscles of frogs which were dead, and in which the circulation of the blood had stopped. I found the same effect there. The muscles of a dead frog even, as long as they retain their irritability, become warmer when they are made to contract. Messrs. Billroth and Fick, in Zurich, have made very important observations on the heating of muscles. It was observed that the temperature of such human bodies as died from tetanus was peculiarly high. The common temperature of the blood of the interior of our body is 38° Centigrade. In feverish states it rises sometimes to 40° to 41°, but if it gets to that height, the death of the patient is probably not far off. Now, in such cases of tetanus the temperature rises even to 44°. We can produce tetanus, as you have seen here, on frogs and also on the bodies of recently killed warm-blooded animals; and Fick found that this heat was produced by the muscles alone, that the muscles were hotter than the remainder of the body. So that the great heating power of the muscles was demonstrated by these experiments, and proved to be much higher than it had been known hitherto.

Then I told you that chemical processes are going on in the interior of the muscles. I had an idea at first that it must be so, and I tried to find the decompositions when I was a student. Physiological chemistry was not very far advanced at that time, and I could only find that the quantity of those substances which are soluble in alcohol is increased during the contraction of the muscles; and, on the contrary, those peculiar substances of the flesh which gives the peculiar taste and the peculiar power to beef-tea,—those substances soluble in water were diminished by the contraction, Afterwards my friend, Du Bois Reymond, found that, during the contraction of muscles, the watery fluid with which they are wetted becomes acid, and that lactic acid was formed during the contraction of muscles. This agreed with my former experiments, in so far as the combinations of lactic acid are all soluble in alcohol. But a far greater amount of decomposition becomes perceptible when we look to the quantity of oxygen contained in the muscles themselves, and in the blood which is carried through the muscles. Some new investigations of Professor Ludwig in Vienna, and several of his pupils', show that the arterial blood which is carried through a muscle in the state of contraction is almost completely deprived of its oxygen. When this blood is carried through a muscle which is not in contraction, so that it becomes venous blood, the quantity of oxygen remaining is commonly 7½ per cent., a little more or a little less; but if the muscle through which the blood is carried is thrown into contraction, then the quantity of oxygen is diminished sometimes to $1\frac{3}{10}$ per cent.; therefore nearly the whole quantity of oxygen which is contained in the blood is lost when the muscle is contracted, and remains in the muscle, being chemically combined with the substance of the muscle. These are the results of physiological experiments relating immediately to the muscles themselves. But we find the consequences of this very swift decomposition going on in the muscles during their contraction in the air which is expired; for when the muscles require to have so much more oxygen during their contraction, of course we must take in that oxygen by our lungs, and a corresponding, or nearly corresponding, quantity of carbonic acid is exhaled during that time. Very important researches on the change of respiration, and the chief products of respiration produced by exercise of the muscles, have been carried out during the last few years by your countryman, Dr. Edward Smith, of London. He has constructed an apparatus for measuring the quantity of air inhaled, and the quantity of carbonic acid exhaled, by the lungs of men. It is one which can be easily carried about, and he was able to take it with him in travelling, and going up mountains. He has also used it while working in the treadmill. The treadmill has lately become a physiological instrument of great importance, because it is the most convenient place for producing great exercise of muscle, while the person always remains at the same spot, so that one can very easily connect the mouth or nose with apparatus for ascertaining the amount of inhalation. I have here a little portable gas-meter, constructed after the plans

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of Dr. Edward Smith, which is for measuring the quantity of air inhaled. It contains nothing but a little leather bag, which moves up and down, and you see how this moves when I inhale through the apparatus. [Experiment.] There is a system of little wheels, which show the quantity of air inspired. The whole instrument is so light that one can carry it in going up mountains and so on, and here is an apparatus for condensing the whole quantity of carbonic acid which is exhaled during some hours by the lungs of a man. It has in its interior a quantity of little cellules connected one with the other, so that the air which goes into one of these apparatus is obliged to go through the whole length of these cellules, which are partially filled with a solution of hydrate of potash. The oxygen of the air is by that means taken away, and the fluid in which the carbonic acid is contained, combined with potash, may be investigated chemically, and the quantity of carbonic acid ascertained. This apparatus is very small, so that it can be carried to all places, and is capable of receiving the whole quantity of carbonic acid which is expired during several hours. By these researches we have ascertained the actual qualities of carbonic acid which are exhaled during a long period. All the former experiments were made on too small a scale, and the quantities of the products of respiration were too minute to give any correct calculation for any long period. Dr. Edward Smith has sometimes continued his investigations on the amount of carbonic acid during twenty-four hours, both waking and sleeping, for at last, by practice, he was enabled to breathe through this apparatus while he slept. Now, the great change which goes on in the rate of respiration during muscular exertion is evident to observation without any apparatus. You know that when you go up a mountain where you must raise the great weight of your own body, you get into an intense state of respiration, and the circulation of the blood is made swifter than it was before. I have tried such experiments myself. I found that when awake, and in a state of repose during the day, I inspired nineteen times in a minute. Going up a mountain as fast as I could, I increased the rate of respiration to fifty times in a minute. The number of pulsations of my heart was seventy in the minute in a state of repose, and they were increased to nearly 200 when I was in a state of bodily exertion. The results of Dr. Smith's investigations show even a still greater increase of respiration; so that during great exertion the quantity of carbonic acid exhaled by the lungs becomes five times as much as it is during a state of repose during the day, and ten times as much as it is during the night when you are sleeping. There is, therefore, an immense increase of respiration; and the increase of the chemical processes is, indeed, far greater than the external signs of this increased respiration given by the pulsation of the heart, and the number of inhalations. You see, therefore, that no mechanical power can be developed by our muscles without a great increase of chemical processes. A very important question connected with this fact is, How much of the chemical intensity of the chemical energy of the decomposition of our body is converted into mechanical power? When the body is in complete repose, and it is fed in such a way that its weight and its composition remain unaltered, there is neither increase nor diminution of weight; in such a case the whole work given out by the body is only heat—no other form of energy, if the body is reposing; and the quantity of heat which can be given out by the body must be equivalent to the quantity of chemical energy which is destroyed by the conversion of the combustible substances of our food. We cannot directly determine the quantity of heat which could be produced by the change of food and oxygen into carbonic acid, urea, water, and some other substances which the body loses, as the hairs which fall out, and so on; but we could burn these other substances, so that they also are converted into carbonic acid, water, and ammonia. Now, let the quantity of food and the quantity of oxygen taken by a man or by an animal be combined in the living body, and suppose that those substances which are given from the body, and which are not completely burnt, may afterwards be burnt by heat in an open fire, then you will have all the food converted into carbonic acid, water, and ammonia. You can take the same quantity of food and the same quantity of oxygen, and burn it directly in an open fire, and then you will get the same quantity of carbonic acid, of water, and of ammonia, as before; and therefore the whole quantity of energy produced by these two processes must be the same, according to the law of conservation of force. We can conclude from this that in a state of repose the quantity of heat developed by the human body must be like the difference between the heat of combustion of the food introduced and the heat of combustion of the excretions. Experiments on the amount of heat produced in the living bodies of animals have been performed by two French physicists—Messrs. Dulong and Despretz—who have found that the quantity of heat developed in the living body is equal to the heat of the combustion of the food. They have proved it, as far as it was possible to calculate the heat of combustion at that time. They themselves say, indeed, that the heat of combustion was not completely as great as the heat given out by the living body; but they have used for the calculation a theoretical rule which is nearly, but not completely true. I cannot go into the details of this calculation, I have explained this in a paper written on animal heat. It may be concluded from these experiments that, as far as the accuracy of the calculation of the heat of combustion allows us to judge, the quantity of heat developed in the interior of the body is the same as the heat of combustion. When work is being done by the human body, then this work must be done at the expense of a part, at least, of the heat given out by the body. We have no cooling of the body, because, during the contraction of the muscles, the intensity of the chemical processes is so very much increased that even more heat is produced than during the state of repose; and, according to the investigations of Dr. Smith, it is increased to five times as much as it is in the state of repose. We can calculate, from the experiments of Dulong and Despretz, who found how much heat was developed during a certain state of respiration in some animals, how much the human body would be heated during one hour by the chemical processes going on in its interior. I found that this quantity during one hour is about $1\frac{2}{10}$° Centigrade. This heat of the body would be equivalent to an elevation of its weight through 1760 feet, according to the mechanical equivalent of work done. If we exercise ourselves very much we can attain that result within an hour, but the exercise is rather severe. We find, therefore, that the work done in a state of great exertion is equivalent to the heat developed during a state of repose; and, therefore, of the whole work done by chemical actions, which is, as we have said, five times as great as during the state of repose, one one-fifth of the heat is equivalent to the work which can be done, and four-fifths are really converted into heat, and give the greater quantity of heat which is produced in the body. We find that the amount of energy produced by burning the fuel of a steam-engine which can be converted into heat, is only one-tenth part of the whole, and that nine-tenths are the least proportion which is converted into heat and is destroyed and lost. Therefore, the muscles of our body do not waste so much energy as our best artificial machinery. In fact, it can be shown theoretically that it is not possible to construct steam-engines which can convert a greater quantity of heat into mechanical power. This relation becomes still more astonishing when we consider one of the organs of our body—the heart—which is peculiarly adapted to long-continued exertion. The heart contracts continuously during our life, and presses blood into the arteries. In the arteries the blood has to resist great pressure, and the work which is done by the heart can be calculated. We will suppose that, instead of pressing blood into the arteries, this mechanical energy of the heart should be converted into such a form that the weight of the heart should be raised to a certain elevation; we should find that the human heart raises its own weight during one hour 20,250 feet. Steam-engines, which are able to raise weights to a great height, are used on those railways where the gradients are very steep, and also for going over mountains. When the railway was constructed from Trieste to Vienna, the constructors of steam-engines were asked to build engines the best adapted to raise the weight of a train up a great height. The prize engine was the Bavaria. This machine has power to raise its own weight during one hour 2700 feet. You see, therefore, that the mechanical power of the human heart when compared with its own weight is more than eight times as great as the mechanical power given by the best constructed steam-engines peculiarly adapted to raise the weight of trains. In this way, the mechanism of our muscles surpasses in its effect all our artificial machines which have been constructed hitherto; and the power of flying, which birds and insects possess, is really only possible by the great power which these very light organs, the muscles, develop by their contraction, so that we shall be able to construct flying engines only when we can produce as much power from as small a weight as the living muscles do.

Now I must conclude these lectures. I have been able only

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to give a very short survey of the whole matter, but I hope you will have seen how extended the bearings of this law are for all the processes of inorganic and organic nature, and how intimately it is connected with the most important questions which natural science can bring forward,—and there I must leave it. You will have opportunities of hearing lectures and of reading books, by which you will get better and more especial instruction about these things than I have been able to give you.

CLINICAL LECTURE
ON FLEXIONS AND VERSIONS OF THE UNIMPREGNATED UTERUS.

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(Continued from page 503.)

The *treatment* of these affections is surrounded by difficulties, and often very unsatisfactory in its results. There is, unfortunately, in any case but little tendency to spontaneous cure, and yet injudicious and inappropriate interference is very likely to be followed by aggravation of the symptoms. In some instances we can scarcely hope to do more than palliate the symptoms as they arise, as, for instance, in those where the displacement is produced by the presence of a fibroid uterine tumour, or by the pressure of an ovarian tumour from above. In speaking of the management of other cases, in which we have more hope of doing good, it is convenient to divide them into two classes—1st, those in which the displacement is associated with some removable morbid condition of the uterus or ovaries; and, 2ndly, those in which version or flexion exists without such complication. The first class comprises the largest number of cases, inasmuch as in a large proportion of instances the displacement results from the upper part of the womb becoming too heavy to be kept upright by its usual supports, and the falling backward or forward is therefore secondary to some morbid change active or passive in its operation which has preceded the alteration in position. The first rule, therefore, for guidance in all instances of displacement where there is uterine enlargement with pain and tenderness is that we should first treat the disease of the uterus, and leave the displacement, as Dr. West expresses it, to take care of itself.

It is true that in some rare cases where congestion and hypertrophy of the uterus co-exist with displacement, we may, by pushing up the fundus with the finger, restore it to its usual position, and it will remain there, the recovery from the other ailments being thus much facilitated. But in most patients so suffering, even if we succeed in rectifying the position of the uterus, the fundus gravitates back again immediately the finger is withdrawn; and the case now under treatment in the Hospital is but a type of others very frequently met with, the uterus being so sensitive that the slightest pressure produces severe pain, and any attempt to lift it up either by the finger or with the uterine sound would be likely to do more harm than good.

The indications, therefore, are to endeavour to relieve the local pain, palliate any distressing sympathetic symptoms, and where it is practicable, to promote the return of the uterus to its normal size and weight, as we do in ordinary cases where no displacement is present. To further these objects in the case I have alluded to, four leeches were applied to the cervix uteri, and ʒj. doses of liq. hydrarg. bichlorid. were given, after the plan recommended by Dr. Oldham some years ago. At the same time the bowels were carefully regulated, and moderate diet allowed, and she was recommended to observe strictly the horizontal posture, a most important part of the treatment in all uterine disease. Notable relief was very soon experienced, and improvement has since gone on steadily. Diarrhœa threatened in ten days after her admission, and the bromide of potassium in 5-grain doses was substituted for the bichloride of mercury. I may state that although mercury given in the way I have mentioned is less likely to produce ptyalism than some other modes of administration, and is really most useful, yet it is generally desirable after a time to omit it altogether, and prescribe suitable doses of bromide or iodide of potassium, or of both combined. Another point needing special attention is the management of the menstrual periods. Greater care even than in the interval should be exercised to avert undue congestion, and if any relaxation of the rules as to getting up has been permitted, the patient should now sedulously keep her bed. If much pain is experienced it may be relieved by a pill containing three or four grains of camphor and a third of a grain of extract of belladonna every three hours, or by an appropriate dose of some opiate preparation. The progress of recovery in such cases is at best tedious, often imperfect, and, so long as the uterus lies in its abnormal position, a rekindling of the more severe symptoms is readily produced by an apparently slight cause. If we succeed in reducing the size of the uterus, and the pain and tenderness disappear, while the displacement yet remains, the case may now be ranged with those of the second class; and this brings me to the question, —How shall we treat instances of uterine displacement without uterine disease? In reply to this, I may state that some patients so circumstanced need no treatment whatever. From time to time instances are met with, perhaps accidentally, where the displacement is so slight as to give rise to little or no inconvenience; or, if the displacement be greater in degree, either the womb itself or the system of the patient is so tolerant of the change of position, that it exists months or years without producing discomfort. The experienced Medical Practitioner cannot, nevertheless, lose sight of the fact that, so long as displacement is present, the womb is much more likely than under the ordinary circumstances to take on any of those morbid changes which are favoured by its circulation being impeded and its functions deranged. In all patients, therefore, where flexion or version is known to exist, he would gladly remove the proclivity to more severe attendant symptoms, which may supervene at any time, and, it may be, at the same time remove the cause of sterility or abortion, by rectifying and retaining the uterus in its proper place, if this could readily be achieved.

Unfortunately, any method of treatment with which we are yet acquainted, and which promises any degree of success, entails penalties and inconveniences on the patient, which we are scarcely justified in subjecting her to, on the mere chance of prospective evils which may never arise. Some of the plans proposed oblige her to relinquish for the time all active occupations and duties, and may thus possibly deteriorate the general health. The use of mechanical expedients necessarily entails frequent vaginal examinations; and with some a risk is incurred of stirring up those very morbid processes which we are anxious to avoid. While, therefore, it is better not to interfere locally where displacement produces no special inconvenience—and this applies more particularly when the patients are unmarried women—the Practitioner cannot be absolved from making no endeavour to relieve those patients who are less fortunate, and in whom uterine deviation without obvious uterine disease entails evil consequences. Wherever flexion or version predisposes to repeated attacks of uterine and ovarian congestion, or inflammation, or gives rise to serious discomfort, and sympathetic constitutional disturbance, whenever in married women, it seems unhappily to be the cause of sterility or abortion, he is, I think, bound to attempt something by way of palliation and cure.

Proceeding on the principle that the least possible local interference which will answer the purpose required is best, we may, in a suitable case of retroversion or retroflexion, begin by restoring the womb to its natural position either by the finger pushed up behind the cervix in the vagina, or introduced into the rectum, or, where the finger is not sufficient, by the sound passed into the uterine cavity. The patient should at the same time be directed to keep the prone posture, or to lie on the side, with the pelvis inclined forwards. In this way we get the force of gravity to aid in keeping the uterus in its replaced position; and if in the movements of the patient it again relapses, we may lift it up from time to time, and gradually accustom the organ to keep *in situ*. Throughout, great attention should be given to improve the general health, to regulate the condition of the bowels, and to remove any undue congestion of the pelvic organs which may arise from an inactive state of the liver. We may employ likewise the cold hip bath, the cold douche into the vagina, or some astringent injection, with the object of giving tonicity to the parts and improving the relaxed condition of the uterine ligaments. The observance of these simple rules will occasionally be quite sufficient to remedy the displacement, and restore the patient to health and comfort, particularly if the displacement be recent or be the result of accident. It must, however, be confessed that the instances in which cure is effected by these means are not numerous. In the majority of cases, the fundus uteri falls back to its abnormal position as soon as

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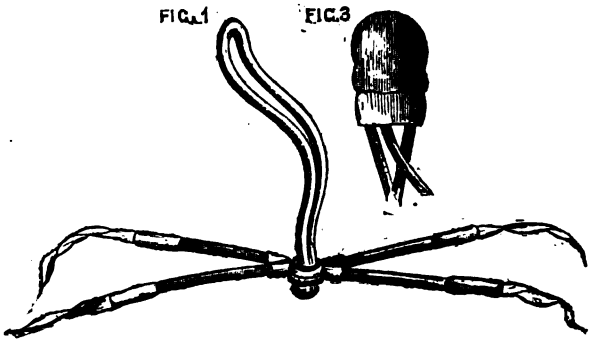
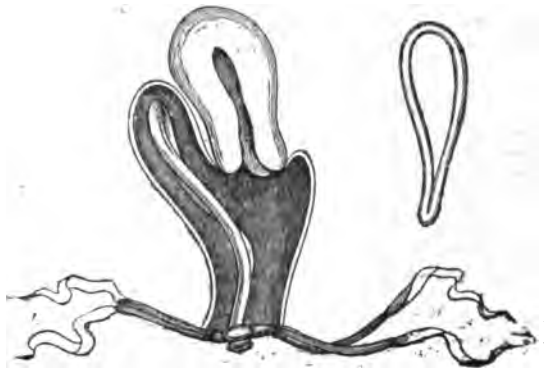
the force which raised it is withdrawn, and a more prolonged and constant use of the prone couch, as recommended by some authorities, while it does not remedy the malposition, injuriously affects the general health. Under these circumstances one naturally turns to the idea of some mechanical contrivance which imitates the finger or sound used in replacing the womb, but which, instead of being a temporary force, may be a permanent support, and at the same time permit, if possible, the patient to move about. With this object various instruments have been invented by Drs. Simpson, Valleix, Detschy, Graily Hewitt, and Routh. Those known as Dr. Simpson's, and described by him in an able memoir in the year 1848, have received the largest share of attention. Dr. Simpson's pessaries consist essentially of a stem to be passed into the uterine cavity, and retained there, either by a base sufficiently large to be grasped by the vagina, or by the union of a wire framework which lies externally on the symphisis pubis, with the base of the stem worn in the interior of the womb. I have seen pessaries constructed on this principle extensively employed both by Dr. Simpson himself and by the late M. Valleix in Paris, and in many cases I have seen notable benefit, result. Much opposition has, however, been raised both in this country and on the Continent to their general adoption; and in a discussion before the French Academy of Medicine ten years ago, the most disastrous consequences were stated occasionally to have occurred. It has not fallen to my lot to witness any results so serious as those mentioned during the discussion alluded to, yet I have sometimes seen much irritation, pain, and hæmorrhage follow the introduction of an intra-uterine pessary, and necessitate its withdrawal. The interior of the uterus in some women is so sensitive that it may be compared with the conjunctiva of the eye,—the slightest touch giving pain; the introduction of the uterine sound being followed by severe suffering, and the retention of an intra-uterine pessary being altogether intolerable. Besides this, the introduction of these supports is not a very easy matter, and their adjustment requires both skill and experience. While, therefore, I should not hesitate to have recourse to an intra-uterine pessary in a suitable case, where other means had been unsuccessfully employed, I prefer commonly to use some support which does not require to enter the uterine cavity, and is therefore less likely to be followed by unpleasant consequences, and to call for a suspension of treatment.

I have found best to answer this purpose a pessary made of gutta-percha, which may have a wire framework, thus rendering it amenable to any alteration of curve which the case requires. The form (Fig. 1) is that of a loop, ending



below in a stem, which projects slightly beyond the vulva, and to this stem elastic straps are attached, which are fastened behind and before to a waistband. The figure is somewhat like the letter S, from which the upper limb has been cut off, the lower limb sweeping over the edge of the perineum. The upper extremity is passed into the vagina and pushed up behind the cervix uteri (Fig. 2), thus raising the fundus and keeping it upright, the elastic thigh-straps retaining it in position without exerting undue pressure. Ordinarily, it is desirable to raise the uterus, and then introduce the support to keep it in position; but this is not always possible, and is not essentially necessary, as the pressure of the pessary will gradually lift up the fundus. My friend Dr. G. de Mussy has suggested that if the upper end were covered by an air cushion, it would not only give more equable support to the uterus, but by filling the space occupied by the reflexed fundus, more effectually counteract its backward tendency. I have, consequently, had a small india-rubber pouch attached to the top, which can be inflated by an elastic bottle after introduction, and thus fulfil the indications mentioned (Fig. 3). (a) If

Fig. 2. Fig. 4.



(b)

rectocele exists as well as retroflexion, or retroversion, the loop of the pessary may be entirely covered over with india-rubber, and it thus answers the double purpose of supporting the uterus and the rectocele. In ordinary cases of retroflexion it is best to dispense with caoutchouc additions, as they are not necessary, and, besides being undurable, provoke more profuse discharges, and produce a greater distension of the vagina. The advantages of this form of pessary are, that it generally produces little discomfort, it distends and relaxes the vagina in the least degree possible, and it permits the patient to take exercise. In most cases, it not only efficiently supports the uterus, but it counteracts also the tendency to prolapse of the ovary, which has been mentioned as one of the troublesome complications and causes of suffering in retroflexion and retroversion. It is probably in those cases, where one or both ovaries are prolapsed and tender, or where the uterus, notwithstanding suitable treatment, remains large and yet sensitive, that the addition of the india-rubber cushion is most desirable. In other instances, as before mentioned, it is best to dispense with it.

Another excellent form of pessary is that invented by Dr. Hodge, of Philadelphia, and called by him the lever-pessary. It is made of vulcanite or gutta-percha, and is somewhat like a horse-shoe in shape, with a curve somewhat like the letter S. There are two principal forms of this pessary. It is passed up behind the cervix uteri, and is altogether contained in the vagina, doing away with the necessity for straps and bandages. This latter is an important advantage, which is, however, counterbalanced, in some degree, by the instrument not reaching quite high enough to keep the uterus erect, and by the tendency it has in some patients to slip out of the vagina during defæcation. All forms of vaginal pessary, even if they do not fulfil entirely the purpose of keeping the uterus in its normal position, may act beneficially by steadying the organ and warding off the effects of concussion. In this way the ordinary round, inflated, ball pessary, introduced into the vagina, by raising and supporting the entire womb, often gives marked relief in any of the varieties of uterine deviation. Pessaries of the kind I have described may be worn for two, three, or more months, care being taken to remove them occasionally for the sake of cleanliness; and it is generally desirable to withdraw them during the menstrual periods. My friend Dr. Moir, of Edinburgh, has recently proposed that, in the more obstinate cases of retroflexion without enlargement, we should dilate the uterus with a graduated series of sponge-tents, thus bringing the womb artificially into the condition observed after early miscarriage, and then allow it to contract gradually upon a properly-adapted series of intra-uterine pessaries. I have not yet attempted this procedure, but Dr. Moir speaks well of it, and he is a careful and trustworthy observer.

When the uterus is anteflexed or anteverted, the same kind of intra-uterine pessaries as those employed in retroflexion and retroversion have been recommended by Dr. Simpson and M. Valleix as equally applicable for keeping the womb erect.

(a) The cap or pouch represented in Fig. 3 is somewhat too large, and is apt to bend over.

(b) Made by Coxeter and by Russell, George-street, Portman-square.

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Vaginal pessaries which do not enter the cavity of the womb are not so readily adapted to support the fundus when it inclines to fall forwards as when it inclines to fall backwards. The attachment of the bladder to the anterior wall directly interferes with the efficient adjustment of the support I have spoken of as useful in cases of retroflexion and retroversion; and the pressure on the bladder during its distension would be a source of serious inconvenience. If, therefore, we relinquish intra-uterine pessaries, we have to content ourselves either with introducing a simple round, inflated ball into the vagina for the purpose of raising and giving a general support to the uterus, or we may employ some of the varieties of pessary which have been devised with the object of keeping the cervix uteri forward towards the symphisis pubis, and in this way using the lower segment of the womb as a sort of lever to elevate the fundus. A disc or ring of ivory or wood, so adjusted across the pelvis that the cervix is retained in its centre, was used by the late Dr. Dewees and others.

I have employed advantageously with the same view a pear-shaped gutta-percha loop (Fig. 4), first showed to me by Dr. Simpson, and which passes up behind the cervix, supporting it and drawing it forward, the narrowed and lower extremity which lies over the edge of the perineum being free and unattached to bandages or thigh straps.

The pessaries of Dr. Hodge would no doubt fulfil very well the same indication. The simple loop (Fig. 4) I have also used advantageously in some of the less obstinate cases of retroflexion.

In conclusion, I may add that, in all the forms of uterine displacement, great care should be taken that treatment interferes the least possible with the general health; and that in all cases where there are evidences of feebleness, anæmia, and mental depression, these should be counteracted by appropriate means.

ORIGINAL COMMUNICATIONS.

CASES OF SOFTENING OF THE BRAIN AND SPINAL CORD.

By JOHN W. OGLE, M.D., F.R.C.P.,
Assistant-Physician to, and Lecturer on Clinical Pathology at, St. George's Hospital.

(Continued from page 479.)

Case 8.—E. M., aged 25, was admitted June 27, 1846. Ill ten days with constant pain in head and sickness; began with rigors, pain in head, and vomiting. Three days before admission, headache became worse, and leeches were applied to temples, with relief; pain recurred, and he was then cupped. Bowels open with medicine.

On Admission.—Face flushed and anxious; skin warm; eyes injected, with great intolerance of light; pupils dilated, especially the right one, which scarcely acted at all; slight ptosis of left upper eyelid; vision imperfect, and said to be sometimes double and "treble;" sometimes sight was clear when only one eye was used. No paralysis of limbs; no convulsive movements. Memory imperfect, and could "not answer for what she said." Constant pain in head. Tongue white, moist; pulse 90, weak. No petechiæ observed on skin. Abdomen soft and tympanitic. Slight tenderness of the epigastrium. Ordered calomel and senna, with saline draughts and cold lotion to head.

Somewhat delirious at night. Morphia at bedtime, and wine given. Headache became worse, and more delirious. Pupils more dilated; ptosis of eyelid worse; pulse 120. Evacuations passed unconsciously, and twitchings of lower limbs came on, with partial loss of motion. Epistaxis and hæmoptysis supervened. Head turned away from light. Twitchings of legs. Tongue pushed to the left, and became worse. Counter-irritation behind ear, and aperients resorted to. She gradually sank without any convulsive movements, and died July 2.

Post-mortem Examination.—Cranium: Bones of head thick and heavy; diploe quite obliterated. A bony projection from the inner surface of the frontal bones on left of the great longitudinal sinus was found. Veins and sinuses of cranium and choroïd plexus and brain gorged with blood. Arachnoïd white and opaque about Pineal gland only. Lateral ventricles full and dilated. Fornix softened and creamy. Thorax.—Patches of ecchymosed blood existed in the lungs. Heart natural. Abdomen: Kidneys congested. Blood-coagula, one of the size of an egg, in the broad ligament of uterus. Other organs natural.

Case 9.—Susan W., aged 47, was admitted into the Hospital December 30, 1847. Had had an apoplectic fit two years before, which had left partial hemiplegia on the *right* side. Remained the same until nine months ago, when another fit occurred; again been bedridden, but sensible until two weeks before admission (but right side paralysed), when a succession of fits came on, and paralysis of the right side more complete. Evacuations then and since passed unconsciously. Admitted stertorous and insensible; no strabismus or facial paralysis; pupils sluggish and dilated; urine, by catheter, albuminous; sloughing of the back came on. Gradually sank, and died on January 3, in spite of stimulating enemata and stimulants, with counter-irritation.

Post-mortem Examination.—Cranium: Much arachnoïd serous fluid found. Half of the middle of the *left* cerebral hemisphere very softened, and *left* corpus striatum broken down. Remains of old clot at under part of *left* corpus striatum and optic thalamus. At under surface of left cerebral hemisphere (middle of anterior lobe), spots of ecchymosed blood found, and in substance of brain corresponding, many bloody puncta. Great atheroma of vessels at base of brain, *in some cases almost obliterating the calibre of the vessels.* Much fluid in lateral ventricles. Thorax.—Lungs congested. Heart hypertrophied and dilated. Valves healthy. Slight atheroma of aorta. Blood fluid generally. Abdomen: Kidneys granular, dwindled, and contracted.

Case 10.—Wm. R., shoemaker, aged 32, admitted into the Hospital December 5, 1849, with loss of power in arms and legs, but chiefly of the *left* side. Loss of power appeared greater in upper than lower limbs; could limp about, but could not feed himself. Illness had come on quite gradually, and without any "fit." Pain affecting left side of head and face. Great indistinctness of articulation; indolence and apathy; pallid face; pulse quiet; tongue coated; gums tender, owing to the use of mercury. Ordered aperients and alum gargle, and blister to nape of neck. The loss of motion in the arm became greater. Occasionally severe headache. Ordered decoction of aloes, ʒss., ter. die. Vomiting supervened, and also greater apathy and tendency to sleep.

The mind began to wander. Pulse became more feeble. The face became expressionless, and rather drawn to the right side. Mercurials were given. Gradual stupor preceded death, which occurred December 20.

Post-mortem Examination.—Cranium: Cerebral membranes healthy. Surface of upper and outer of *right* hemisphere depressed (size of shilling), and here the grey and white matter was softened, containing as it were a small cavity with irregular walls, and eaten away like the edge of an ulcer. The pia mater here and around more vascular. Another softened part of the same size existed at the under surface of the middle lobe of right hemisphere. Ventricles dilated with serous fluid. Septum and fornix firm. Thorax: Lungs congested posteriorly; heart natural. Abdomen: Kidneys diseased and granular, etc.; other organs natural.

Case 11.—W. W., aged 57, admitted December 4, 1850, greatly exhausted; much pain in head and limbs; face dusky; skin coolish; pulse feeble. Ordered the iodide of potassium thrice a-day, and opium at bedtime. Blisters behind ears.

The pain became very severe. Breathing oppressed, with a little cough and frothy expectoration. Chest resonant, but with rather deficient respiratory movements, and full of sonorous and moist râles. No cardiac bruit. Urine free from albumen, scanty. Bowels not open. Ordered calomel and senna. He became low and depressed, and the cough and dyspnœa increased. Stimulants were freely given, but he gradually sank, and died January 8.

Post-mortem Examination.—Cranium: On inner side of the *right* middle cerebral lobe, half an inch above corpus callosum, a portion of medullary substance (size of small nut) was softened, and of a yellowish colour, and easily separated from medullary portion; otherwise, the brain was healthy. Thorax: Lungs emphysematous and containing crude tubercles; seropurulent fluid and lymph existed in the peritoneal cavity.

Case 12.—Thomas T., aged 54, admitted June 6, 1852; a dissipated man. Injured himself on the elbow by a wound which bled freely, dividing some superficial veins. Tinct. opii., ɱx., ordered at once. Inf. rosæ, tinct. opii., ɱx., 6 tis horis. He became delirious, and passed a restless night. Hands very tremulous; skin dry; tongue moist. Porter and

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rum (4 oz.) ordered. He afterwards slept better, but still was delirious, and fancied he saw objects of all kinds about him. Ordered inf. rosæ, c., tinct. cinch., and tinct. opii., 4 tis horis, and under this improved and became rational, but still was tremulous in movements. He became again delirious, and vomiting set in. Egg-flip given. Skin became hot and dry, and pulse flickering and weak. Ordered pulv. opii., gr.j., 4 tis horis, in addition to egg-flip. Muttering delirium came on; he became violently excited. Coma preceded death, which occurred June 19.

Post-mortem Examination.—The open mouth of divided veins seen in the wound, like those of arteries, having been glued by inflammation to surrounding parts. Some of these veins were traced, and found filled with pus-like fluid. Cranium: Much sub-arachnoïd fluid found. Patch of old lymph on the arachnoïd cavity anterior part of right hemisphere; pia-mater congested. On the upper part of the *left* cerebral hemisphere was a small circumscribed patch, where the cerebral matter looked as if bruised, and was diffluent. Whole of brain wet and pale. Thorax: Lungs emphysematous. Small mass of tubercle in one lung and an old cicatrix. Abdomen: Kidneys granular; other organs natural.

Case 13.—Maria B., aged 33, admitted August 21, 1854, with scirrhus of left breast, which was amputated. Went on well for some days, but phagedæna set in. Ordered tinct. opii., ʒss., 2 tis horis. Subsequently seized with apoplectic fit, after which the whole of the right side of body and left of face was paralysed and power of articulation destroyed. She was also unconscious. A turpentine injection administered. She remained unconscious for a length of time, and was placed under the influence of mercury. She gradually recovered power of speech, but imperfectly; pulse remained quiet; the distortion of face continued, though diminished. She partially recovered power in arm. Anasarca of legs set in. Subsequently a bed-sore came on. She became attacked with bronchitis, and died apparently from bed-sores, December 1.

Post-mortem Examination.—No abscess or sinus about the breast existed. Thorax: Lungs congested. Coronary arteries of the heart very atheromatous. Cranium: Much sub-arachnoïd fluid existed. Brain generally diminished in consistency, but fornix and septum lucidum more so. Lateral ventricles distended with clear fluid. Posterior and upper parts of *left* optic thalamus to the extent of a threepenny piece, of a light ochrey colour, and very softened. Greater part of the posterior portion of the left corpus striatum and neighbouring part to three-quarters of an inch outwards, and also downwards so far as to involve the anterior part of the middle and a portion of the anterior lobe of left side, even to surface of the convolutions, was very softened. Extremity of middle lobe was quite broken down. On *microscopical examination* of the softened part of brain, it was found to clear considerably by hydrochloric acid. It contained numbers of granular cells, which were cleared also by acetic acid and also by sulphuric ether, also numbers of fat globules, and of dark yellow round and angular bodies in and around the minute blood-vessels, not affected by hydrochloric acid, and many cholesterine plates. The Basilar artery and branches natural, and also the circle of *Willis, except the left middle cerebral artery, which shortly after its origin was opaque and firm, retaining its cylindrical character (its consistence being that of cartilage)*; but as it became less by subdivision, both it and its branches outside the brain were entire and natural. Abdomen: Fœtid liquid green pus was found behind the cæcum in the areolar tissue, and in the midst of this the appendix cæci was found thick and vascular, and pierced by an ulcerated perforation. Cyst of ovary adherent to cæcum. Kidneys light yellow, with flakes of fibrine in their substance. Abdominal aorta atheromatous.

Case 14.—Mark B., aged 44, admitted May 24, 1854. Had had a stricture of urethra and a "false passage." Rigors came on in connection with the necessary catheterisms. On one day (August 31) he suddenly experienced faintness, with lividity and blueness of face and body, and the pulse became imperceptible. There was no coma and no spasm of the glottis. He died one hour after the seizure. He had previously never had any fits.

Post-mortem Examination.—Cranium: Dura mater very adherent to skull. Brain softer and more vascular than natural. Fornix and septum softened decidedly. Cerebral ventricles very large. Thorax: Organs natural. Abdomen: Kidneys congested. Double stricture and abscess of the prostate were found also.

Case 15.—Fred. F., aged 25, an intemperate man, admitted into the Hospital June 25, 1855, in fairly good health until ten days previously, when, after lying in damp grass, he suddenly felt great pain in the head on rising, and also numbness all down the right side of body, which continued for a week. He then had a "fit."

On admission the *left* arm and hand, and the left side of the face were found to be much paralysed as to motor power, but he managed to walk into the ward; sensibility of skin everywhere natural; *left* arm was rigid and clenched against the breast; pupils of eyes equal, sluggish, and slight convergent squint of the left eye existed. Sphincter of rectum paralysed, and the urine only passed after a length of time, and with difficulty (sometimes an hour, the neighbouring patient said he was, in voiding it); sounds of the heart natural; his manner was wild, and he laughed strangely; his nights were restless, and in a day or two much pain at the forehead came on and vomiting; peculiar flickering movement of the muscles of the *left* side of the face, eyelids, etc., and also of the *left* arm came on.

Subsequently on one day he had three or four convulsive "fits." In the first one he became "black" in the face; in the others the right arm worked very much, and there was much snoring noise, but no screaming, and both arms remained fixed. The eyeballs rolled much, and the left one chiefly turned upwards and inwards and the right one upwards and outwards; mouth slightly drawn to the left; tickling of either sole of the foot produced much general movement of the body. Treated by purgatives, blisters to neck, cupping to temples, and calomel every few hours. Subsequently he fell into a semi-comatose state, with stertorous breathing and dyspnœa. After one of these convulsive attacks he gradually sank, and died July 1.

Post-mortem Examination.—All the limbs were rigid; the left eye three-quarters open; the other closed. Cranium: Intracranial veins and sinuses very full of blood and in the superior longitudinal sinus a small, oldish, discoloured clot; arachnoïd in places opaque, and much fluid existed beneath this membrane and in the ventricles; inner surface of ventricles, corpus callosum, septum, and fornix all much softened. Slight yellow lymph under arachnoïd covering upper parts of the cerebellum; other parts of brain natural. *Microscopical examination* of the turbid fluid in the ventricles showed the presence of numerous large and small, round, oval, delicate cells containing from one to three nuclei; some very large free nuclear bodies; some large club-shaped cells rather hooked in form and containing single nuclei, and of these some appeared double as it were, one nucleus being common to two. Moreover, some of these large cells had three projections from their walls (triply caudate). In addition many loose nerve tubes were found in the fluid; no compound or granular corpuscles existed, and nothing like blood-vessels. No glomeruli (but only fatty matters) was met with in the softened surface of the ventricles. Other organs of the body natural.

(To be continued.)

CLINICAL NOTES AND OBSERVATIONS.

By F. A. BULLEY, F.R.C S.,
Senior Surgeon to the Royal Berkshire Hospital, Reading.

INFLAMMATION AND GANGRENE OF THE THIGH.

William T., a farm labourer, aged 52, was admitted into the Hospital February 22, 1864, apparently in a dying state. His lips, gums, and tongue were covered with a brown, typhoid fur, his pulse was scarcely perceptible at the wrists, his breathing short and frequent, and his skin generally dry and somewhat hot, with constant thirst, and low, muttering delirium. On examination I found the right thigh greatly increased in size, with a dark-coloured slough of the integument on the inner side, extending from within two inches of Poupart's ligament, about two-thirds down the thigh. The surrounding skin, nearly as far as the knee-joint on the inner side, was of a dusky red colour for some distance beyond the slough, and here and there in this reddened border were spots of darker colour—little ecchymoses, as of commencing gangrene of the cellular structure underneath. The destruction of the skin had been preceded by the formation of some large vesicles, containing a serous fluid mixed with blood. The fascia exposed by the destroyed integument was in a highly putrefied state, with a feeling as if matter in some quantity was contained beneath it. He had always been a very temperate man, and had latterly lived very poorly, and, indeed, insufficiently, from the largeness of his family. The parts of

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the limb below the gangrene were of the natural temperature and appearance, and entirely free from any gangrenous discolouration of the integument. The foot was warm, and properly supplied with blood through the tibial arteries, which were apparently quite pervious.

His wife gave me the following account of the commencement and progress of his disease:—He had for some time past, when at his work, been subject to sudden attacks of severe pain at the pit of the stomach, attended with most distressing flatulence and palpitation of the heart. He said he sometimes felt as if his heart would burst, and on some occasions had the greatest difficulty in getting home. On the morning of his last seizure, five days before his admission into the Hospital, he went to his work, seeming better than usual; it was an intensely cold frosty day, with a cold easterly wind blowing. Quite suddenly, while working in the farmyard, he was seized with a shivering fit, and immediately afterwards he said he felt a sudden severe pain, and a sensation like cramp in the inside of the affected thigh. Being taken home, the thigh was observed to be very much swelled and red, and in the evening some black marks, like bruises, appeared upon different parts of its inner and posterior aspect. The next morning the black marks had become larger, and upon those which had appeared earliest vesications were beginning to form. This was attended with a great amount of fever of a low type, as indicated by his brown tongue and sordes on the gums, which had continued until the time I saw him. There had been no moisture on the skin during the progress of the fever, and his motions, generally of a relaxed nature, had been all along particularly unhealthy and offensive.

For treatment, he was ordered to take twelve ounces of port wine daily; an oatmeal poultice to be constantly applied over the sloughing parts; to be constantly supplied with strong beef-tea; and to take a mixture containing quinine in the decoction of oak bark every four hours.

23rd.—Next day. Has passed a feverish, delirious night. The gangrene of the skin has extended, and become more generally detached by the poultice, leaving a large surface of gangrenous fascia exposed beneath. There has been a great discharge of matter through some openings in the sphacelated fascia. He is very low, apparently sinking.

24th.—Seems somewhat better; his breathing is not so short as it was last evening, and he is more sensible. The foot and leg continue warm, and free from any appearance of gangrene. There has been a great discharge with the poultice.

25th.—Very restless during the night, with increasing delirium. Pulse almost imperceptible this morning; mouth literally filled with sordes; every appearance of approaching death. Towards evening his breathing became obstructed by accumulating mucus in the lungs, his pulse gradually became weaker and weaker, and he shortly afterwards expired.

The friends of the patient obstinately refused a post-mortem examination of the body, and even of the affected extremity; but it was evident that the gangrene was confined to that portion of the limb supplied by the profunda and its branches, the parts immediately adjoining being comparatively free from change.

It is difficult, of course, in the absence of direct proof, to assign an exact cause for the sudden and destructive inflammation observed in this case; but from the circumstance of the patient having obviously exhibited symptoms of diseased heart prior to the fatal attack, it is not improbable that it may have been the result of embolism, or, as the term implies, a separation or displacement either of some morbid vegetation previously adherent to the mitral or aortic valves, which had accidentally made its way into the profunda artery, and there become impacted, or by a coagulum of blood formed in the heart during the protracted cold stage of the attack, which had been washed out by the rush of blood on reaction, and become similarly fixed in this vessel, instead of passing, as might be more easily supposed, and, I believe, more usually happens along the straightforward current of the femoral, and becoming ultimately arrested in its course only by having arrived at a portion of the artery in the same straight line, of too small a calibre to allow of its further progress. In the case which I have related, it is possible that, at the moment of the occurrence of the embolism, or at least in the passage of the embola down the femoral artery, the limb of the patient might have been in such a position as to cause the muscular compression of that vessel in some part of its course, and thus occasion the foreign body to pass out of its more natural course into the profunda.

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SATURDAY, MAY 14.

THE MEDICAL COUNCIL.

The Minutes which we published in our last week's number contained the Report of the Finance Committee, and the "statement" of the British Pharmacopœia account. We doubt not that these have been examined with very considerable interest; they show that the income of the Medical Council was for the year 1863 £5467, of which as much as £4386 15s. was derived from fees paid during the year—a very handsome annual tax for the Profession to pay—a little fact the knowledge of which must considerably increase the interest with which they watch the proceedings of their Parliament. The British Pharmacopœia cost altogether the pretty sum of £6329. The sale of it has already produced £5022—nearly all of it money actually received; and as Her Majesty's Government is the only purchaser who has not yet paid up, we may, we suppose, fairly congratulate the Council on having made no bad debts on their Pharmacopœia account. We are eager to compliment them whenever we can; and, looked at purely from an £ s. d. point of view, their Pharmacopœia seems to have been quite a brilliant success. It was not intended to be a profitable investment (we suppose); but five-sixths of its cost have been already repaid, and the value of the stock on hand gives a handsome surplus. Even the—dodge, shall we say?—well, the politic expedient, or the happy accident—of publishing the more expensive edition some weeks before the cheaper one has brought its full reward. Of the 13,000 copies published of the 8vo edition, 12,115 have been sold; while of the 15,000 copies of the 32mo edition, only 2730 have as yet gone off. It may, indeed, be objected, on the other hand, that the British Pharmacopœia is full of faults and errors, of commission and omission; that for all the purposes of a Pharmacopœia it is nearly useless; that a revised and amended edition will be required before the Profession can accept it as a working implement; that this necessity has been so far recognised that arrangements have already been made for the production of such an edition, &c. But grant all this, and what then? The British nation is spending every year vast sums on what some consider as nothing but failures in the way of new means of offence and defence; and shall we grumble at a costly failure or two in the reconstruction of our own Professional artillery? What are a few thousands, more or less, to such a wealthy Profession as ours?

We were in error in stating last week that a new system of registration of Medical students had been approved and adopted by the Council. The Report of the Sub-Committee on Registration was "received and ordered to be entered on the Minutes," but the consideration of it was "deferred till after the discussion of the question of Professional education." The Select Committee on Education have since reported on this subject, with the others referred to them, and their re-

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commendations, which were, in fact, those of the Registration Sub-Committee, have with slight modifications been adopted by the Council. They advise that students be registered only once, viz., at the commencement of Professional study; the register is to note the name and age of the student, the preliminary examination and its date, the date of registration, and the place of study; the Registrar of the General Council is to prepare an authorised list of all registered students, and to supply copies of the list to all the Licensing Bodies, who are to be requested not to examine, after October, 1868, "any candidate for licence or degree whose name does not appear on the authorised list of Medical students." We are inclined to think that this system will be found highly useful; it is very simple, and can be easily worked through the Licensing Bodies and the Branch Registrars.

We publish this week two of the most important speeches on professional education and examination. We hope that it will not for a moment be thought that there were not many other very important speeches delivered; we would not suggest even any invidious comparison, but the speeches we publish appeared to us the fullest and most weighty on the subjects treated of, and we particularly recommend Dr. Parkes' speech to the attention of our readers. He has had, as it were, to examine the examiners of the various licensing boards, for all the men who come before him for examination have been already passed into the Profession; most, if not all, of them possess a double qualification, and it must excite the gravest astonishment and reprehension that men so grossly ignorant of their Profession as some of these diplomaed candidates proved to be could have found it possible to obtain any qualification from any licensing body whatever. How can we wonder that Medical men should but too often make such a pitiable figure in practice, in the witness-box, and before the educated public in general, when we read such confessions of gross incapacity, and "dulness all over," as Dr. Parkes has given us from the army examination-papers? We should much like to know how long ago or how lately the answers especially quoted by Dr. Parkes were given, for the Horse Guards authorities have of late years been most consistently and untiringly endeavouring to make the Army Medical Service so unpopular that few really able or "good" men will think of it, and they have succeeded at last in converting it into a Refuge for the Destitute;—a Workhouse, to which only the very weakest and most incapable of the products of our schools will resort, as the only mode of escaping starvation. Is it not true also that the service has of late been recruited almost exclusively from one part of the kingdom? Has not the Medical press of that part rather boasted of this as a kind of triumph?

Still, console ourselves as we may with the reflection that the Army Examining Board has now to deal chiefly with the very dregs of our schools, the fact remains that these men do come before that Board as qualified Practitioners, and the question recurs—How is it that such men can possibly obtain any qualification at all?

The divided responsibility of the Licensing Boards has probably much to do with it. One cares only for Surgery and Surgical Anatomy; a second for Medicine, Medical Anatomy, and Midwifery; and so on; and so between the various stools candidates who would disgrace any body of educated men slip into the Profession. In this way only can it be explained how such men have appeared before Dr. Parkes as legal Practitioners, or how men possessing a qualification shall, by a second Examining Board, be proved to be utterly ignorant of the composition of water, of the atmosphere, or of the commonest medicines, and incapable of reading an ordinary prescription.

The select committee suggest that the Licensing Bodies, etc., should consider, before the next session of the Council, "Whether it be advisable and practicable to establish in England, Scotland, and Ireland severally, a conjoint Examining Board, before whom candidates may be subjected to a single series of examinations for the double qualification of Physician and Surgeon." It is a valuable suggestion, but we should prefer that there should be, for each division of the kingdom, a central Examining Board through which all men should enter the Profession, and upon whose qualification men may embroider special and higher degrees or diplomas in Medicine, Surgery, or Midwifery, obtained by examinations instituted by the several Universities, Colleges, and Halls. It is only by some such means as this, we think, that we can be sure that no man shall be able to enter the Profession without being really fitted to practise. We agree with the declaration made by an eminent Physician at a dinner of a Hospital School, that "he despised the man who was incapable of practising his Profession from the administration of a glyster upwards."

The whole debate on Professional Education was valuable, as amply showing the hopelessness of our looking for any definite scheme of education or examination at present from such a Board as the Medical Council. Though no one will doubt the ability and honesty of intention of all its members, their speeches irresistibly force upon us the impression that each man thinks more of the particular college or corporation he represents than of the public good—he gives to his own party what is due to mankind. We are sure that all the alleged "difficulties" and "impossibilities" in the way of making students work, of obliging them to attend lectures, class examinations, etc.; of giving real clinical teaching, of making examinations for a license practical, and so on, would all disappear if men were only thinking of making thoroughly efficient Practitioners, and not at all caring whether such changes might not make St. Boniface's School unpopular, or the examinations at Celsus College and St. Gregory's University shunned; and we further believe that a school which should have the courage to adopt a good collegiate discipline, and "send away," or rusticate, men who only wasted their time in idleness or vice, would eventually and quickly become a highly popular school. At the same time, we do not ask for a rigid, detailed scheme of education; a bed of Procrustes for Medical Students; nor do we greatly care how or in what exact order of succession a man gets the required knowledge, so long as we can be satisfied that he does get it before he gets his license to practise.

As to the Preliminary Education, we regret that the Council have not had the courage yet to fix a minimum standard; such a guide would have been of great value, and we cannot understand why it should not have been given. The precise number of subjects we do not think of primary importance; but we confess that we do not think it would be going very far to require that a boy of 17 who desires to enter one of the learned professions should have some knowledge of Greek as well as of Latin (we would *not* require Sanskrit); nor can we agree with the President of the Council when he argues against transferring the subjects of chemistry and botany to general education, because this would be "incompatible with the present system of education of the majority of English schoolboys. If it were done, it would exclude from the Profession most of those brought up at the larger schools, such as Eton, Harrow, Rugby, etc." Whatever was required, that a boy would be taught somehow; one instructor's difficulty or impossibility would become another's opportunity, and the supply in instruction would undoubtedly meet the demand and the necessity; examinations and qualifications should surely guide and foster education, not wait upon it.

But whatever subjects may be demanded in the Preliminary Examination, the chief point looked to should be *thoroughness* of knowledge, so that when students begin their Professional studies they may have already learnt how to learn, instead of coming, as they too often do, to a Medical school without the least conception of what really *knowing* any subject means.

We believe that the Council finally rose on Saturday, but as we have not been able yet to obtain the minutes of the last meeting, we cannot finish the subject this week.

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THE DEBATE ON THE PRESENT STATE OF THE ARMY MEDICAL DEPARTMENT.

It is with a feeling of gladness that we direct attention to that part of our journal which contains the debate in the House of Commons on the 5th instant. Colonel North and General Peel deserve infinite credit for bringing the lamentable condition of the Army Medical Department into prominence. Upon the whole, the question was fairly met, and there was as much candour in the reply by the Marquis of Hartington as we can reasonably anticipate from official lips. No doubt there is some force in his observation that we must look to the numerous openings for Medical men offering much greater advantages than Her Majesty's army as one of the causes of the present dearth of candidates. It is notorious, however, that the authorities were sowing the wind when they abrogated the Royal Warrant of 1858, and they have themselves to thank if they are now reaping the whirlwind. When they cancelled a single term of that Warrant, they were breaking faith with all those who had entered the service under its provisions and its promises. No subsequent restorations wrung from them by sheer necessity could stay the current of discontent which had set in. The Warrant of 1861 and the Queen's Regulations of 1859 are sufficient proofs that the Royal Warrant of 1858 was not acted upon. Medical officers found themselves burdened every year with more work and fresh duties; they discovered that they must be moved from one foreign station to another or submit to half-pay; they saw, or thought they saw, many of their accustomed privileges passing away, and they felt that a spirit of miserable parsimony and a petty interference with them in the discharge of their duties were in rapid development. Men began to ask themselves what material advantages the service offered, and they were not slow in discovering how small these were. The younger men found they might live, die, or retire Assistant-Surgeons as far as promotion was concerned. No wonder they contrasted their position and prospects with those afforded in other walks of life, and that the result was very adverse to the Army Medical Department.

It was not so much a question between combatants and non-combatants as an equitable and, above all, a clear definition of the functions and rights of each that was required. The question of relative rank was only mooted when the authorities had withdrawn from the Surgeons the rank assigned to them by the warrant; and it was elevated to a prominent position by the discussions which took place in the military journals. This was not the seeking of the Medical officers, but it was fomented by the intemperate and invidious letters from combatant officers in the military organs. The better class of men deprecated the discussion in this way as likely to promote a spirit of antagonism between them and their executive brethren. Unfortunately very much of the present discontent and unpopularity of the Department has arisen from circumstances which need never have occurred had the Department been true to itself—had there been the same conviction that Whitehall-yard was to the Medical officer what the Horse Guards is to the combatant. We do not pretend to explain—we are content to state the fact—that when Mr. Alexander was at the head of the Department, there was none of this grumbling among his subordinates, although some of the causes of complaint were in existence.

The members of the Department viewed with dismay the imposition upon them of derogatory and unprofessional duties, such as are involved in the present regulations for branding soldiers, and they asked themselves whether it were just or logical that "a system of imposing fines on Medical officers for passing recruits"—as it was fitly characterised by Earl de Grey and Ripon—should ever have been put in force.

With the older and better class of Medical officers—those who have the interests of their Profession and the science at heart—the introduction and threatened swamping of the department with an inferior class of men were matters of genuine regret. The Director-General might hold that Marlboroughs and Wellingtons were common characters among military officers, but the competitive examinations must have taught him that Brodies, Coopers, and Jenners were not plentiful among the candidates presenting themselves for examination. We glow with shame and indignation as we peruse Dr. Parkes' masterly speech in defence of competitive examinations for the public service. It is truly awful to dwell upon what might have been the case but for the protection which these examinations have thrown over the soldier. By every principle of humanity and common sense the nation is bound to protect itself and its servants against such gross ignorance as Dr. Parkes has found among the Medical candidates for the army. The existence of such illustrious ignorance is so discreditable to us as a Profession, that we would fain hope that the very worst specimens of the Profession had been tempted to try their chances with the army, in the bare hope that they might gain an access under the pressure of that necessitous law which was driving the authorities to obtain Medical men anywhere and anyhow. It may, we think, be accepted that the more highly educated and better born the Medical officer, the better will it be for those with whom he mixes and for whom his services are exercised. Now, one thing appears certain, that if the Medical ranks have to be filled up in the way they have been lately, there will be a wide chasm between the Medical and the executive branches. A certain standard of scientific attainments is happily guaranteed by the army examinations; but this is not everything. Courteous bearing and urbanity in small things flow out of a due admixture of self-respect and educated tolerance. These are the fruits of a social kind of influence, obtained in a sphere very different from that of a Medical University. All the world over, the less self-respect, the greater the desire to obtain the outward semblances of dignity, under the guise of what is reflected, say, from military dress, manners, and authority.

We desire to see the day when the Medical Department is recruited from the rank of the most gentlemanly and best educated men of our Universities. Medical officers are called upon to mix with gentlemen; they represent our Profession in the most diverse and opposite parts of the globe; they have opportunities for studying epidemic and other diseases which are surpassed by none; and they have equal advantages for furthering the progress of knowledge and the advance of science. What we want, then, is, that our army brethren should not only occupy a high place in our Medical and other literature, but that they should raise us as a Profession in the estimation of the public by their learning, their courtesy, forbearance, and the exercise of good works to all. There is no more honourable calling in life than that of an Army Surgeon. We have watched the gradual dissolution of the Medical Department with sorrowful interest, and the time is coming when we may anticipate that something shall arise, Phœnix-like, out of its ashes.

THE WEEK.

THE APPROACHING ANNUAL MEETING OF THE "ROYAL MEDICAL BENEVOLENT COLLEGE" AND THE SCHOOL.

As the day draws near for the annual meeting of the Governors of the Royal Medical Benevolent College, the question of the school recurs to our mind. Nor are we alone in this. It is the very topic which the Council of the College will introduce for discussion. The point for us to settle, and for each governor to settle in his own mind before he goes to the meeting, is, whether the mode in which the Council suggests that it shall be dealt with is that which ought to be adopted, or which the interests of the Profession demand shall be condemned. The proposition of the Council may be learned from our advertising columns. Briefly, it is this:—To receive into the school the sons of persons who are *not* Medical men, charging them £65 per annum; while the sons of Medical men, who may remain as "exhibitioners," shall continue to

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pay the obnoxious £40 per annum. But this is not all. For every lay scholar thus admitted, a Medical man's son is to be excluded, inasmuch as the total number of scholars is not to be increased, but, on the contrary, absolutely to be reduced from 200 to 180. In other words, not only does the Council propose to continue breaking faith with its original supporters by charging £40 in place of £25, thus no longer making the education at the College a boon to the less wealthy amongst us, but they positively go the length of proposing to oust the son of a Medical man whenever they can get an extra £25 a-year by *substituting for him the son of a layman*. Their proposal can mean nothing short of this. Did it mean less, some limit would have been placed upon the power which they ask the governors to confer upon them. Once let the resolution be passed, and the College might displace half their Medical scholars for whose benefit the school was established, in order to substitute for them as many boys who have no connection with our Profession at all—any boys, in short, who might be lucky enough to find a friend amongst those members of the Council who would make Epsom a second Eton. Will the governors permit their Council thus to wipe out the word "Medical" from the scholastic department of the Council, and shall it be no longer "benevolent" in any other sense than being "charitable?" Will no member of the Council itself stand up on the 18th inst. and protest against the scheme? Is there not one among them with the courage to express before the governors his dissent from so monstrous a proposal? We know that the Council is divided. Let those in the minority declare themselves, that each governor may learn who they are that are the friends and who the enemies of their order; who it is that would divert the stream of benevolence from its proper channel; who it is that, not content with robbing the poor, seeks further to aggrandise the rich. We entreat the governors who really have the interests of their poorer brethren at heart, although they may talk and protest about it less than the Treasurer does, to attend the meeting. It will be the most important annual meeting yet held. The very principle on which the College is founded will be undermined if the proposition of the Council is carried. Let them keep this in mind. Altogether a different motion is advertised to be proposed by Mr. Cattlin, which will give the governors an opportunity of expressing by their votes their desires upon the subject.

THE PARISIAN POISONING CASE.

The trial which is now going on at the Court of Assizes of the Seine, before M. Le Conseiller de Boissieu, presents so many points of Medico-legal interest that we propose hereafter to notice it at greater length. The accused Count La Pommerais is not a Physician, as has been stated in most of the journals, but a homœopathic Practitioner. He is charged with having, on November 17 last, poisoned his paramour, a widow named Pauw, for the purpose of obtaining £22,000, for which sum he had induced her to insure her life. Although an homœopathic Practitioner, he was found to be possessed of large quantities of the most potent poisons. The poison which he is believed to have used was digitaline. On June 11 and 19 the accused bought three grammes of digitaline. Of this fifteen centigrammes only were found in his possession. This great diminution in the quantity of digitaline cannot be accounted for by homœopathic practice, for homœopathy fairly carried out repudiates the use of concentrated medicines, especially in appreciable doses. But then are homœopaths honest? The present, moreover, is not the only case in which grave suspicion attaches to the prisoner. It is said that on October 4, 1861, the accused bought fifty centimes of digitaline. Not long after, his mother-in-law, Madame Dubizy, dined in his company in excellent health, but was soon afterwards seized with violent vomitings. He alleged that she was attacked with cholera; nevertheless, on the night preceding Madame Dubizy's decease, he prescribed ten centigrammes of digitaline and twenty-five of hydrochlorate of morphia. In this case, as in that of widow Pauw, a person in excellent health died suddenly of vomitings and purgings, under the eye and care of the accused, who had bought and used a considerable quantity of digitaline, which he could not account for; in each case the accused either neglected to obtain or to follow the advice of other Medical men, and in each there was the absence of any cause which could account for death.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE XV.—MARCH 5.

Anatomy of the Gorilla continued.—The facial portion of the skull is slightly more prognathous and macrognathous than that of the chimpanzee. The jugal arch is considerably stronger and more curved. The palate is longer and narrower. An interesting character (not being an adaptive modification, but a mark of serial degradation) is the late disappearance of the suture between the premaxilla and the maxilla, which remains open up to adult age. In the lower jaw the great depth and massiveness of the rami and the entire absence of any mental prominence may be noted. The body of the hyoid bone forms a more considerable cup-shaped cavity than in the chimpanzee; its greater cornua are well developed, the lesser cornua rudimentary.

The scapula of the gorilla is markedly more like that of the human subject than is the chimpanzee's. The coracoid process is strong and curved. The humerus is longer than the radius; the radius itself has a strong curve. The hand in its fundamental construction resembles that of man and the chimpanzee; where it differs from the latter it is generally in the direction of the human type. The thumb is longer and stronger in proportion to the hand than in the chimpanzee, and the form of the trapezium is more like that of man. The pelvis has the great depth, the obliquity of the upper aperture, the great length of the antero-posterior, as compared with the transverse diameter, the long symphysis pubis, and the eversion of the ischia characteristic of the ape. It approaches the human type somewhat, however, in the great width of the ilia. The femur is somewhat more like that of man than the chimpanzee's. The articulation of the astragalus with the tibia has the same obliquity as in the chimpanzee, but the bone itself is stronger and broader. The calcaneum projects rather further backwards, but retains its narrowness and the single tubercle. The entocuneiform bone has the characteristic ape form. In the proportion of the different regions of the foot there is a slight approximation to man, which is lost, however, in the proportionately shorter hallux. On the whole, though with certain exceptions here and there, where the gorilla departs from the chimpanzee in the character of its limbs it approaches man, while in the skull it comes nearer to the lower apes, so that it is by no means an easy question to decide which of the two animals forms the nearest approximation to man in its osteology. Perhaps the greater relative size of the cranial cavity inclines the balance in favour of the gorilla.

The dentition is essentially the same as in man and the chimpanzee, but deviating further from the former in the immense development of the upper canines, and in the greater relative size of the posterior inferior molars. The milk teeth closely correspond with those of the chimpanzee, as does the order in which the teeth succeed each other, the permanent canine being the last in place.

Our knowledge of the myology of the gorilla is at present very defective, being derived chiefly from Duvernoy's dissection of one individual, supplemented by some original observations of Professor Huxley on the muscles of the hand and foot. Taking them in the same order as was done in the case of the chimpanzee, first, may be considered those muscles of the limbs not commonly found in man and stated to be present in the gorilla. These are the dorso-epitrochlear and the levator

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claviculæ; the scansorius is not mentioned by Duvernoy. 2. Those muscles existing in man, but which have not been hitherto found in the gorilla. The subclavius was only represented by a ligament. The plantaris, extensor primi internodii pollicis, and the peroneus tertius were all absent. The two last appear to be constantly wanting in the apes. 3. Muscles commonly said to be absent in the apes, but which are found in the gorilla. The transversus pedis is powerfully developed, arising by three bundles from the heads of the second, third, and fourth metatarsal bones. The extensor indicis is perfectly distinct, giving no division to the other digits. The extensor minimi digiti goes altogether to the little finger. 4. Muscles which differ from those of man in their origin. The most important of these is the flexor brevis digitorum; the portion which arises from the os calcis gives the perforated tendons to the second and third toes; the remainder arises by two fleshy bellies from the surface of the long flexor tendon. The tendon for the fifth toe is not perforated, but runs to the outer side of the deep tendon. The soleus arises by a single head from the fibula. 5. Muscles which differ from those of man in their insertion. Duvernoy found the flexor pollicis longus represented by a small tendon from the flexor profundus digitorum going to the thumb as in the chimpanzee. Prof. Huxley found the tendon on the palmar surface of the thumb, but on tracing it upwards, it did not appear to join the other flexor, but ended by spreading out in the fascia of the palm, and was partly inserted into the trapezium and first metacarpal bone, so that, functionally, the muscle may be said in this instance to have been absent. In the foot the long flexors have essentially the same arrangement as in the chimpanzee, the flexor digitorum goes to the second and fifth digits, and the flexor hallucis to the first, third, and fourth, with only a slight intermingling of their fibres. The flexor accessorius is well developed, with its ordinary connections. 6. Muscles which are single in man, but divided in the apes. The division of the tendons of the tibialis anticus and extensor ossis metacarpi pollicis, so marked in the chimpanzee, was found in the gorilla not to extend higher than in man.

The gorilla's hand and foot afford through their great size very fine illustrations of the arrangement and action of the interossei and lumbricales. The latter are four in number in the hand, and are inserted into the extensor sheaths as usual; in the foot there are but two. The interossei of the hand agree in the main features of their arrangement with those of the human hand, being double on each side of every finger, the more dorsally placed muscles are inserted into the side of the base of the first phalanx, and the others send their tendons into the extensor sheath, and form the chief extensor of the last phalanx. The interossei of the foot agree on the whole with what has been observed in man and the chimpanzee, though there is a tendency to a division of the muscles, a slight approximation to the arrangement in the hand. The dorsal interosseous muscle of the second and fourth spaces presents the great peculiarity of being divided in the middle line into two distinct muscles, each having a tendon inserted into the opposed sides of the fingers bounding the space. There is also a distinct "interosseus volaris primus," as in the hand of man. On the whole, the muscular arrangements of the limb leave us much in the same uncertainty as the osteology, in reference to the nearer approach to man, presented by the gorilla or champanzee.

The larynx in its general characters resembles that of man and the chimpanzee. Connected with it in the adult gorilla is a system of great cavities, developments of the two laryngeal sacculi, each of which is equally dilated, and produced into large cæcal sacculated pouches, extending all over the sides of the neck in the interspaces between the muscles, from the rami of the lower jaw to the axillæ. As age advances the sacs of the two sides coalesce in the middle line over the trachea, and form an elongated bag, the upper end of which fits into the hollow of the body of the hyoid bone. The use of this immense and complex apparatus is not known.

PARLIAMENTARY.

On Thursday, May 5, the House of Commons went into Committee of Supply on the Army Estimates, commencing at vote 7, £262,216 for Medical services, being a reduction on the original vote of £2000 on account of diets and Medical comforts.

Colonel North called attention to the position of the Medical department of the army, showing that, in accordance with the statements of the Commander-in-Chief, Sir R. Airey, and Sir G. Wetherall, it was undermanned in time of peace. In support of these statements he added that, notwithstanding there were 200 vacancies in the department, and that the age of admission had recently been extended from twenty-five to thirty years, there were only six applicants, the number just previously, when the age was fixed at twenty-five having been only fourteen. He should like to know whether the House and the country desired that such a state of things should continue to exist. Had the Medical officers of the army shown themselves to be unworthy of the service? Such was not the opinion of Lord De Ros, who when examined on a committee which sat to inquire into the subject, stated that nothing could be more creditable than the conduct of those officers; nor of Sir R. Airey, who said, specially in reference to the Crimean war, that he did not think it possible to have a more energetic class of men. That being so, and it being the fact that the condition of the Medical department of the army was such that no men of ability in their Profession would join it, he thought it was time that the attention of the House should be directed to the subject.

General Peel said that if it were true that there were 200 vacancies and only a few applicants, as had been stated, the matter became one of serious importance. When he was Secretary for War, the Medical Warrant of 1858 had been issued, founded on the recommendations of the Sanitary Committee, and carrying every one of these recommendations into effect. Such, he might add, was the satisfaction given to the Medical Profession by that Warrant, that some of the best students became candidates for the service, as he had been informed by Sir B. Brodie and Sir James Clarke. Subsequently there were great complaints that the Warrant had been broken through, and that the question of relative rank had been set aside. He hoped the noble lord the Under-Secretary for War would be able to explain how that had happened, and how it came to pass that the Medical examination for the army, which was intended to be competitive, was now reduced to such a level that it was impossible to get ordinary students to undergo a mere qualifying examination. He had himself accompanied a deputation of Medical officers to his late lamented friend Sir G. Lewis, and he quite admitted that some of the complaints which they advanced might be frivolous; but, then, the committee which had been appointed by the War Office had reported entirely in favour of the Medical officers, and he should like to know why their recommendation had not been carried out.

Mr. O'Reilly expressed his satisfaction at hearing the observations which had fallen from the last speaker, adding that he could bear testimony from experience to the favourable light in which the Warrant of 1858 was regarded by Medical officers, and to the fact that the changes which had been made in it were most injurious to the efficiency of the service.

Sir J. Trelawny asked the noble marquis whether he was disposed to grant a commission to investigate particular evils existing in and near large garrison towns. Infectious diseases might often be prevented as well as cured, and he believed that great social as well as physical benefits might be looked for from such an inquiry.

Colonel Sykes said that on comparing the cost of Medical men, medicines, Hospital corps, and other necessary appliances for maintaining the health of the army, he found that in England it was at the rate of £1 11s. 7d., while in France it was £1 10s. 9d. He believed that to contrast the total numbers with the total cost was the only method of arriving at a sound and just result.

Captain Jervis, referring to the question raised by the hon. baronet the member for Tavistock, said it was one of vital importance. Nobody who had read the reports of the army and navy, or those which had been published respecting our Mediterranean and Indian stations, could fail to be struck with the number of men invalided during their term of service, or prematurely thrown as pensioners upon the country. It was the bounden duty of the Government to institute measures of a remedial character, and if, in addition to the reports in their possession, they wished to strengthen themselves by the

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opinions of a committee or commission, the House, he thought, would gladly afford the requisite facilities.

Colonel Dunne expressed his approval of the good sense shown by the hon. baronet the member for Tavistock in introducing the subject. The matter was one which it was impossible to debate in the house, and yet every man knowing anything of the military and naval services was aware that it lay at the root of their health and efficiency. He was anxious to obtain some information with regard to the purveyor's department, the vote for which seemed to be much larger than was necessary, and the duties of which he was informed could be divided between the Medical staff, the storekeeper, and the barrack-masters.

The Marquis of Hartington said the hon. and gallant member for Oxfordshire had called the attention of the Committee to the deficiency in the supply of Surgeons for the military service, but had attributed that circumstance to the wrong cause.

Colonel North observed that he had not assigned any reasons, not knowing what the reasons were.

The Marquis of Hartington replied that either the hon. and gallant member or the hon. and gallant general sitting below him had connected the deficiency of Surgeons with the failure to carry out in their integrity the recommendations of the commission on which the Warrant was founded. In all essential particulars those recommendations had been complied with, and the Medical officers had obtained every substantial advantage contemplated by those recommendations. In one or two points these had been departed from, but they were hardly of a character to deter any Medical man otherwise desirous of doing so from entering the service. It was perfectly true that in consequence of objections raised by the regimental officers, acquiesced in by the Horse Guards, and sanctioned by the late Lord Herbert, Medical officers, although enjoying the relative rank laid down for them in the Warrant, were not to act as presidents of boards of survey or other boards when one of their number happened to be the senior officer present; but he could not imagine that trifles such as these would make any Medical man hold back who intended to connect himself professionally with the army. The difficulty of obtaining Medical officers might in part be accounted for by the fact that, in spite of the increase of population in the United Kingdom, there was, if anything, for the last few years a diminution in the number of men educated for the Medical Profession. The great steamboat companies, railways, mining and other private undertakings likewise entered into competition with the Government, and offered to Medical men more immediate advantages, as well as the prospect of a more speedy rise in the world, than could be hoped for in the army. He was afraid that if, within the next few years, the demand which had sprung up in this country for members of the Medical Profession should not be met by an increased supply, Her Majesty's Government would have to consider the expediency of offering increased advantages, not in the way of additional rank, but of increased pay. He assured the House that the subject had by no means escaped attention. Within the last few days Earl de Grey had consulted, not only the Director-General and others, but likewise Medical men unconnected with the army. He was not in a position to state the nature of their recommendations, but he could assure the Committee that the subject had not escaped attention, and that measures would be promptly taken to keep up the necessary supply of Medical men. The subject adverted to by his hon. friend (Sir J. Trelawny) was one of great importance, but it affected the navy as well as the army, and ought not to be partially dealt with. It had received the consideration both of his noble friend (Lord C. Paget) and himself, and later in the Session it was his noble friend's intention to propose the appointment either of a committee or commission to inquire into the question. In reply to the hon. and gallant member (Colonel Dunne), he would state that he was not aware of any extravagance in the vote for the purveying service. That service used to be performed partly by the purveyors and partly by the commissariat, but the system was not found to answer during the Crimean war, and the present service was adopted on the recommendation of the Sanitary Commission. If the hon. Member would look at the Estimates he would see that a reduction had taken place in that portion of the vote which was susceptible of reduction. The Medical items were in excess of last year, but that was on account of the New Zealand war.

Colonel North said that officers in the Medical service did not so much complain of the question of rank. What they wanted was the permission to retire after twenty years' service, so as to be able to obtain private practice. The country had a right to expect that when its troops were prostrated by wounds or unhealthy climates they would have the best possible Medical advice. At present there was no less than 200 vacancies in the Medical department. During the Crimean war there was scarcely a family in the country, from the peer to the peasant, that did not mourn the loss of some relative. A committee was appointed in 1856, which reported that the Medical officers had been deficient during the war. Eight years had elapsed and the same state of things existed. If war broke out to-morrow what would the troops do for Surgeons? The authorities were obliged to send Assistant-Surgeons out to India who had only just returned from Canada, New Zealand, or the West Indies. A class of acting Assistant-Surgeons had been appointed who had never before been heard of in this country, and some of the regiments had no Assistant-Surgeons. The country had a right to expect that the Medical department of the army should be placed in the best possible position.

The vote was agreed to.

In the House of Lords on Friday, May 6, the Lord Chancellor brought in a bill for the limitation of actions and process for small debts, to amend the Acts relating to County Courts, and give them a limited jurisdiction in Equity. He described the present state of the law as to the recovery of small debts, pointing out the severity with which the proceedings in the county courts pressed on the poorer classes. The power of these courts to imprison small debtors had been found very injurious in its operation. He proved from the returns laid before Parliament that up to the year 1863 more than 17,000 persons had been imprisoned by the order of the county courts. In many of these cases the sums claimed were incredibly small, 4s., 3s., or 2s., and in one case a man was sent to prison in default of paying the sum of 9d. This power of imprisonment had no limitation but the discretion or clemency of the judge. A man might be confined several times for the same debt. The advantages the present law gave the creditor were so great that, practically, the whole value of the debtor's labour was mortgaged for the creditor's benefit. As a remedy for these evils, he proposed by the present bill to limit the power of imprisonment by a clause requiring the judge to take into consideration all the circumstances of the case. Imprisonment would be ordered only in cases of debt contracted by fraud and false pretences. But that imprisonment would be made a real punishment, instead of a nominal infliction, as it was in some districts. The bill would attempt to assimilate the case of the small debtor to that of the insolvent with greater liabilities by giving the judge power to call all the creditors of a working man together to prove their debts. An order would then be made for the amount to be set apart by the debtor for their payment, the money to be paid into court and distributed by it. A debt contracted with the keeper of an alehouse for intoxicating liquors consumed on the premises would not be recoverable by process under this Act. The second part of the bill invested the county courts with a limited equitable jurisdiction in cases involving sums too small to bear the expense of an application to the Court of Chancery.

Lord Cranworth reserved his opinion of the bill as a whole, but admitted it was most desirable to get rid of the system of imprisonment for debt by these courts. The difficulty was that imprisonment was often the only means of compelling the payment. To abolish the power entirely they might have to make debts of very small amount debts of honour, not recoverable by legal process at all.

The bill was read a first time.

We do not think the Lord Chancellor's bill if it become law will injuriously affect the Profession of Medicine; we are happy to believe that there are very few Medical men who would not far rather lose a debt than imprison the debtor. Should the bill pass it will deal a blow at the small credit system in all businesses and professions, and in this respect it will probably prove a real benefit to those Medical men who practise chiefly amongst the artizan and labouring-classes. Not only will the working-man have more ready-money because he pays ready-money, but the very habit of doing so will lead him to regard debt as an incubus and a degradation.

In the House of Commons, on the order for going into a committee of supply, Mr. M'Evoy moved the following resolution:—"That Her Majesty's Government should now adopt the recommendation of the select committee of 1858, which 'recommended her Majesty's Government to take into

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consideration the claims of Ireland to a grant of the half-cost of Medical officers in unions, with the view of providing for the same in future as is now the practice in England and Scotland.'"

Sir R. Peel insisted that no good ground had been assigned for the relief sought, and recommended the withdrawal of the motion.

The motion was supported by Mr. Monsell, Colonel Dunne, Mr. Bagwell, Mr. Hennessy, Sir H. Bruce, and Lord J. Browne; and opposed by Mr. Peel and Sir G. Grey.

Upon a division the resolution was negatived by seventy-three to fifty-eight.

On Monday, May 9, in the House of Commons, Lord Proby, Controller of the Household, brought up a message from the Queen, stating that in compliance with an address of the House, her Majesty would appoint a Royal Commission to inquire into the subject of capital punishment.

Mr. Dillwyn moved for a select committee to inquire as to the most suitable arrangements to be made respecting the Patent Office Library and Museum.

The motion was carried by twenty-one to sixteen.

Mr. Peel obtained leave to bring in a bill to enable her Majesty to grant a lease for 999 years of the building known as the College of Physicians, in Pall-mall East.

In the House of Lords on Tuesday, May 10, Lord Ellenborough withdrew the Sentences of Death Bill, in consequence of the inquiry pending in the other House of Parliament.

FROM ABROAD.—BAD SANITARY CONDITION OF AMERICAN CITIES —KAROUBA AS AN ARTICLE OF DIET— PRODUCTION OF SEX.

By a stupendous effort the United States Government, or rather the public coming in aid of the Government, has effected a wonderful improvement in the sanitary condition of the army; but, according to the accounts which reach us, the great cities of the Republic still continue in a woful plight in this respect. The Medical Society of the District of Columbia has just issued a report on the sanitary condition of the cities of Washington and Georgetown, which contains the most alarming statements. We have heard much of the epidemic of small-pox, which has prevailed with much virulence in the former city; and when we peruse the statements here given of the utter neglect of all sanitary appliances, we cannot be surprised at any disease assuming an epidemic and virulent form. Great overcrowding, the want of provisions for cleansing and drainage—putrescible materials accumulating in many of the streets to the depth of twelve inches—the imperfect burial of the numerous horses that have died, and various other horrors, have hitherto, and will again, generate epidemics of typhoid fever, from which the city has not, indeed, since 1861, been free. The Committee has proposed some stringent regulations and active supervision, under the operation of which much may be hoped for. New York, though in not so bad a plight, is in an unsanitary condition which would be thought perfectly disgraceful in Europe, and political considerations are at present likely to stand in the way of its improvement. A committee has been endeavouring at Albany to get an Act passed for improving the sanitary jurisdiction of the Empire City, but it reports to its constituents that its task is a hopeless one, for it "found that the Democratic members of the Legislature regarded the proposed Act as aimed at their friends, and that the Republican members dreaded the passing of so sweeping an Act, that might be construed into unjustifiable interference with city affairs, and might injure their prospects in the next Presidential election. They were informed that the City Inspector had raised large sums from his employés to defeat the measure. They also found that in the opinion of many members of the Legislature the death of five thousand citizens was not so serious as the possibility of a Presidential defeat." At Chicago, too, described as the greatest slaughtering yard in the States, the want of sanitary provisions is felt in the prevalence of erysipelas, variola, puerperal diseases, and fever. The stench arising from the offal and refuse of the great slaughtering establishments, which also contaminate the water, is fearful.

M. Prevet has recently made some communications to the Academies in reference to his attempts at introducing *karouba* as an important article of alimentation. A leguminous plant, which especially thrives on the shores of the Mediterranean, the *ceratonia siliqua*, produces a pod, the beans (*karouba*) of which form a common article of nutriment in Algeria, Italy, Spain, and Egypt, but which are unknown in France except to botanists and chemists. Individuals and animals fed upon it in these countries exhibit all the signs of good health, in place of those indications of defective nourishment so often met with among the poorer classes of large cities. M. Prevet, as the result of numerous experiments, has succeeded completely in the torrefaction of the bean, and has produced a substance of most agreeable odour and taste, infinitely superior to the chicory so much used by the lower classes in France, and, in some respects, to be preferred to coffee itself. It does not stimulate like this latter substance, and is thus better fitted as an article of diet for women and children; while, as its nutritive properties are very considerable, it is well suited where reparative tonics are indicated. It can be sold at a very low price.

M. Thury, of Geneva, has of late propounded the doctrine—founded, indeed, upon some practical observations—that the male sex always is produced when fecundation is operated upon ova of complete maturity, while females result when ova of a less advanced maturity are fecundated. Thus, by serving the cow with the bull at the commencement of the rut, we may always produce females, serving at the middle and terminating periods of the rut-producing males. This is so absolutely the case that the sex may be thus produced at will. M. Coste believes that this theory can be tested in the fowl, in which several eggs fecundated at the same time by a single impregnation arrive only successively, and in the order in which they are placed at maturation. He has therefore devised a series of investigations in this sense, which will be duly reported, and in the meantime mentions the results of one of the experiments. Supposing M. Thury's theory exact, all the first eggs laid should be male, all the latter ones female, the order not being inverted. Well, a fowl, separated from the cock at the commencement of her laying, laid five eggs within the space of eight days, and the sexes were produced in the following order:—Male, male, female, male, female. This interposition of a male between the two females is contradictory to the theory; but whether this constitutes a mere exception or a radical objection, further investigation must show.

M. Guérin observes (*Gaz. Med.*, May 7) that the matter cannot be so easily disposed of, inasmuch as facts have shown that fecundation of the same egg may take place on several occasions, and perhaps through several males, or that it may remain latent, so as not to induce development of the embryo until long after the fecundating principle has been deposited. A remarkable example of this came under M. Guérin's own notice. Some black turkeys had been trod during a whole season by some white turkeycocks belonging to an entirely different race. At the end of the autumn the turkeys were removed to another farm where there were no black cocks. In the spring, one of the black females, which had cohabited during all the preceding season with white cocks, laid some eggs, whence issued three white turkeys—a male and two females. Her other eggs, to the number of twelve or fifteen, produced black male and female turkeys. This fact shows that it is impossible to appreciate the degree of maturation or development by the date of fecundation; that the fecundation may go back long prior to the commencement of the development of the embryo; and that several impregnations may contribute to the fecundation of the same egg.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the General Monthly Meeting held on Monday, May 9, 1864, William Pole, Esq., M.A., F.R.S., Treasurer and Vice-President, in the Chair, the following gentlemen were elected Members of the Royal Institution:—The Hon. Henry Frederick Cowper, George Clive, Esq., M.P., Lieut.-Col. George Palmer Evelyn, William Dell, Esq., and William Graham, Esq.

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THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF THE POTTERIES, STAFFORDSHIRE.

(Continued from page 520.)

At one time in its history Newcastle was famous for the manufacture of hats, but at the present moment this trade has fallen from it, and has hardly been replaced by any staple manufacture. There are now in the town 318 males and 18 females employed in pottery work; 289 males are occupied in the iron manufacture; and 996 males are miners. The divisions of the population of the various districts in reference to occupation will be best gleaned from the tables subjoined:—

Newcastle-under-Lyme District.

Total population	13,196	
Professional class	339, or	2·6 per cent.
Domestic class	5,239 ,,	39·7 ,,
Commercial class	262 ,,	2·0 ,,
Agricultural class	1,547 ,,	11·7 ,,
Industrial class	5,117 ,,	38·8 ,,
Indefinite and non-productive	692 ,,	5·2 ,,

Wolstanton District.

Total population	27,985	
Professional class	404, or	1·4 per cent.
Domestic class	10,796 ,,	38·6 ,,
Commercial class	738 ,,	2·6 ,,
Agricultural class	814 ,,	2·9 ,,
Industrial class	13,801 ,,	49·4 ,,
Indefinite and non-productive class	1,432 ,,	5·1 ,,

Stoke-upon-Trent District.

Total population	37,460	
Professional class	719, or	1·9 per cent.
Domestic class	13,342 ,,	35·6 ,,
Commercial class	1,403 ,,	3·7 ,,
Agricultural class	1,033 ,,	2·8 ,,
Industrial class	19,367 ,,	51·7 ,,
Indefinite and non-productive class	1,596 ,,	4·3 ,,

Social Facts in the Potteries.

The social and physical conditions of the lower classes in the district of the Potteries are peculiar. Provisions are not limited, and the quality of the food is good as compared with that obtainable in many other manufacturing districts. Wages are also very good. Amongst the potters a good workman will earn from thirty-three to thirty-six shillings a-week, which, when reduced by the payment say of seven or of eight shillings for boys, would leave a handsome margin; indeed, as Mr. Scriven showed some years ago, the wages of the potters are considered the best of any staple traders in the kingdom.

There are thus many advantages pertaining to the potters; but, in spite of these, no one can pass even a few days in the district, without being assured that there is something wrong. The men are unhealthy in aspect, the women cadaverous, the children small, stunted, and, though not mis-shaped, ill-shaped. Dr. Arlidge, of Newcastle, than whom there could not be a more competent judge, thus describes the potters as a class:—

"The potters as a class, both men and women, but more especially the former, represent a degenerated population, both physically and morally. They are, as a rule, stunted in growth, ill-shaped, and frequently ill-formed in the chest; they become prematurely old, and are certainly short lived; they are phlegmatic and bloodless, and exhibit their debility of constitution by obstinate attacks of dyspepsia, and disorders of the liver and kidneys, and by rheumatism. But of all diseases they are especially prone to chest disease, to pneumonia, phthisis, bronchitis, and asthma. One form would appear peculiar to them, and is known as potters' asthma or potters' consumption. Scrofula, attacking the glands, or bones, or other parts of the body, is a disease of two-thirds, or more, of the potters. The men are more subject to chest disease than the women. The latter, employed in 'dipping' and in 'printing,' suffer most. Those engaged in painting, burnishing, and in the ware rooms least. The most sickly men are the hollow-ware pressers, firemen, and dippers. That the 'degenerescence' of the population of this district is not even greater than it is, is due to the constant recruiting from the adjacent country, and to intermarriages with more healthy races."

Except by those who have a prejudice for supporting and sustaining all causes of disease, these painful facts are readily admitted. But the question is, why should the physical condition of the people have thus degenerated? The answer to this question seems now to be considered as in the main settled. It is assumed that the evils are traceable in great part to the occupation, and at this moment the Pottery district is attracting much attention politically, owing to the circumstance that a proposition is before the Legislature to apply the provisions of the Factory Act to the young who are employed in the earthenware manufacture.

The pottery manufacture of Staffordshire has been the subject of three inquiries under the sanction of Parliament within the last twenty-two years with reference to its effects upon persons employed in it. In 1841, Mr. Scriven made his report to the Children's Employment Commissioners, "upon the physical and moral condition of the children labouring in that important district." In 1860, Dr. Greenhow, by direction of the Medical Officer of the Privy Council, and continuing an inquiry of the previous year as to the "local influences which occasion in particular districts of England an habitually high rate of mortality from particular diseases," presented his report upon "the special causes which develop pulmonary diseases, with excessive mortality in the pottery district of Staffordshire." And, in 1862, the Assistant Commissioner of the Children's Employment Commission, Mr. Longe, commenced an inquiry. The principal facts remained as recorded in the evidence collected by Mr. Scriven, and Mr. Longe has confined himself to exhibiting the general features of the subject, and to substantiating the facts as they exist at the present hour.

I shall refer at length, in speaking of the sanitary conditions of the Pottery district, to the details of the report of the last Children's Employment Commission, from which the above information is taken. But I may add this much here, that the evidence collected, considered as a whole, is most conclusive in proving that overwork in childhood is the main cause of that physical degeneracy to which Dr. Arlidge has so ably, earnestly, and fearlessly directed attention. Shall we wonder, indeed, at the degeneration when we read such facts as the following, collected by Mr. Scriven:—

"The class of children whose physical condition has the strongest claims to consideration is that of the 'jiggers' and 'mould-runners,' who by the very nature of their work are rendered pale, weak, diminutive, and unhealthy. They are employed by the dish, saucer, and plate makers; their hours are from half-past 5 in the morning to 6 at night, but in numberless instances they are required to labour on till 8, 9, or 10, and this in an atmosphere varying from 100 to 120 degrees, all these extra hours being occasioned, nine times out of ten, by the selfishness or irregularities of their unworthy taskmaster. The men work by the piece; however much there may be on hand to accomplish, they seldom or ever work after Saturday noon, and often not before the following Tuesday or Wednesday morning, but spend the hard earnings of the previous days idly and unprofitably. Once gone, they again 'buckle to,' and work like horses. Each man employs two boys, one to turn the jigger or horizontal wheel from morning to night, the other to carry the ware just formed from the 'whirler' to the hot-house and the moulds back. These hot-houses are rooms within rooms, closely confined, except at the door, and without windows. In the centre stands a large cast-iron stove heated to redness, increasing the temperature often to 130 degrees. I have burst two thermometers at that point. During this inclement season I have seen these boys running to and fro on errands or to their dinners without stockings, shoes, or jackets, and with perspiration standing on their foreheads, after labouring like little slaves, with the mercury 20 degrees below freezing. The results of such transitions are soon realised, and many die of consumption, asthma, and acute inflammations. It is admitted on all hands that their work is the most arduous and fatiguing of all others. It will appear that a good workman can, and frequently does, make eight score dozen saucers a week, each dozen counting thirty-six pieces. Each piece is carried twice to and fro, and weighs (mould and bat) 2 lbs.; but as two pieces are carried at the same time, they will count but as one, and as 4 lbs. on every trip.

Let us first calculate the weight absolutely borne, then the distance run barefoot: eight times 20 is 160; 36 times

160 is 5760 pieces of 2 lbs. each, carried in six days of only 72 hours, which, multiplied by four (the weight of two moulds and bats), gives 23,040 lbs. Divided by six, the number of working days in the week, will give 3840 lbs. a day of 12 hours, without deducting the so-called one and a-half hour for meals, which, by the way, they never get.

The average distance from the whirler to the centre of the stove is an honest 7 yards; the same back will make 14; 14 times 5760 yards gives 80,640, or 45 miles 1440 yards in a week; which, divided by six, gives 7 miles 1120 yards per day. Besides this, they have to mount one, two, or three steps to place the pieces upon the shelves. But this is not enough, their master requires them, while he is taking his pipe or his pot, to wedge the clay in the yard, collect the half-dried pieces from the shelves; again, to come half an hour or more before him in the morning, to get coals in, ashes out, and sweep and make ready for him the room, or anything else that may be wanted, and probably has to walk a mile before and after his work. If the master's propensities prompt him to loiter away the earlier days of the week, he works the extra hours on middle days to make up his losses; thus the child—the almost infant child—is taxed with three or four hours' increased exertion, to the sacrifice of his health, his morals, and every domestic comfort that he would otherwise enjoy, and this, without the least remuneration, as in every case his wages are the same, whether he makes the twelve hours or sixteen.

The evil is lamented by the honest workman, by the children, by the parents, and universally by the manufacturers, who acknowledge their inability to correct it themselves without incurring the risk of exciting tumult, and thereby occasioning some delay in the execution of their orders, as the processes are so linked in with each other, that by losing one set of men the others are rendered useless.

Should a remedy be suggested, the children would have reason to hail the day of their emancipation from toil little removed from slavery."

Mr. Longe adds the following summary of the hours of work in various departments of the pottery works, and in the large and important branches in which the largest number of children are employed at the present time:—

"The usual hours of work throughout the district are similar to those stated by the employers in the tabular forms. They are generally from about 6½ a.m. to 6½ p.m. On Saturday work ceases in some manufactories at 2 p.m., in others at 4 p.m. In some manufactories work is continued to 7 p.m. on Fridays. These hours, however, are frequently exceeded in the case of pressing orders, on which occasions children as well as adults are employed to 8 or 9 p.m.; and sometimes, but I believe, very rarely, through the whole night. Some of the children are also liable to be worked beyond the usual hours through the irregular habits of the men for whom they work. . . . The above description shows the ordinary employment of these boys; they are, however, liable more than any other class of children to be worked beyond the regular hours. It is still too frequent a practice among the flat-pressers, as with other potters, to waste the first days of the week in idleness or the beerhouse, and then work themselves and their boys until 8 or 9 o'clock on Thursday and Friday in order to recover their lost time."

In my rounds through the Pottery districts I found but one opinion—an opinion in which the workmen shared—and that was that the interference of the Legislature was absolutely necessary for the purpose of effecting proper and permanent relief. Self-government as a practical method was assumed to have failed; masters could not make rules to please the men; the men could suggest no improvements that were satisfactory to the masters. Hence they all ask for a law, and probably they will soon have their desires gratified.

Two methods have been suggested for the consideration of the Legislature. The masters generally, and the Employment Commissioners are in favour of what is known as the "half-time system," by which children would be admitted to labour at 8 years, but would spend a portion of time in school and in rest. The workmen generally, on their side, wish—1. That no one should be admitted to labour until he or she shall have attained the age of 10 years. 2. That as a qualification for admission to labour, each youth should be obliged to bring a certificate of education. 3. That actual labour per day should be confined to nine hours and a-half.

I have confined myself thus far purely to a brief description of the Potteries. I hope the narrative has been sufficient to lead the reader who has not visited the locality to feel that he knows enough of it to be interested in it. He will then move with me the more easily into the North Staffordshire Infirmary, the Hospital of the Potteries, which comes next under notice.

THE DEBATE ON EDUCATION IN THE MEDICAL COUNCIL.

*** Owing to an unexpected failure of our reporters, we are unable to give the speeches we promised, and borrow these of Professors Parkes and Sharpey, delivered on Saturday, April 30, from the *Lancet*, in which they are reported at length:—

Dr. Parkes: I am very happy that Dr. Christison has given me the opportunity of explaining to him and the other members of the Council some of the reasons why it appears necessary that there should be an entrance examination of gentlemen about to enter the Army Medical Service; and I believe this matter will be found to be most intimately connected with Medical education, and, therefore, in explaining it I shall not be at all out of order, nor infringe on the business before the Council. I wish it to be clearly understood, that in the remarks I am about to make I am in no way referring to those gentlemen who have passed the examination for the Indian service and the army, and are now serving in various parts of the world; but I must say this, that in every examination we have had in the Indian service and the army, during the ten years I have been examiner, and during which time very nearly 800 candidates have come before the Examining Boards, there have presented themselves, on every examination, a number of men so imperfectly prepared in the practical parts of their Profession, that we found we could not conscientiously admit them into the ranks of the service. I am aware, Sir, that this may seem a strange assertion to the members of the Council, particularly when we consider that every one of those gentlemen brought forward the double qualification; but, by the permission of the Director-General, I have brought down some documentary evidence, that will be satisfactory, I believe, to every member of this Council. How, Sir, can we pass a man into the service who knows so little of anatomy as this—that he does not know the radius from the ulna, the os calcis from the astragalus—that he believes the œsophagus is in front of the arch of the aorta, and that the aorta may rise from the right ventricle? In Surgery, Sir, I do not think Mr. Syme would allow us to take a man into the army who gave an answer of this kind,—who, when asked what he would do for a partly-divided, or completely-divided, artery, replied, and in writing too, not in the hurry of oral examination, that he would immediately amputate the limb above the injury? I do not think Mr. Syme would approve of a man who, when asked how he would treat an incised wound of the knee-joint, after suggesting various remedies, replied, that if the inflammation still went on he would make large incisions into the joint. I do not think any one would wish to pass a man who, when he was asked, "what would you do if, after delivery, a woman had her breasts unpleasantly full of milk?" would answer, "I would pass a trocar into the breast." Then, in examination upon Medicine, I cannot pass a man who cannot diagnose a single case of phthisis, or who, when he is taken to the bedside, and there is a board at the head of the bed with the name of the disease upon it, "aneurism of the aorta," with bulging pulsation, shrill and loud murmur, who knows it is a case of aneurism of the aorta, who takes twenty minutes to examine the case, and half an hour to write down what he can tell about it, and cannot put down a single symptom or sign of aneurism of the aorta; nor can I pass a man conscientiously, as a man well up in the practice of Medicine—a man who has been two years at a London School of Medicine and one year at a Scotch School—who tells me that all that time he has never once heard that the term "scabies" is applied to a disease called the itch. Then, Sir, to cite some few more instances in what we call natural history: (and here I should have liked to have passed these papers to Dr. Christison. I will not do so; but I know that on these points he will feel particularly interested, for I know that for years Dr. Christison has in his lectures most properly called attention to the subject; and I must say the Edinburgh men have always given correct answers on these points, and in consequence have directed particular attention to the article of diet. And I am sure there can be no more important subject for the study of the Medical student than digestion and diet, in these days when

every man in the country is talking about diet and knows a great deal upon the subject:)—here is an answer given by an Englishman, not a Scotchman; a man at a first-rate London school; a man who had passed his examinations as a Surgeon and Apothecary. The question is this: "Mention the principal heads under which alimentary substances may be arranged, and give one or two instances of each." Nothing can be more simple: it is a question that is put in class examination. I will read the answer of this gentleman, who, I need not say, did not pass into the army:—"The division is into the nitrogenous and the non-nitrogenous aliments: these may be subdivided into albuminous, fibrous, caseous, and gaseous. An example of the nitrogenous is, all vegetables; of the non-nitrogenous, all meats, including carnivora"—carnivora being wrongly spelt. "Of the subdivision albuminous, perhaps the most common example is the hen's egg; of the fibrous, the meat of the ox or sheep. Veal and pork, I believe, do not contain so much fibrin. Of the caseous, milk and cheese; of the gaseous, soda water." I will not pursue these examples, but I have plenty of them here; and I can assure you that if we had kept all the documents—which we have not done—I could cover half the table with extraordinary answers. And I beg the Council to believe that I am not exaggerating; I am really only citing instances which occur at every examination. Dr. Stokes said very justly yesterday, that the object of examination is to determine what a man knows, and what he does not know. Now I have found not the least difficulty in ascertaining what he does not know, but it surpasses the skill of Dr. Stokes and myself to discover sometimes what he does know; and the only words in which I can sum up the whole subject are the emphatic words of my colleague, Mr. Paget, in one of these memoranda on oral examination, when, after endeavouring for a long time—and an extremely weary work it is—to get something out of a man, to ascertain whether he knows anything at all about his profession, he was obliged to sum up the whole result of his examination in these emphatic words: "Dull all over." And that, Sir, is the character of this class of men. I wish again to repeat, that I am not referring to the men who have passed into the service,—many of whom have passed most creditable examinations,—but men whom I hope we never shall see admitted into the public service. But I come to this point,—and I hope the Council will trust me when I affirm it as a matter of most perfect truth, and if I were permitted to show these papers, I could convince every one sitting at this table,—that the Medical corporations are admitting a number of men into the Profession who cannot practise their calling with safety to their patients. Dr. Stokes also remarked yesterday, and very justly, that the object of the examination is, not to determine whether a student shall be on a level with the examiner, but to determine whether a man can be safely let out into the world. That object of the examination is not fulfilled; and I mean to say there is hardly any of the great Medical corporations that has not sinned in this matter. And now, Sir, I bring the point to this issue. As long as the Medical corporations allow men to pass into the Profession who cannot be allowed, without danger to the lives of the patients, to treat the persons who come to them for advice, so long must the Army Medical Department institute an examination for itself. It must protect itself. And I do entreat this Council not to urge upon the Government, by suppressing that examination, a course which the Government cannot attend to, or, if it does attend to, can do so only upon the chance of lessening the welfare, diminishing the health, and even imperilling the life of the soldier. And here I may allude to an argument brought forward by my colleague, Dr. Maclean. In the Civil Service, when a man goes into practice, there is a great check upon him. The civilian can employ whom he likes. A Practitioner has to pass through a dreary time of waiting, which perhaps improves his knowledge, or tests his capacity. He is subjected also to the supervision of his Professional brethren. But in the army it is quite otherwise. You select a set of men, and give them absolute control over the health of soldiers. Soldiers are compelled to go to a particular Medical officer. Will you, then, run the risk of diminishing in any way for the soldier the guarantee that the Medical officer who is put in charge of him is a competent person? I believe, Sir, it is impossible that this Council can come to any other conclusion than that the Army Medical Department must enforce its Medical examination. But let me pass on to another point. I can conceive that Dr. Christison will say this—"However much it may be desirable to institute an entrance examination for men who have already passed examinations at Colleges, still this examination must be in practical subjects. It must be in subjects which will test their powers as Practitioners." And on this point I may say that I in a great measure agree with Dr. Christison. But then, you understand, this is an objection to the details of the examination for entrance into the service, not the principle of the examination itself; and I am quite certain that if Dr. Christison or Mr. Syme, or any member of this Council, could make any suggestions as to the details of the examination for entrance into the army, I can answer for it that the Director-General and the Secretary of State would give the greatest possible attention to them. But let me refer to the kind of examination we have instituted, and in doing so I must diverge for a moment to bring before you some points connected with the Army Medical Service. Let me ask the Council this—How is the army to be officered with Medical men? There seems to be only three ways. First of all, a certain number of men may be nominated—that is to say, we may return to the old system of patronage. Now, is the Council prepared to recommend a return to that system, in which a man is brought into the Medical service of the army, perhaps, to oblige a lord, or subserve Parliamentary interest, or gratify private friendship, or it may be even to propitiate a court milliner? And I think I can refer to a member of the Council, who knows that in saying this I am not speaking beyond bounds. Are we to return to such a system as that? And even if we do return to that system, the army must still retain its entrance examination. But I do not believe for a moment that the Council will recommend a return to that system; and if it does recommend a return to that system, I do not believe the recommendation will be responded to by the Profession at large. A number of appointments may be given to various colleges and universities, and you may say, "Select your men, and send us up good men." That plan is one that has been carefully considered; it is one that requires the greatest possible supervision. In many respects it is one which it is extremely difficult to work out. Can we be sure that these colleges will do their duty? Can we be sure that, doing their duty now, they will do it ten years hence? Can you be sure that private interest will not operate? Even then an entrance examination must be required, in order to check the men that come up from the various colleges. Seeing then, that the various Licensing Bodies have passed men into the Profession that never ought to be in the Profession, can we be justified in supposing that they will always choose men who are fit for the service? Therefore, that system is not a good one. Then we come to the system at present in force—the system of open competition, in which every man, no matter what his country, no matter what his religion, no matter what his degree, so long as he has a legal qualification for the practice of Medicine and Surgery in the United Kingdom, is admitted to serve his country, if he can prove that he is a better man than those who come up also to serve their country; and I believe that is the system which is considered by the Council and the Profession at large as the proper system; and I hope no resolution will pass the Council to-day that will have the effect of diminishing the confidence of the Government in that system. But this I will say, that I hope this Council will not separate without, I will not say a recommendation, but an order to the various Licensing Bodies, to see that they do not pass men into the Profession who are not capable of practising it; and an indication that they will take immediate steps to see that the Licensing Bodies do their duty in this particular. I will now, Sir, pass on for a moment to the details of our examination. Our examination consists of these four parts, the details of which can be altered at any time. It consists of an examination in natural history, in anatomy and physiology, in Medicine, and in Surgery; and, in mentioning the details of this system, I must just advert for a moment to the time this system was commenced. It was just ten years ago, in the time of the old East India Company; and it was the fact of its being an East India Company that determined that a natural history examination should be instituted. And for this reason. There are in India a number of appointments in which a knowledge of natural history is required, such as the curatorship of gardens, the curatorship of forests, and travelling naturalist expeditions. All these were filled by Medical men. Now, however, I am sorry to say, the Medical service does not appear to be able to furnish the men who are capable of filling some of these appointments. The Indian Company said, "We will institute an examination in natural history, for these reasons—first, because the examiners will be able to point out to us the men capable of filling these posts," etc.; and it might be supposed that the Indian Company, placing into competition such admirable appointments—and,

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in spite of what has been said about that service, I mean to say there is no service in the world like the Indian service—would consider that these men would be led to study natural history for the sake of getting these valuable appointments. I may mention another reason. There have been, as we know, great botanists and geologists in India; but it cannot be denied that during the century we have held India the Medical Profession at large has not communicated that amount of information to our knowledge of natural history that might have been expected from it; and the Indian Company were extremely anxious to cultivate among their Medical officers a knowledge of this subject; therefore they wished to devise means for increasing the knowledge of natural history, and they felt that, as it is a great guarantee for general professional knowledge as well as general intelligence that a man should be acquainted with some other sciences besides those which strictly belong to his profession, it would be a good thing to see, if possible, that the men entering their service made the study of natural history form part of their general training. These are the reasons why the examinations were instituted; and when the army Medical officers were ordered to be placed under separate examiners, it seemed to Lord Herbert desirable that the plan should be continued. For some years, however, there has been really no examination in natural history. Dr. Hooker, after trying to work this examination as well as possible, and for the first few years sending out men who were perfectly capable of fulfilling some of the duties to which I have referred, found gradually, and especially during the last few years, when such constant attacks were made on this part of the examination, that it was absolutely necessary to drop the special examination in natural history; and if the members of the Council will take the trouble of looking over the questions (I will tear off the answers) they will find that Dr. Hooker's examination has been an examination in Materia Medica and botany, and those sciences which are not only applicable to Medicine, but which any really educated man is expected to know. But there has been really no examination in natural history for many years; and this I will say, and I wish to be clearly understood by the members of the Council, that no man has been rejected for natural history in that examination; that in no single instance has a good Physician and Surgeon, provided there are vacancies, not passed into the service. It is very common, I know, for the men to say, "I was rejected for natural history," just as in the University of London, when a man is rejected for his education, he says he was rejected for logic and moral philosophy; but I do not know a single case in which a man has not passed merely on his pure Professional merits. Examinations were ordered in anatomy and physiology. You will find it is the anatomy of the Surgeon and Physician, not the anatomy of the schools, in which the candidates should be prepared to pass an examination. The questions in anatomy are such that Mr. Syme would find no difficulty in at once passing upon, because he is dealing with them constantly. I assure you that if you look through the questions in anatomy and physiology, you will find that they deal entirely with those departments of anatomy which refer especially to Medical and Surgical practice. So again, with the physiological branch. You will find that the questions have an immediate bearing on Medical and surgical practice. I do not deny that a question of high physiology may not be introduced, in order to give the best men an opportunity of showing themselves. If we did not put in some questions which are necessary in order to distinguish between the best men, how should we find them out? With regard to medicine and Surgery, therefore, I will only say this: we were directed in the first instance by the authorities to make the examinations as practical as possible, and we have done so. In our written examinations we have made the questions, as far as possible, practical; and in looking over Mr. Paget's questions and mine, I think you will see that this has always been borne in mind. Never in Surgery has Mr. Paget asked a question which can be said to pass into the transcendentalism of education. Then, Sir, we instituted practical examinations, in accordance with the wishes of the authorities, and very high encomiums indeed have been passed on the practical examinations. I have thought much over the subject since it has been under the consideration of certain members of the Council, and I do not, after considering the subject in all its bearings, see how we can improve, in practical points, the examination in Medicine and Surgery. At the same time I would remark that I am sure I can answer for the examiners in Medicine and Surgery that they will pay the greatest attention to any suggestions that can be made. So much, then, for the details of the examinations, and so much, generally, for the subject of the Army Medical Department, in which I hope I have shown—first, that there must be an entrance examination; secondly, that the present system of competitive examination is the best, and possibly the only one that can be adopted. Having said thus much, Sir, allow me to say a few words upon the larger question of Medical education—a question which I view by the light of very considerable experience in Medical examination, and very considerable experience in tuition, both in the case of students in the course of their studies and in the case of gentlemen when they have passed through their course of studies; and I cannot say that I agree with what has been said here, that the present system of Medical education is satisfactory. In chemistry, for example, only to cite an instance, I cannot think the present system satisfactory when I find that in India there is a constant failure of justice because within hundreds of miles there is no man to be found who can make a simple chemical examination in a case of poisoning; when I find that for years in that country the army at various stations have been drinking impure water, because no man could be found who could apply a simple chemical test to ascertain that impurity. I cannot think the examination in anatomy is satisfactory when I find that many men come up for our examination who are extremely deficient in some of the rudimentary points, such as the knowledge of the formation of a skeleton—that very important point without which no man can be a good Physician or Surgeon. I can appeal to my colleague, Mr. Busk, that there is a remarkable ignorance on the part of men who present themselves—men who in many respects are very well educated. I cannot conceive the teaching in Medicine and Surgery satisfactory when I see such results as these—that men not only cannot very frequently, as I know is the case, write an intelligible report of a case, but cannot put up a fractured limb, and cannot perform such an operation as passing a catheter without danger to the person operated upon, and this even in the case of men who are well educated, and who will be eventually extremely useful practitioners. I cannot conceive, then, that the state of Medical education is satisfactory. And the question is—not to occupy the Council too long—how this Council may deal with what I consider a very unsatisfactory state of things. And I believe the Council can deal with it in this way, and in this way only. They must deal first with the examinations. They must see that these are such as they should be. I do not demand a high standard of examination. I do not demand anything more than that in the examinations it shall be seen that a man is not dangerous; if possible, that he should be gifted with such knowledge that will enable him to do good to the patients he is called upon to treat. And then, Sir, when the examinations have been dealt with, I think the next business of the Council should be to indicate in general terms those things to the licensing bodies and great Medical Schools which, in the opinion of the Council, require consideration, and possibly reformation; leaving it for the great licensing bodies and Medical schools to debate the question, and see how the improvement may be best carried out. But on the question of examinations, Sir, I will say this: that I am convinced that no good will be done until the Council devise a scheme by which there can be a complete supervision of them. And that is what we should do at this meeting. We should not separate before this is done; or, if we cannot now devise a scheme for complete supervision, we should commence a process that will lead eventually next year to complete supervision. Therefore, Sir, I am prepared to move, when the proper time comes, the following amendment, which will embody the points to which I have just referred:—"That the Registrar be directed to write to the several licensing bodies requiring them to forward to the Council an exact statement of the nature and extent of the examination or examinations (written, oral, or practical,) to which candidates for their licences or diplomas are subjected, and of the rules and standards of knowledge which are followed in the granting of licences. That the Registrar be also directed to write to the several licensing bodies, informing them that the Council does not at present intend to suggest any alteration in the Medical curriculum, or in the general arrangements of Medical teaching, but that the Council directs attention to, and requests the opinions of the Medical corporations on, the following points:—

"*a.* The desirability of increasing the amount, and rendering more definite the kind of practical instruction in chemistry, Anatomy, Medicine, and Surgery, and of making the final examinations a better test of such practical knowledge than they now are.

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"*b.* The desirability of representing to the Medical schools the importance of directing the studies of the future general Practitioner entirely in the manner best suited for the requirements of general practice, by teaching him thoroughly the groundwork of his Profession, instead of requiring him to obtain an imperfect knowledge of many things which are less useful to him, and, whenever practicable, by making the student work for himself, instead of obliging him to attend a large number of lectures, which are often imperfectly understood and dimly remembered.

"*c.* The question whether, by a re-arrangement of the courses of lectures, by omitting second courses, and by making the yearly Medical session consist of two four months' courses, with one and three months' interval between them, the several parts of Medical education would not be better taught than by the present division into courses of unequal length.

"*d.* The desirability of the Medical schools enforcing good class examinations, not as a substitute for the final examinations, but as a means of testing whether the student has mastered the subject before him, without which he should not be permitted to pass on to the next subject laid down in the curriculum."

Dr. SHARPEY could confirm what Dr. Parkes had said as to the extreme insufficiency in point of practical skill of some of the candidates who present themselves for examination for the Army Medical Service. Upon the general question of Medical education, he gathered from the course of the debate that the best plan to pursue would be to endeavour to arrive at some general resolutions which should embody the collective opinion of the Council, and then issue recommendations, leaving the details to be settled by those who are charged more immediately with the conduct of Medical education. Different modes of conducting Medical education prevailed in different parts of the kingdom, and some persons had urged the Council to establish uniformity. He would advise the Council to look to results rather than to uniformity, and not to support it at the expense of freedom of action, lest in endeavouring to secure uniformity they should bring the whole system to the dead level of mediocrity. With these few words on the general question, Dr. Sharpey next addressed himself to the particular points which had been brought before the meeting. With regard to the age at which candidates should be admitted, there was no difference of opinion; nor was there with respect to the recommendation that a term of four years' Professional study should be adhered to. Upon the great question, as to the subjects prescribed by the curriculum—speaking of the subjects only, and not of the mode of studying them—he did not think they could propose any revision, especially as there did not appear to be any uniformity of opinion in the Council on the question. He also believed it would be found unadvisable to introduce a prescribed order of study. The capacities, opportunities, and abilities of students are so different that it would only perplex and embarrass to subject them to the same order of study. It appeared to him that it would be equally hopeless to induce the Council to agree upon the order of study, as it was upon the subjects which should constitute the curriculum. In his opinion it should be left to the examinations, which would sufficiently regulate the order in which the different subjects should be prescribed. Upon the all-important subject of examinations, it was known that the University of Edinburgh had for a long time held a preliminary examination and a final examination. By this arrangement, the student, after he has passed his first examination, is disembarrassed of much minute detail not absolutely necessary for his future progress, yet of much value in enabling him to prepare for his final examination. It was in contemplation at Edinburgh to introduce a still earlier examination in scientific subjects, not purely professional, such as natural history, chemistry, botany, geology. In the University of London for several years there has been a preliminary scientific examination in chemistry, natural philosophy, botany, and zoology. He did not recommend licensing bodies to introduce zoology and natural history as a necessary part of the examination for a general Practitioner; but they might offer some inducements to students to pass an examination in chemistry before commencing their regular professional studies. At first it might be optional, afterwards it might be conditional. With regard to the system of examination in classes in preparatory subjects adopted in Edinburgh, Dr. Sharpey expressed his approval of the plan, and was of opinion that an examination conducted in this way could be more full and searching than at a later period. The student has timely warning of his defects, and there is time for him to remedy them, and his mind is relieved of details in preparing for his final examination, the essentials of the subject remaining in his memory. There would, however, be great difficulty in introducing this system into the London schools; the nearest approach to it would be to allow students at the end of each year to present themselves for examination upon the subjects in which they have been engaged during the session. With regard to practical examinations, his own experience induced him to say that they should be introduced wherever it is possible. In the University of London there is scarcely an examination in which a part of the exercise is not by demonstration of specimens or other practical means. He differed from Mr. Syme upon the subject of clinical examinations. The student should be subjected to examinations at the bedside, in order to test his practical proficiency, and it would be a strong inducement to students to give more attention to clinical study, and thus to qualify themselves for taking charge of patients after they have passed their examinations. He was also of opinion that steps should be taken for the supervision of examination, and he appealed to the Council to take that question seriously into consideration. In the meantime, a partial supervision might be carried out by the Branch Councils, by having the examination-papers submitted to their inspection, and by some of the members of the Branch Council being present at the examinations. Something had been said about the excess of lectures, on the ground that they took up time which might be devoted to the study of practical subjects. The best men did not think there was too great a demand upon their time in attending lectures; and if more time were wanted for practical study, the proper mode would be to dispense with a second attendance upon any course of lectures, and to make each course as complete as possible. (Hear.) It would then be in the power of the students to attend the second time if they found it convenient; but if a course of lectures be divided there is no remedy. As Dr. Thomson stated, it would be better to leave something to be regulated by the schools and teachers; for, with the competition that existed, the Council might be assured that the schools would take care to educate the men up to their examinations. With respect to class examinations, he would recommend, as long as the examinations were oral, that the students should listen to their companions, and take down a note of any part that was valuable to be retained. The class examinations could be improved by the introduction of written papers; and independently of their serving as a criterion of fitness for obtaining a licence, they were of such value that he would have them made compulsory. It would relieve the lecturer of a great difficulty, and would enable him to grant a certificate of attendance upon appearance at the examination, and in this respect the plan would have a most salutary effect in ensuring attendance. With reference to the proposal to divide the year into two sessions of four months each, commencing at November and April, he should have no objection to it if the arrangement should be thought advantageous in the country; but he did not think it would be advisable in the London schools. It would take away two of the best months of the session, October and March. It was the duty of the Council to encourage attention being given to practical studies, in which the student is himself engaged; and of all practical studies, excepting the study of diseases, there is none so important as practical anatomy. It would place that study at a disadvantage if they were to cut off the whole of the month of October, and in the middle of the session to cut out the month of March. The division of the session would do more harm by dislocating their present arrangements than it could possibly do good.

LETTER FROM NAPOLEON TO TISSOT.—In his biography of the celebrated Swiss Physician Tissot, who died at Lausanne in 1797, Dr. Eynard publishes a letter addressed to him by Napoleon while the writer was an artillery officer. It relates to the Archdeacon of Ajaccio, Napoleon's great uncle, then a sufferer from the gout. After detailing his uncle's symptoms at length, Napoleon terminates his letter with the expression of his high consideration for his correspondent, derived from a perusal of his works, and an anticipation of the debt of gratitude which he should owe to him. The letter was dated Ajaccio, April 1, 1787, and was endorsed in Tissot's handwriting, "Unanswered letter, of little interest." It may be doubted whether, had Tissot lived to the end of the century, this commentary would have appeared on the letter.

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GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

MINUTES OF MEETING, WEDNESDAY, MAY 4, 1864.

ROYAL COLLEGE OF PHYSICIANS, LONDON.

DR. BURROWS, *President*, in the chair.

Present—

Dr. Alderson.	Dr. Andrew Wood.	Dr. Corrigan.
Mr. Arnott.	Dr. Fleming.	Dr. Sharpey.
Mr. Cooper.	Mr. Syme.	Dr. Parkes.
Dr. Acland.	Dr. Thomson.	Dr. Quain.
Dr. Paget.	Dr. A. Smith.	Mr. Rumsey.
Dr. Embleton.	Mr. Hargrave.	Dr. Christison.
Dr. Storrar.	Dr. Leet.	Dr. Stokes.
Dr. Alexander Wood.	Dr. Apjohn.	

Dr. FRANCIS HAWKINS, *Registrar*.

The Minutes of the last meeting were read and confirmed.

1. Read the following memorial, addressed to the General Council of Medical Registration and Education:—

"We the undersigned registered Medical Practitioners of Banbury beg respectfully to call your attention to a consideration of the 40th Section of the Act, which imposes a penalty for 'falsely pretending to be a registered person,' and which has recently received a practical interpretation in one of the Metropolitan Police Courts; with the view that the different Registrars under the Act should be instructed by the Medical Council to take proceedings against offenders, rather than allowing the law to be vindicated by private individuals.

"The attention of your memorialists has been drawn to this by a most flagrant case of an unregistered person, without a diploma, or even Medical education, being allowed to assume the title of 'Dr.' and to practise in this town in defiance of the Act.

"ARTHUR B. RYE, F.R.C.S., L.S.A.
R. STANTON WISE, M.D., M.R.C.S., &c.
JOHN GRIFFIN, M.D., M.R.C.S.L.
THOMAS CLARKE, M.R.C.S.L.
RICHARD GRIMBLY, M.R.C.S., L.S.A.
C. L. H. PEMBERTON, M.R.C.S. Eng., L.S.A.
WILLIAM T. DOUGLAS, M.R.C.S., L.S.A."

Moved by Dr. ANDREW WOOD, seconded by Dr. ACLAND—"That the memorial from the Practitioners of Banbury be received and entered on the Minutes; and that the Registrar be directed to write in reply that it has been received, and to transmit to the memorialists a copy of so much of a report adopted by the Council on the 4th of August, 1859, as refers to the subject in question." (*See* Minutes, vol. i., p. 35.)—Agreed to.

2. Read the following letter:—

"King and Queen's College of Physicians in Ireland,
"Dublin, April 29, 1864.

"SIR,—I am directed to inform you that on the 2nd May, 1863, the following resolution was passed by this College:

"'That the appointment of Inspectors of Apothecaries' Shops by the College of Physicians be discontinued after the publication of the *British Pharmacopœia*; and the College desire to convey to the General Medical Council their conviction that some legislative measure is necessary for the inspection of compounding establishments, and for ensuring the competency of the persons who conduct them.'

"I am, Sir, your obedient servant,
"(Signed) "L. ATTHILL, Fellow and Registrar.

"To the Registrar, General Medical Council, London."

Moved by Dr. A. SMITH, seconded by Dr. LEET—"That the letter be received and entered on the Minutes."—Agreed to.

3. The adjourned Debate was resumed on the motion, moved at the last meeting by Dr. CORRIGAN, and seconded by Dr. APJOHN, viz.:—

"That the proposed Medical Bill, as amended by the Medical Acts Amendment Committee of last year, be forwarded to our solicitor, with directions to have it drafted as soon as possible, and returned to the Executive Committee;

"That the Executive Committee take means to have the Bill so drafted laid on the table of the House of Commons at the commencement of next Session of Parliament;

"That a copy of the Bill so drafted be forwarded without delay by the Executive Committee to the Branch Councils, to the several Bodies enumerated in Schedule (A) of the Medical Act, to the Pharmaceutical Society and the Press; so that all parties concerned may have ample opportunity, in the interval between publication of the Draft Bill and next meeting of Parliament, of considering the Bill, and of suggesting such amendments as they may desire;

"That the General Medical Council meet at as early a period as may be necessary next year, to consider the various amendments that may be suggested in the interval, in order to insert in the Bill such amendments as may meet their approbation,"

And on the amendment moved by Dr. STORRAR, and seconded by Mr. ARNOTT, viz.:—"That, looking to the great diversity of opinion which exists in Great Britain, in regard to the objects which it is desirable to obtain by an amendment of the Medical Acts, it is not at present expedient that the Council should engage in fresh legislation."

The amendment was negatived.

Second amendment, moved by Dr. ALEXANDER WOOD, seconded by Dr. SHARPEY:

"That the Council, while appreciating the labour and care bestowed by the Medical Acts Amendment Committee on the heads of a Medical Bill proposed in their Report, regret that it is impossible at this late period of the Session, to enter on the full consideration of so wide and important a subject;

"That the Council request the Branch Councils, in the interval between this Session and the succeeding one, to consider how Clauses XX., XXXI., and XL. of the Medical Act could be best amended;

"That the Council resolve to appoint an early day, at their meeting next Session, for the consideration of the whole subject."

The second amendment was carried.

Dr. CORRIGAN required that the names of the majority and minority should be taken down.

Majority.	*Minority.*
Dr. Alderson.	Mr. Arnott.
Dr. Paget.	Dr. Andrew Wood.
Dr. Embleton.	Dr. Fleming.
Dr. Storrar.	Dr. A. Smith.
Dr. Alexander Wood.	Mr. Hargrave.
Mr. Syme.	Dr. Apjohn.
Dr. Leet.	Dr. Corrigan.
Dr. Sharpey.	Dr. Parkes.
Mr. Rumsey.	Dr. Stokes.
Dr. Christison.	

The amendment was then put as a substantive motion.

Amendment, moved by Dr. ANDREW WOOD, seconded by Mr. HARGRAVE—"That it be remitted to the Executive Committee to have drafted by a Parliamentary solicitor a bill, having regard chiefly to Clauses XX., XXXI., and XL. of the Medical Act; that the bill so drafted be transmitted confidentially to the Branch Councils for their opinion; that thereafter the bill be re-drafted, so as to be in a condition to be submitted to the General Medical Council at its next meeting."

The amendment was negatived.

The substantive motion was then put, and carried.

3. A letter having been read from Mr. Thomas Edis, of Barton-street, Gloucester, requesting that his name might be restored to the Medical Register, as it had been omitted through change of residence, it was moved by Dr. STORRAR, seconded by Dr. ANDREW WOOD—"That the name of Thomas Edis be replaced on the Register."—Agreed to.

4. Read, the following letter:—

"Royal College of Physicians, Edinburgh, 5th Nov., 1863.

"Dr. Hawkins, *Registrar*,
"General Council of Medical Education and Registration.

"Sir,—By direction of the Royal College of Physicians of Edinburgh, beg to intimate to you, on behalf of the General Council of Medical Education and Registration of the United Kingdom, that, at a meeting of the Royal College of Physicians of Edinburgh, duly called and held here on 3rd inst., the following motion was submitted to the College, and carried:

"'It having been proved to the satisfaction of the College, that Robert Jacob Jordan, a Licentiate of this College, has been guilty of conduct unbecoming the character of a Physician, in publishing, or causing to be published, an indecent work, entitled, "The Illustrated and Descriptive Catalogue of the Subjects contained in the London Anatomical Museum; to which is annexed the Guide to Masculine Vigour—by a Physician;" that the said Robert Jacob Jordan be deprived of his Licence from the College;

"'That the College thereon declared that the said Robert Jacob Jordan was deprived of his licence from this College, and of the diploma as a Licentiate of this College, conferred on him on the 14th June, 1859, and of all the rights and privileges which, as a Licentiate of this College, he does enjoy.'

"In intimating this deprivation of Mr. Robert Jacob Jordan's licence from this College to you as Registrar of the General Council of Medical Education and Registration of the United Kingdom, the College directed me to request of you 'that any qualifications derived from this College and entered in the Medical Register, as pertaining to Mr. Jordan, may be expunged.'

"I am, Sir, your most obedient servant,
"CHRISTOPHER DOUGLAS,
Clerk to the Royal College of Physicians of Edinburgh."

Moved by Dr. ALEXANDER WOOD, seconded by Dr. ANDREW WOOD—"That the name and qualification, as Licentiate of the Royal College of Physicians of Edinburgh, of Mr. Robert Jacob Jordan, be removed from the Register."—Agreed to.

5. A letter having been read from the Secretary of a reading society at Croydon, respecting an indecent publication, it was moved by Dr. CORRIGAN, seconded by Dr. A. SMITH—"That, as advised by their Solicitor, there does not appear to the Medical Council to be any evidence to connect the publication with any registered Practitioner, and that the publication referred to does not, therefore, come within the province of the Council."—Agreed to.

Confirmed—GEORGE BURROWS, *President*.

MINUTES OF MEETING, THURSDAY, MAY 5, 1864.

ROYAL COLLEGE OF PHYSICIANS, LONDON.

Dr. BURROWS, *President*, in the chair.

Present—As before.

The Minutes of the last meeting were read and confirmed.

1. Read—The following letter:—

"Cawood, Selby, Yorkshire, April 25, 1864.

"*To the General Medical Council of Education and Registration.*

"Gentlemen,—Will you kindly permit me to appear before you to plead my cause for permission to present myself at one of the examining boards?

"I have suffered much from my former misconduct, and have, since my name was erased from the Medical Register, striven all in my power to redeem the past, by attending the lectures and Hospital practice required by candidates for examination (having not done so prior to that time, which caused the Medical men in this district to be so bitter against me. This feeling, I am happy to say, has subsided).

"I have held for some years (and continue) the appointments of Medical officer to several clubs and townships, besides having a large midwifery practice; I therefore trust, as I am truly penitent for my former imprudence, you will take my case into your kind consideration, and not compel me to continue in practice unqualified as I undoubtedly must without your help, and my gratitude for your kindness shall be evinced by my future life.

"Anxiously waiting your reply,
"I am, Gentlemen, your obedient Servant,
"RICHARD ORGAN."

Moved by Dr. ALEXANDER WOOD, seconded by Mr. SYME:—"That the Council decline to accede to the request of Mr. Organ."—Agreed to.

The Report of the Select Committee on Education was presented by Dr. Christison.

Report.

The Committee appointed on May 3, relative to Professional education,

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have to Report that they have carefully considered all the points referred to them by the Council.

They understand the object of the Council to be, that this report should comprise a statement of all recommendations as to Professional education, arising from the late discussion in Committee of Council, as to which there appears to be a general agreement in the Council, and which may be sent forth this session as recommendations to the several licensing bodies of the Kingdom, or suggestions to them for information. The Committee trust that they have kept this object steadily in view in the following recommendations:—

I.—Registration.

The Committee recommend under this head that the regulations proposed in the Report of the Sub-Committee on Registration (Minutes No. 62, pp. 7 and 8) be adopted, with a slight change in No. 3 of these regulations, which will then stand as follows:—

1. That the registration of Medical students be placed under the charge of the branch registrars.
2. That each student be only once registered—viz., when he first enrols himself as a Medical student.
3. That each licensing body request from each School of Medicine under its jurisdiction a list of all students entering on the study of Medicine for the first time at that school, agreeably to the subjoined form.

Form of Register of Medical Students.

Name.	Age last Birthday.	Prelim. Examin. and Date.	Date of Registration.	Place of Study.

4. That the register at each school be closed within fifteen days after the commencement of each session or term.
5. That these lists, as soon as possible thereafter, be transmitted, along with the certificates of each student having passed an arts examination, to the branch registrar of that division of the Kingdom where the school is situated, and that he from them frame an accurate register of Medical students of that division of the Kingdom of which he is registrar.
6. That the registers of Medical students so prepared by the registrars, after examination by the several Branch Councils, be transmitted to the Registrar of the General Council, who shall, under direction of the Executive Committee, print the same in alphabetical order, and supply a copy of this authorised list to each of the bodies in Schedule (A) to the Medical Act.
7. That the several licensing bodies be requested, after October, 1868, to abstain from examining any candidate for licence or degree whose name does not appear on the authorised list of Medical students.
8. That the Branch Councils be desired to take means to make these regulations known to the Medical students at the various Medical schools.
9. That exceptions allowed by the Licensing Bodies to any of the preceding regulations as to registration, together with the reasons for such exceptions, be transmitted to the Branch Council of the part of the United Kingdom in which they have been granted.

II.—Age for Licence to Practise.

The Committee, after having taken into consideration Mr. Rumsey's notice of motion, that the earliest age for obtaining any licence to practise Medicine or Surgery should be twenty-two, recommend that the Resolution 17 of the Recommendations of Council in 1863, p. 7, be adhered to in the following shape:—

1. That the age of twenty-one be the earliest age at which any Professional licence shall be obtained, and that the age shall in all instances be duly certified.

III.—Professional Study.

The Committee have taken into consideration the notices of motion as to Professional study given by Dr. Thomson, Dr. Parkes, and Dr. Storrar, and have come to the following recommendations, in which not only these gentlemen, but likewise every other member of Committee present have concurred:—

1. That no licence be obtained at an earlier period than after the close of the last Winter Session of four years of study after the registration of the candidate as a Medical student.
2. That the course of study required for a licence shall comprehend attendance during not less than four Winter Sessions, or three Winter and two Summer Sessions, at a recognised Medical school, and that evidence shall be produced that the remaining period of the four years has been passed in the acquisition of Professional knowledge.
3. That, in reference specially to Dr. Parkes' notice of motion as to duration of Sessions and of courses of lectures, the regulation of the duration of Sessions and the extent and duration of courses of lectures and instruction be left for the present to the several Licensing Bodies.
4. That it be recommended to the several Licensing Bodies that the courses of instruction required by them should be framed in such a manner as to secure a due share of attention both to preparatory branches and to those more strictly connected with the practice of Medicine and Surgery; and that it be suggested accordingly to these Bodies that their regulations should be such as to prevent attendance upon lectures from interfering with Hospital and clinical study.
5. That, while avoiding for the present all other details by which this object may be attained, it be recommended that no subject of lectures be enforced by regulation to be attended oftener than once.
6. That the Council intimate that they will view with approbation any encouragement held out by the Licensing Bodies to students to prosecute the study of the natural sciences before they engage in studies of a strictly Professional character.
7. That the several Licensing Bodies be requested to furnish a short statement of the mode in which their examinations are now conducted, whether by written, oral, or practical examination, and of the length of time a candidate is under examination in each or all of these ways.

IV.—Examinations.

The Committee have considered the subject of examinations with peculiar care, which was rendered imperative by the proofs brought before the Council in the late discussion on education that the examinations of the Licensing Boards, however conscientiously carried on under the present system, are not always sufficient for their purpose. The subject is one confessedly of much difficulty. The Committee have resolved to recommend:—

1. That the Licensing Boards be advised to encourage the periodical examination of students at their several classes.
2. That the final examination of the Licensing Boards be so carried on as to be an efficient test of the practical acquaintance of candidates with the several branches of Medical knowledge, and especially with the practice of Medicine and Surgery.
3. That the Professional examination for any licence be divided into two parts—the first embracing the primary or fundamental branches of Medicine; and the second the branches directly connected with the practice of Medicine and Surgery; that the former be not undergone till after the close of the winter session of the second year of Professional study; and the latter, or final examination, not till after the close of the winter session of the fourth year of such study.
4. That the examination in chemistry, botany, and natural history may be undergone at an earlier period.
5. That the Professional examinations be conducted both in writing and orally, and that they be practical in all branches in which they admit of being made so.
6. That the Professional examinations be held by the several Licensing Bodies, except in special cases, at stated periods, to be publicly notified.
7. That returns from the Licensing Bodies in Schedule (A) be made annually on the 1st of January, and in the subjoined form, to the General Medical Council, stating the number and names of the candidates who have passed their first as well as their second examinations, and the number of those who have been rejected at the first and second examinations respectively; and that the Registrar forward a sufficient number of forms, with a notice for their being returned, in due time.

Form of Return of Examinations, and their Results.

Passed.				Rejected.	
1st Examination.		2nd Examination.		1st Examination.	2nd Examination
No.	Name.	No.	Name.	No.	No.

V.—Supervision of Examinations.

So much has been truly said in the late discussions in the Council, as to the duty which lies with the Council to carry out the enactments of the Medical Act relative to the supervision of the examinations of the Licensing Boards, that the Committee have felt a great desire to recommend some definite course which the Council might at once pursue for establishing such supervision.

They fear, however, that the Medical Act is defective in this respect, inasmuch as it has not contemplated either the great amount of time and labour required to carry on a really effective supervision of the very numerous examinations of the Licensing Boards of the Kingdom, some of which do not meet for examination at the seats of the Branch Councils, or the amount of qualifications and Professional position necessary to constitute a staff of efficient visitors of examinations; and, consequently, has omitted to provide the means of remunerating them for their important services. But, notwithstanding this obstacle, the Committee recommend that a trial of visitation be immediately made on such a scale as may be a guide to the Council for further regulations on the subject at a future meeting. For this end they recommend that the Branch Councils be instructed severally to organise a set of trial visitations on a scale which may enable them to report upon their success, the conditions for efficiency, and the requisite means for rendering them adequately extensive.

VI.—Suggestions for Obtaining Information.

To these recommendations, which it seems to them advisable that the Council resolve now to adopt, the Committee think it right to add others, as to which the opinions of the Licensing Bodies, and of the Medical schools connected with them, should be requested in time for the consideration of the Council at its next Session, viz.:—

1. Whether, in the opinion of the Licensing Bodies, the commencement of Professional study, by which the duration of it must be regulated, should be held to be only entrance on such study at a recognised Medical school?
2. Whether a "Medical school" may be better or otherwise defined than as one where there is an opportunity of studying at a general Hospital, containing at least eighty beds for patients, and also a teacher of practical anatomy recognised by a Licensing Body?
3. Whether entrance on apprenticeship should be held as another way of constituting the commencement of Professional study?
4. Whether the same privilege be extended to pupilage under a registered Practitioner, who has charge of a Union Workhouse, a Dispensary, or an Hospital, though destitute of Medical or Surgical teachers?
5. Whether any other mode of study may be similarly recognised as the commencement of Professional study?
6. Whether, looking to the great extension of the primary or fundamental sciences of Medicine during the last forty years, the subjects embraced in courses of lectures on these sciences may not be better arranged and treated than now; so that they may be made more applicable than they are at present to the practical instruction of Medical students, as distinguished from general students?
7. Whether it be advisable or not, and if advisable, whether, and how, it may be practicable to adopt, in part at least, the principle of *ad eundem* examinations: so that a candidate who has been satisfactorily examined, in part or completely, for any Professional title conveying the right of practice, shall not be subject to re-examination on precisely the same branches by another Examining Body, before whom he may appear as candidate for the same, or a different, qualifying Professional title?

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8. Whether it be advisable and practicable for the relief of candidates for licences from superfluous examinations, to establish in England, Scotland, and Ireland severally, a conjunct Examining Board, before whom candidates may be subjected to a single series of examinations for the "double qualification" of Physician and Surgeon.

9. Whether it be desirable that the oral and practical parts of the Professional examinations should be so conducted as to be open to registered Medical Practitioners and registered Medical students.

Lastly. In conformity with the notices of motions by Dr. Acland, the Committee recommend the Council to appoint a Select Committee to consider and report at the next session of the Council what are the subjects of examination which should be required of all students prior to commencing the prescribed course of Professional education, and what are the Professional subjects of examination which should be required of all candidates before they receive the license to practise Medicine, or Surgery, or Medicine and Surgery.

R. CHRISTISON, *Chairman.*

Moved by Dr. CHRISTISON, seconded by Dr. ANDREW WOOD—"That the Report be received and entered on the Minutes."—Agreed to.

2. Moved by Dr. CORRIGAN, seconded by Dr. A. SMITH—"That the standing order, paragraph 12, Section III., 'Order of Business,' be amended so as to read as follows:—'That, in cases when a division takes place, any member of the Council may require that the names or numbers of the majority and minority be entered on the Minutes.'"

Amendment, moved by Dr. ALEXANDER WOOD, seconded by Mr. HARGRAVE—"That standing order, paragraph 12, Section III., be altered to the following effect:—'That, in all cases when a division has taken place, any member of the Council may require that the names or numbers of the majority and minority, and of those declining to vote, be entered on the Minutes.'"

The amendment was carried; and, having been then put as a substantive motion, was agreed to.

3. Moved by Dr. A. SMITH, seconded by Dr. CORRIGAN—"That the names of persons which have been removed from the register by order of the General Medical Council, or by the Executive Committee, in accordance with the standing orders, be printed annually as an appendix to the register."

The motion was negatived.

4. Moved by Dr. A. SMITH, seconded by Dr. ALEXANDER WOOD—"That the Executive Committee be authorised to remove from the register the qualification of any person who has been deprived of his Diploma or Licence by any of the bodies in Schedule (A) of the Medical Act."—Agreed to.

"That the Executive Committee be authorised to remove from the register the name of any person who has been expelled, or deprived of his Diploma or Licence by any of the bodies in Schedule (A) of the Medical Act, provided the said person has not registered any other qualification."

5. Moved by Dr. A. SMITH, seconded by Dr. ALEXANDER WOOD:—"That the standing order, chap. viii., paragraph 6, be amended as follows:—'That, should the Council remove the name of any person from the Register, under section XXVIII. or XXIX. of the Medical Act, due intimation of the same be made to all the Bodies enumerated in Schedule (A) to the Act.'"—Agreed to.

6. Moved by Mr. SYME, seconded by Mr. RUMSEY:—"That no Member of the Medical Council shall speak upon any subject for more than a quarter of an hour, without permission of the Council."

The motion was negatived.

Mr. SYME required that the numbers of the majority and minority, and of those who declined to vote, be entered on the Minutes.

Majority	11
Minority	6
Declined to vote	5

7. Moved by Dr. ANDREW WOOD, seconded by Dr. EMBLETON:—"That the various standing orders which have been agreed upon during this session be referred to the Committee on Standing Orders, in order that they may be incorporated with the Standing Orders of the Council, and with instructions to that Committee to number the orders."—Agreed to.

Moved by Dr. CHRISTISON, seconded by Dr. ANDREW WOOD:—"That Dr. Embleton be appointed Chairman of the Committee on the Standing Orders, in the room of Dr. Christison, resigned."—Agreed to.

8. Moved by Dr. ALEXANDER WOOD, seconded by Dr. ANDREW WOOD—"That the Council take into consideration the Report of the Committee on the requirements of the Commissioners for administering the Laws for Relief of the Poor in Ireland, deferred from last session."—No. 54, Sect. 26, vol. ii., pp. 231, 232, and 233).—Agreed to.

Moved by Dr. ALEXANDER WOOD, seconded by Dr. ANDREW WOOD—"That, whereas the Commissioners for administering the Laws for the Relief of the Poor in Ireland require a Licence in Midwifery from Candidates for employment under them, the Medical Council requests the President to communicate with the Home Secretary, for the purpose of inducing him to request the Commissioners to receive the Certificates of all the Bodies in Schedule (A) to the Medical Act, examining in Midwifery, thereby carrying out the reciprocity in practice which it was one object of the Medical Act to secure."

The motion was carried.

Dr. ALEXANDER WOOD required that the names of the majority and minority be entered on the Minutes:

Majority.	*Minority.*
The President.	Dr. Smith.
Dr. Alderson.	Mr. Hargrave.
Mr. Cooper.	Dr. Apjohn.
Dr. Acland.	Dr. Corrigan.
Dr. Paget.	
Dr. Embleton.	
Dr. Storrar.	
Dr. Alexander Wood.	
Dr. Andrew Wood.	
Dr. Fleming.	
Mr. Syme.	
Dr. Sharpey.	
Dr. Parkes.	
Dr. Rumsey.	
Dr. Christison.	
Dr. Stokes.	

Moved by Dr. ALEXANDER WOOD, and seconded by Mr. SYME:—"That the Registrar be instructed not to enter on the register the licences in midwifery of the King and Queen's College of Physicians in Ireland, or of the College of Surgeons of Ireland, inasmuch as these qualifications do not appear on Schedule (A) to the Medical Act."

Amendment, moved by Dr. APJOHN, and seconded by Dr. CORRIGAN:—"That before undertaking to give directions to the Executive Committee to depart from the regulations under which the Register has hitherto been published, the opinion of Sir Hugh Cairns and Mr. Hobhouse, referred to in the Report of the Committee on the requirement of the Poor-law Commissioners, &c. (see Minutes, vol. ii., p. 232), be read by the Registrar."

The amendment was negatived.

Second amendment, moved by Dr. PARKES, and seconded by Mr. ARNOTT:—"That both as regards future registration, and also the registrations already effected, a case be drawn out, without delay, by the Executive Committee and the solicitor to the Council, and be submitted to the law officers of the Crown, as to the legality of registering licenses in midwifery which do not appear in Schedule (A) to the Medical Act, and that the Executive Committee be authorised to act on the legal opinions thus obtained."

The second amendment was carried, and, having been put as a substantive motion, was agreed to.

9. Moved by Dr. QUAIN, and seconded by Dr. EMBLETON:—"That at future meetings of the Council, the first hour after the chair has been taken each day be appropriated to the consideration of such matters of business of the Council as are not likely to call for lengthened debate."

The motion was negatived.

Confirmed—GEORGE BURROWS, *President.*

MINUTES OF MEETING, FRIDAY, MAY 6, 1864.

ROYAL COLLEGE OF PHYSICIANS, LONDON.

Present—As before.

Dr. BURROWS, *President*, in the chair.

The Minutes of the last meeting were read and confirmed.

1. Moved by Dr. CHRISTISON, seconded by Dr. STORRAR—"That the standing orders, in regard to order of business, be suspended, and that the Council proceed to consider the report of the Select Committee on Professional education."

The motion was negatived.

2. A correspondence having been read, which had taken place between the Poor-law Board, the Guiltcross Union, the Faculty of Physicians and Surgeons of Glasgow, and the Registrar of the General Medical Council, in reference to the question, whether the Licence of the Faculty of Glasgow confers a qualification both in Medicine and in Surgery.

Moved by Dr. FLEMING, seconded by Dr. ALEXANDER WOOD—"That in reply to the inquiry made by the Secretary of the Poor-law Board, in regard to the powers conferred by the licence of the Faculty of Physicians and Surgeons of Glasgow, the Registrar be instructed to intimate that the question involving the legal interpretation of a charter is one which the Council is not competent to answer."—Agreed to.

3. Read, the following letter from the Director-General of the Army Medical Department:—

"Army Medical Department, April 9, 1864.

"Sir,—The President and Fellows of the King and Queen's College of Physicians fn Ireland having applied to the Secretary of State for War to have the letters 'Phys.' inserted in the Army List, after the names of such Medical officers as may possess the qualification of that body, and Lord De Grey having determined to have the subject referred to the General Medical Council, with a view of eliciting their opinion as to the expediency of recognising such a title as a means of distinguishing such Licentiates from other legally qualified Medical Practitioners, I shall feel obliged by your having the matter so submitted to the General Medical Council at their next meeting.

"I have the honour to be, Sir,

"Your most obedient humble servant,

(Signed) "J. B. GIBSON, *Director-General.*

"The Secretary, General Council of Medical Education,

"32, Soho-square, W."

Moved by Dr. CORRIGAN, seconded by Dr. SMITH—"That it is the opinion of the General Medical Council that it would not be advisable to insert the letters 'Phys.;' but that it is the opinion of the General Medical Council that the several Medical qualifications which army Surgeons possess, as inserted in the *Medical Register*, might be entered after their names in the *Army List*."—Agreed to.

4. Moved by Dr. CORRIGAN, seconded by Dr. A. SMITH—"That a letter from the King and Queen's College of Physicians respecting the licence granted by the Apothecaries' Hall of Ireland be read."

The previous question was moved by Dr. PAGET, seconded by Dr. ACLAND.—Agreed to.

5. Moved by Dr. ALEXANDER WOOD, seconded by Mr. SYME—"That the standing order, Sect. III., No. 5, be suspended, and that the Council do now proceed to consider the Report of the Select Committee on Education."—Agreed to.

Moved by Dr. FLEMING, seconded by Dr. STORRAR—"That the Report of the Select Committee on Education be held as read."—Agreed to.

Moved by Dr. CHRISTISON, seconded by Dr. STOKES—"That Regulation No. 1, Sect. I, of the Report of the Select Committee be adopted, viz.: 'That the registration of Medical students be placed under the charge of the Branch Registrars.'"—Agreed to.

Moved by Dr. CHRISTISON, seconded by Dr. STOKES—"That Regulation No. 2, Sect. I., be adopted as thus amended, viz.: 'That every student be registered at the commencement of Professional study.'"—Agreed to.

Moved by Dr. CHRISTISON, seconded by Dr. STOKES—"That Regulation No. 3, Sect. I., be adopted, as thus amended, viz.:—'That the several Licensing Bodies be requested to furnish to the Branch Registrars, at the beginning of January annually, a list of students who have been registered for the first time during the preceding year, according to the subjoined form:'"

Form of Register of Medical Students.

Name.	Age last Birthday.	Prelim. Examin. and Date.	Date of Registration.	Place of Study.

—Agreed to.

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Moved by Dr. CHRISTISON, seconded by Dr. STOKES—"That Regulation No. 4, Sect. I., be adopted as thus amended, viz., 'That the Register of each Licensing Body be closed within fifteen days after the commencement of each Session or Term;' 'And that Regulations 4 and 5 be transposed.'"—Agreed to.

Moved by Dr. CHRISTISON, seconded by Mr. ARNOTT—"That Regulation No. 5, Sect. I., be adopted as thus amended, viz., 'That from the lists of the Licensing Bodies each Branch Registrar shall frame an accurate Register of Medical students of the division of the United Kingdom of which he is Registrar.'"—Agreed to.

Moved by Dr. CHRISTISON, seconded by Mr. ARNOTT—"That Regulation No. 6, Sect. I., be adopted as thus amended, viz:—'That the register of Medical students so prepared by the Registrars, after examination by the several Branch Councils, be transmitted to the Registrar of the General Council, who shall, under direction of the Executive Committee, prepare and print an alphabetical list of all registered students, and supply a copy of this authorised list to each of the bodies in Schedule (A) of the Medical Act.'"—Agreed to.

Moved by Dr. CHRISTISON, seconded by Dr. STOKES—"That Regulation No. 7, Sect. I., be adopted as thus amended, viz.:—'That the several Licensing Bodies be requested, after October, 1868, to abstain from examining any candidate for licence or degree whose name does not appear on the authorised list of Medical students as having passed the preliminary examination in arts, or whose name is not already on the Medical Register.'"—Agreed to.

Moved by Dr. CHRISTISON, seconded by Dr. STOKES—"That Regulation No. 8, Sect. I., be adopted, viz., 'That the Branch Councils be desired to take means to make these Regulations known to the Medical students at the various Medical schools.'"—Agreed to.

Moved by Dr. CHRISTISON, seconded by Dr. STOKES—"That Regulation No. 9, Sect. I., be adopted as thus amended, viz., 'That exceptions allowed to the Licensing Bodies to any of the preceding Regulations as to registration, together with the reasons for such exceptions, be transmitted in a separate list, to the Branch Council of the part of the United Kingdom in which they have been granted.'"—Agreed to.

Moved by Dr. CHRISTISON, seconded by Dr. STOKES—"That Regulation No. 1, Sect. II., be adopted, viz.:—'That the age of 21 be the earliest age at which any Professional licence shall be obtained; and that the age shall in all instances be duly certified.'"

Amendment moved by Mr. RUMSEY, seconded by Mr. HARGRAVE—"That Regulation No. I, Sect. II., be adopted with the addition—'That, after the year 1868, the earliest age at which any Professional licence shall be obtained be 22.'"

The amendment was negatived.

Mr. RUMSEY required that the numbers be entered on the Minutes:—

Majority	11
Minority	7
Declined to vote	5

The motion was then put and carried.

Moved by Dr. CHRISTISON, seconded by Dr. STOKES—"That the further consideration of the report of the Select Committee be now adjourned."—Agreed to.

6. Moved by Dr. A. SMITH, seconded by Dr. ANDREW WOOD—"That the Standing Orders be suspended, and that the Council meet to-morrow at twelve, instead of two o'clock."—Agreed to.

7. Moved by Dr. CHRISTISON, seconded by Dr. ANDREW WOOD—"That the Standing Orders be suspended, and that the Council now proceed to ballot for the members of the Executive Committee."—Agreed to.

A ballot having been taken, Mr. Arnott, Dr. Acland, Dr. Sharpey, and Dr. Quain were found to be elected.

Confirmed—J. M. ARNOTT, *Chairman.*

REVIEWS.

Die Pathologie und Therapie der Rachitis. Von Dr. G. RITTER.

The Pathology and Therapeutics of Rickets. By Dr. GOTTFRIED RITTER, of Rittershain, Director of the Medical Poliklinik at Prague. Berlin, 1863.

DR. RITTER'S work is carefully and scientifically written, and appears to be based upon a large clinical experience. For the most part his views confirm those put forth by Dr. Jenner in the lectures published in the *Medical Times and Gazette* in the year 1860. On some points, however, to which we shall allude, he is opposed to him. Rickets would appear to be extremely common in Prague. On instituting a searching examination, Dr. Ritter found that more than 31 per cent. of all the children attending the institution to which he is attached showed more or less decided tokens of the past or present existence of that disease. This, of course, was among the poor; but he is of opinion that of all morbid diatheses among children rickets is the most prevalent, and furnishes the greatest number of victims. Its existence often escapes notice, in his opinion, owing to superficial methods of examination. Among the causes of the disease he places first, hereditary descent, in this respect ranking it on a par with tuberculosis; phthisis, especially on the father's side, and, although less frequently, syphilis, predispose to rickets in the children, as also do general debility and bad nutrition of the mother. Dr. Ritter does not recognise a greater predisposition on the part of the later-born children. Next to hereditary tendency come overcrowding of dwellings and contamination of the air.

The first part of Dr. Ritter's volume is occupied with the description of the morbid processes in the bony structures, which constitute the most obvious, though not the most essential, characters of the disease. The idea, advanced especially by some French writers, that the rachitic condition of the bones is due simply to non-assimilation or excessive excretion of the earthy elements, is shown to be entirely inapplicable, and the character of rickets as a special form of dyscrasy is maintained. The chemical differences of rachitic from healthy bones in the early years of life are thus summed up, chiefly from Friedleben's analyses:—There is a diminished quantity of earthy salts, especially at the height of the disease, nearer the normal amount in the older portions of the bone, and much below it in the newly-formed portions; in the latter an increased quantity of carbonic acid; in all, little difference in respect to fatty matters, with the exception of the long bones, in which it is increased, owing to apparent infiltration of the bony substance with marrow; the specific gravity of the bones is diminished. Their organic basis is not essentially altered, but the unossified cartilage contains an excess of water.

The most usual period of the development of the disease is about the middle of the first year of life, but traces of it are frequently visible at birth. The deformities often commence in the trunk, and extend later to the extremities. The progress of the disease seems sometimes to be checked by tuberculosis, to which it greatly predisposes. The size of the head is generally increased, the forehead prominent; it is for the most part asymmetrical, the right oblique diameter being the shorter. The "soft hind head" first described by Elsässer, in which some portions of the posterior part of the skull are thinned and yield to slight pressure, Dr. Ritter denies to be of a rachitic character; it is connected rather with hydrocephalus. The case is the same with the head-sweats, which Dr. Ritter ascribes to the same tendency to effusion that exists within the skull. The blowing sound heard on auscultating the head in some cases has no special relation to rickets; its cause is arterial.

Dr. Ritter takes some pains to point out the differences between the distortion of the pelvis which arises from rickets in early life, and that which is due to the later access of osteomalacia. The former is to be ascribed to two distinct factors—first, the direct effects of the rachitic disease; and secondly, alteration of form from pressure on the yielding bones when the child begins to walk before the disease has ceased. The direct rachitic changes arise from the abnormal and unequal growth of the periosteum and cartilage, especially on the edges of the bones, and from the checked and irregular ossification and the retarded growth arising from this cause. From the weight of the body ensue a pressing forwards and downwards of the promontory and sacrum, while the arch of the pubis is carried upwards and becomes flattened. Thus the pelvis becomes narrowed from before backwards—the transversely oval or the simple flattened rachitic pelvis. In osteo-malacia, on the other hand, the three points which sustain the weight of the body, the promontory and the two acetabula, are pressed together, and the pelvis has a triangular form, the symphysis pubis often projecting into a beak-shaped process. The two forms, however, are often mingled and mutually obscured. Asymmetry of the pelvis arises from spinal curvatures.

In respect to the condition of the internal organs, Dr. Ritter disputes altogether Dr. Jenner's view of albuminoid infiltration of the liver, spleen, and other glands as an especial characteristic of the disease, and as the cause of the emaciation. He affirms such infiltration to be rare in rickets, and when present to bear no constant relation to the general nutrition. The projection of the abdomen is due mainly to gaseous distension of the intestines; spinal curvature, depression of the diaphragm, and enlargement of the glandular organs contributing to it more or less. Dr. Ritter holds that the almost constant patches of solidified lung tissue are due, as the rule, to the mechanical pressure of the enlarged articulations of the ribs. Emphysema is almost always present, and the bronchi contain frothy or slimy mucus. In some cases of slowly progressing tuberculosis of the lungs the distorted rachitic thorax tends to resume its normal form. At least, Dr. Ritter feels sure he has witnessed this result, and thinks it might aid the diagnosis of tubercle in rachitic patients. Diarrhœa is almost invariably present at some stage of the disease; in the great majority of cases it attends its commencement. Cough and dyspnœa, frequently of a paroxysmal character, are seldom absent, and often these first attract the notice of the friends. There is no proof of pain or increased tenderness in the bones or skin. The restlessness and shrinking of the child are accounted for by the severity of the other symptoms.

For treatment Dr. Ritter recommends, in addition to hygiene, in which plenty of good air holds the first place, and natural

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and nutritious food the second, the milder preparations of iron. He distrusts altogether cod liver oil. The mother's health should be sedulously attended to during pregnancy, the child suckled entirely during the first few months, and too soft pillows avoided; this latter recommendation doubtless having an especial value where German customs prevail. For the diarrhœa he uses chalk with astringents; for the pulmonary symptoms, ipecacuanha and morphia; and for the fever, quinine, and in some cases digitalis. Cold applications to the head are of the chief service in the cerebral complications. For the remaining distortions in those who recover, gymnastic exercises and Surgical treatment are the remedies.

Guida Teorico-Pratica del Medico Militare in Campagna. Dal Cavaliere Francesco Cortese, Ispettore Sanitario nell'Esercito Italian, etc., etc. Torino, 1862-63. Pp. 357 and 339.

Theoretical-Practical Guide for the Army Surgeon in the Field. By Cavalier Francesco Cortese, Inspector-General of the Italian Army, etc., etc.

Dr. Cortese, formerly Professor of Anatomy at the University of Padua, and well known by earlier contributions to anatomy and physiology, is one of the oldest Italian Army Surgeons. He served in most of the Italian wars, and during the late campaign had charge of the 4th division under General Cialdini, took part in the principal engagements, and had the opportunity of gathering such experience as few Army Surgeons of the present day have had. A work, therefore, on military Surgery from his hand *à priori* deserves notice.

The work is divided into two parts. In the introduction to the first the author speaks about the preliminary arrangements at the commencement of a war, the construction of Hospitals and ventilation, overcrowding being particularly warned against. In the late discussion at the French Academy of Medicine on the reasons of the lower rate of mortality in the English Hospitals compared to the French, the importance of this question has been sufficiently argued and settled. The author recommends all sick officers to be admitted into Hospital instead of private houses, such an arrangement greatly simplifying supervision and the labour of the Medical officers. He speaks of the construction of huts and tents—the latter particularly to be used for itch and syphilitic patients, in order not to overcrowd the Hospitals. In this we do not agree with the author, and would prefer, climate permitting, to place the typhoid patients and the severely wounded in tents.

The mode of removing the wounded from the field, and the sick from one Hospital to another, is next considered, the cacolets being highly recommended for this purpose. During the late Italian war the voluntary supplies from the inhabitants were very numerous, but such are not to be relied upon; and great stress is laid on the necessity, in supplying the wants of an army, of duly considering the difference between fighting in a *friendly* country or that of the *enemy*.

The utmost simplicity in bandages and appliances is recommended, and a separation of the Medical from the Surgical cases, as well as a proper division of Professional labour amongst the Medical officers—a subject well worthy of attention in the army of every country. The first part of the work is devoted to the treatment of the wounded on the field, and in the *ambulances*. The first chapter treats of gunshot wounds in general by different projectiles, — 1st, according to their size and material; 2nd, the tissues affected by them; 3rd, their direction. The immediate treatment of gunshot wounds, the extraction of the ball, according to the parts where it is lodged, and immediate amputations, are next considered. The second chapter diffusely treats of contused wounds; the third, of wounds by burning; the fourth, of cut wounds,—all according to the parts affected. The fifth chapter speaks of the assistance to be rendered *on the field*, in cases of hæmorrhage, of amputation, and in the treatment of stumps.

The introduction of the second part of the work relates to the remedies and appliances used in military Hospitals, the various bandages, the application of ice and cold water, irrigation and immersion, poultices and the dressing of wounds, blood-letting, diet, and anæsthetics. As an Italian Surgeon, it is worthy of note that the author disapproves of too much bleeding of the wounded, warning against pyæmia as a frequent consequence, the absorption of septic material being thereby promoted. The articles in the first chapter on Hospital gangrene (against which the author strongly recommends the early use of the actual cautery), on pyæmia, and tetanus, are eminently worthy of notice. The remainder of this part of the work contains the treatment of the different wounds, and their consequences. Resection of the different articulations is also well discussed.

Such is an outline of this very excellent work, which certainly furnishes the Army Surgeon with most valuable information, such as will enable him to meet the contingencies of the field; for, as the author very properly remarks, "the ulterior treatment of soldiers does not differ from that of other patients. To the soldier in Hospital the general principles of Surgery are applicable."

We would have liked to see a chapter added *on feigned diseases*, without which no treatise on Military Surgery can be said to be complete.

The author evinces a good knowledge of ancient and modern contributions to French, English, and German Military Surgery, to which he adds a great amount of personal experience. He is at present engaged on a work "On a Scale of Compensation (pensions) to be allowed to Soldiers according to the extent of Injuries received," which, to judge from his present book, will, doubtlessly, be of great value to the military authorities; and in it the author may perhaps be able to introduce a chapter on "*feigned diseases.*"

An Essay, Historical and Critical, on the Mechanism of Parturition. By William Leishman, M.D., etc., Physician to the University Lying-in Hospital, and to the Royal Infirmary; Lecturer on Medical Jurisprudence in Anderson's University, Glasgow. 8vo. London: Churchill and Sons. 1864. Pp. 129.

On the Diseases of Women. By Fleetwood Churchill, M.D., etc., Professor of Midwifery and Diseases of Women and Children to the King and Queen's College of Physicians, Ireland, etc. Fifth Edition, carefully revised and enlarged. Dublin: Fannin and Co. 1864. Pp. 938.

Three Hundred Consultations in Midwifery. By Robert Lee, M.D., F.R.S. London: John Churchill and Sons. 1864. 12mo, pp. 217.

These three works may be fairly held to represent respectively the theory and physiological basis of obstetrical science; the various morbid processes incident to parturition and other cognate functions of the female; and the actual practical way in which both branches of information are brought under the notice of the Medical man in his ordinary avocations. Although they exhibit great differences in character, size, and scope, all alike serve to complete the circle of useful knowledge, and deserve the serious attention both of students and Practitioners.

Dr. Leishman introduces his subject by asserting that it is still too much of a theory, in spite of the elaboration with which modern teachers have expounded it. "Hence, as an almost inevitable result, new views have been propounded which, as inevitably have conduced in later years to perplexity and doubt in regard to what was previously comparatively clear. My main object," he says, "in the following memoir is to place before my readers, as clearly as the difficulty of the subject and my powers of description will permit, the great mechanical laws which guide us in the practice of the obstetric art. But I may state at the same time that it is my intention, both in reference to the history of the subject and otherwise, to give to the expression 'mechanism of parturition' a somewhat more extended signification than it usually bears."

He then at once proceeds to an interesting review of obstetrics in their historical aspect, from the most ancient down to modern times. This occupies about half the essay; and while it passes rapidly over earlier and cruder notions, examines in some detail the views of Naegelé, West, Rigby, and other distinguished accoucheurs.

In a third chapter cranial presentations are considered, and their varieties illustrated by some good woodcuts. Naegelé's views on "Biparietal Obliquity" are controverted relatively to the brim of the pelvis, but admitted and confirmed as regards a lower position of the presenting head. The position of the head at the outlet forms a fourth chapter; its obliquity is accurately measured by a cord held perpendicularly from pubes to perinæum when it first emerges from the vulva; and then the practical question of supporting the perinæum is entered upon. This measure is stated to have originated with Giffard in 1734, and to have been first inculcated as a duty of the Accoucheur by Professor Hamilton, of Edinburgh. The

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conflicting views of modern authorities are adverted to, and the writer speaks strongly as to the uselessness of the practice; indeed, he holds the opinion that "the more assiduously the perinæum is supported in natural labour, the greater is its danger of rupture." The accident, when it actually occurs, he refers rather to pelvic deformities, malpresentations, rigidity, great rapidity of labour, injudicious use of instruments, persistence of the hymen, or, last, but not least, to mechanical support. Other cranial positions, their comparative frequency, and the discrepant statistics of various writers occupy the next place, followed by the question of artificial rectification to be brought about where such a proceeding might be advantageous. With this the essay concludes, the writer regretting that the length to which his observations on the ordinary cranial positions have extended precludes a consideration of breech, footling, and face presentations.

Of the second work on our list it is hardly necessary to speak in detail. Its appearance in a fifth edition, as well as its acknowledged reputation, testify sufficiently to its value. The author expresses, in a preface, his anxiety to afford all possible accuracy by repeated correction; alludes to the considerable additions which the work has received, mainly the result of increased experience; and acknowledges his obligations, among others, to Dr. M'Clintock, for his liberality in allowing the plates from his work to be at Dr. Churchill's disposal in augmentation of the illustrations to the book. It will be seen from the title that the bulk of this standard work now nearly reaches 1000 pages.

Dr. Robert Lee dedicates to the pupils of St. George's Hospital 300 observations from his practice. They are rather fragmentary in character, and no statement of general results is appended beyond a short paragraph on the last page, saying that they are supplementary to the "histories of 545 cases of difficult, preternatural, and complicated labour," comprised in the second edition of the author's "Clinical Midwifery." Whatever may be our opinion of Dr. Lee's practice as here detailed (and on former occasions it has been our duty to express disapprobation of it in some respects), there can be no doubt that he deserves the thanks of the Profession for frankly laying open to criticism the simple facts of his more remarkable cases. The little book affords a fair sample of the problems propounded to an obstetric Practitioner in high repute, and the way in which they come before him. We can entertain no doubt of their accuracy as to observation and record; nor is it uninstructive to use them, like their mathematical correlatives, as theorems for our own private solution.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, APRIL 5 AND 19.

Mr. PRESCOTT HEWETT, President.

DR. WALE HICKS read a report on a

SPECIMEN OF LUNG AND SPLEEN OF A HORSE

obtained at the Veterinary College, and mentioned in our last report. The spleen was seen to be almost filled with nodules of tolerably firm yellowish-white tissue, the larger nodules being about two inches in diameter, and the smaller about a quarter of an inch. The lung was affected much in the same way, but the masses were greyish-white, less firm, and more juicy, and many of them were very minute. Portions, both of the lung and spleen, were removed for microscopic examination. On making thin sections of the lung tissue, and washing and pressing them, portions of the infiltrated substance were removed, and many of the air-cells could be distinctly seen, empty and healthy looking, which were before entirely blocked up. The matter contained in the air cavities, however, was not so easily or so completely removeable as in the specimen of horse's lung before examined. The cell-growth somewhat resembled that in the previous specimen, but was more varied. Most of the corpuscles had a finely granular appearance, and some of them contained a number of distinct minute globules resembling oil globules. A considerable number of the corpuscles were small and rounded, about the size of a blood corpuscle; a smaller number were much larger, double or treble the diameter of the former, also spherical, and containing a distinct nucleus. Besides these, there were many other corpuscles intermediate in size, varying greatly in shape, some oval or rounded, others fusiform or candate; most of these were also nucleated. Some of the juice from the cancerous nodules of the spleen was also examined, and found to resemble greatly that from the lung, the chief difference being that the cells were somewhat less distinct and well formed, and were mingled with some of the elongated fusiform fibre-cells of the spleen, and with a greater quantity of granular matter than was observed in the lung.

Dr. GIBB read a report on Dr. Murchison's case of

NECROSIS OF THE HYOID BONE.

The specimens submitted to him, after the most careful examination and comparison with a number of healthy bones, were made out to be component parts of a necrosed hyoid bone. The larger specimen consisted of the right half of the body of the bone, being much thicker than natural, the result of the morbid process, which most probably was in the first instance periosteal, and extending to the true osseous structure. The anterior projecting angles for the origin of muscles corresponded pretty accurately with those of the healthy bone. The smaller specimen was a portion of one of the greater cornua, probably the right, as the general disease would seem to have been mainly confined to that side. Dr. Gibb thought that, allowing for the alterations produced by inflammation, the diagnosis of the bone involved was most satisfactorily established.

Dr. SCHULHOF showed several

FIBRINOUS CASTS OF THE UTERUS.

A woman, 62 years of age, who had had good health until recently, began to suffer from a sanguinous discharge, and subsequently passed two substances analogous to the amenorrhœal membrane of younger women.

The specimens were referred to Dr. Grailly Hewett for further examination.

Mr. SQUIRE then showed the

OVA OF THE PEDICULUS CORPORIS.

They had been taken from a man, 60 years of age, who had suffered from prurigo two years. He said that the body louse was a frequent cause of the disease called prurigo senilis. It was not often found, as it was not looked for in the right place, viz., in the clothes. Mr. Squire had examined sixteen cases, and had found the lice in each.

Dr. BRISTOWE could confirm Mr. Squire's statements as to the lice being a frequent cause of prurigo senilis.

Dr. HARLEY showed a specimen of

CONGENITAL MALFORMATION OF THE KIDNEY.

A child died at the age of 10 months of croup, having had no symptom of renal disease. Her only peculiarity was that she would never lie on the right side. There was no kidney stricture to be seen, the ureter was quite occluded, and a mass of cysts occupied the site of the kidney.

Dr. GIBB exhibited some

WORMS EXPELLED FROM THE NOSE AND FRONTAL SINUSES

of a girl, aged 11 years. For three months she complained of pains in her head and over the frontal sinuses, and also in the chest. The face, forehead, and nose then became swollen and erysipelatous, with a discharge from the nose and the passage of several worms, which were believed to come from the frontal sinuses. They were exceedingly small, about an inch long, and when coiled up were not larger than pins' heads. The girl is still under treatment in the Westminster Hospital.

Mr. MASON inquired if Dr. Gibb had seen any of the worms passed.

Dr. GIBB had seen them come from the right nostril.

Dr. OGLE exhibited

A CHILD HAVING THE GREATER PART OF THE STOMACH, DUODENUM, AND ALL THE INTESTINES EXTERNALLY LYING ON THE OUTER SURFACE OF THE ABDOMEN—ILLUSTRATED BY PHOTOGRAPHIC REPRESENTATIONS.

For the opportunity of exhibiting this specimen Dr. Ogle was indebted to Mr. James Eaton, of Grantham, formerly a student at St. George's Hospital. The child (a male) was apparently an eight months' child, and was born alive. The mother, in good health, aged 23, had a natural and very easy labour, and the liquor amnii had escaped before Medical aid could be obtained. The child breathed easily at first, but after a few hours began to breathe heavily. The exposed stomach and bowels became inflated and inflamed, after two evacuations of meconium. On the following day the breathing had become laborious, and the viscera more distended. There was also

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much crying, as if pain was suffered. The child died twenty-nine hours after birth. The viscera, situated externally, were quite devoid of any peritoneal investment, and communicated with the abdominal cavity by means of an opening of the size of a shilling in the abdominal parietes, about an inch from the umbilicus. When the intestines, etc., were drawn on one side, the liver within the abdomen could be seen through the above-mentioned opening. The peritoneum lining the abdominal walls was found to be directly continuous with the outer skin at the forementioned opening in the abdominal parietes. No other maldisposition of parts was found in the body.

Dr. Ogle also exhibited a specimen of

COLLOID OR ALVEOLAR CANCER OF THE PERITONEUM OF VERY RAPID GROWTH.

The patient, a woman aged 47, was admitted into St. George's Hospital, under Dr. Ogle's care, in September in last year. She had only been ill between seven and eight weeks, suffering at first from anasarca of the legs; frequent vomiting and constipation followed (but never jaundice), and she was admitted with constant vomiting of a greenish fluid, and pain chiefly at the right side of the epigastric region. The urine was free from albumen. Much pain came on over the belly, which had become distended with fluid, and irregular, hard masses became felt in the abdomen, especially in the right cæcal region. The pulse was mostly very quick (about 112 in a minute). She sank and died two weeks after admission, and about ten weeks after the first symptoms set in (her mind remaining entire to the last). After death the entire peritoneum was found studded with numbers of colloid carcinomatous growths, forming a continuous layer, and the great omentum formed a large mass of the same growth. Moreover, the pylorus of the stomach was thickened by a growth of a distinctly *scirrhus* nature.

(To be continued.)

MEDICAL NEWS.

University of St. Andrews.—List of Candidates who obtained the degree of M.D. on April 29, 1864:—

William Sankey, M.R.C.S.E., L.S.A., Sutton Valence, Kent; William Parker, L.F.P.S., L.S.A., Bermondsey; James Walsh, M.R.C.S.E., M.R.C.P.E., L.M.I., Staff-Surgeon, Limerick; John Alfred Lush, M.R.C.S.E., L.S.A., Salisbury; John Fenton, L.R.C.P.E., F.R.C.S., L.S.A., Liverpool; W. P. Charsley, M.R.C.S.I., Principal Civil Medical Officer, Ceylon; William Nassau Irwin, L.R.C.S.I., L.R.C.P.I., diploma Midwifery, Monaghan, Ireland; Walter Mc. D. Kelly, L.R.C.S. Edin., L.S.A., Crook, Durham; Thomas Wilson, M.R.C.S.E., L.S.A., Hull; J. Sydney Smith, M.R.C.S.E., L.M., L.S.A., Tiverton.

Royal College of Surgeons of England.—The following Gentlemen having undergone the necessary Examinations for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 10th inst., viz.:—

Messrs. Herbert Branwhite Spurgin, Thrapston, Northamptonshire; Thomas Edward Darley Hayes, Liverpool; Edwin Burrell, Westly, near Bury St. Edmunds; Robert Charles Earle, Totness, Devon; George Paddon, Hitchin, Herts; Henry Richard Smith, Newark, Notts, and Henry Todd, Broughton, Bradford, Yorkshire, Students of Guy's Hospital. Charles Clairidge Brewer, Newport, Monmouthshire: George Alexander Augustus Coates, Sirhawy, Monmouthshire, and Jesse Wheelock Thibon, Antigua, West Indies, of St. Bartholomew's Hospital. William Richard Goodfellow, Commercial-road, of the London Hospital; Henri Victor Bertin, L.R.C.P. Lond., St. John's-wood, of St. Mary's Hospital; Charles St. Aubyn Hawken, Redruth, of the Westminster Hospital; George Grewcock, Folkingham, Lincolnshire, University College; Martindale Cowslade Ward, Markham-square, Chelsea, of St. George's Hospital; Frederick Henry Hume, Angell-terrace, Islington, of St. Thomas's Hospital; John Drust, Gainsborough, of the Middlesex Hospital; Charles Frederick Knight, L.S.A., Brill, Bucks, of the Charing-cross Hospital; Hubert Charles Pickard Masser, Longford Coventry; William Slingsley Mann, Birmingham; James Saltus Conyers, Demerara, West Indies; Joseph Morris, L.R.C.P. Lond. and L.S.A., Studley, Warwickshire, and Henry Gilbert Jackson, Leeds.

Admitted Members on the 11th inst.:—

Messrs. Ralph Alexander Busby, Leamington; James Hamilton Martin, Tregony, Cornwall; Peter Harding, Shrewsbury, and Walter Smith, Bognor, Sussex, Students of University College; Andrew Miller, Highbury, and James Buntes Colthurst, Bristol, of King's College. Joseph William Barrett, Eton, and Samuel Henry Woodgates, M.D. Univ. Glasgow, Hereford, of Guy's Hospital; Albert Louis Peacock, L.S.A., Huntingdon, and Eugene Francis Cronin, M.D. St. And., Clapham, of the Westminster Hospital; Frederick Le Fevre, Milburn, Leiston, Saxmundham, of Charing-cross Hospital; William Augustus Sparting, Norwich, of the London Hospital; Charles Fox Oxley, Pontefract, Yorkshire, of St. George's Hospital; Charles William Ellis Foster, Aldershott; John Williams, Anglesey; John Thomas Caldwell, L.S.A., Knutsford, Cheshire; William Askwith Rudd, Hull; William Astly Sherratt Dykes, L.S.A. Hull; John Albert Eatock, Rivington, near Bolton; William Henry Flint, Buxton, Derbyshire, and Robert Francis Allen, Cloughjordan, County Tipperary.

At the same meeting of the Court Mr. William Anderson (a) of the Royal Marine Artillery, Portsmouth, passed his examination for Naval Surgeon; this gentleman had previously been admitted a Member of the Edinburgh College of Surgeons, his diploma bearing date July 17, 1855.

The following Gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 5th inst., and when eligible will be admitted to the Pass Examination:—

Messrs. E. T. Willoughby, Polyxen Vandagne, M. H. Cantrel, E. L. de Morgan, and T. G. P. Hallett, Students of University College; A. C. Wakefield, David Thomas, A. M. Watson, J. M. MacFarlane, and R. W. Goldie, of Edinburgh; James Taylor, Glasgow; Osmer King, and F. B. Lardner, of Guy's Hospital; J. R. Dunn, Middlesex Hospital; Vaughan Carnley, Hull; W. K. Treves, St. Thomas's Hospital; W. H. Plaister, Bristol; G. A. Kenyon, St. George's Hospital; J. T. Hughes, Aberdeen; Augustin le Rossignol, London Hospital, and F. L. Attwood, St. Mary's Hospital.

The Fellowship.—The following gentlemen have just passed the Preliminary Examination in Classics, Mathematics and French for the Fellowship of the Royal College of Surgeons of England, and when eligible will be admitted to the Final Examination, viz.:—

Messrs. George William Smith, Aytoun-street, Manchester, diploma of membership dated January 26, 1855; John Sebastian Wilkinson, Davies-street, May 15, 1857, and Samuel Edwin Solly, Savill-row, a Student of St. Thomas's Hospital.

Apothecaries' Hall.—Name of gentleman who passed his Examination in the Science and Practice of Medicine, and received a certificate to Practise on Thursday, May 5, 1864:—

Thomas Henry Knott, Guy's Hospital.

As an Assistant:—

John Evans, Cardiff.

The following gentleman, also on the same day, passed his First Examination:—

James Taylor, Anderson's University, Glasgow.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Compson, J. C., M.R.C.S. Eng., has been elected House-Surgeon to the Leith Hospital, and to the Edinburgh and Leith Humane Society and Dispensary.

Debus, H., Ph.D., has been elected one of the Examiners in Chemistry in the University of London.

Ellis, George Viner, F.R.C.S. Eng., has been elected one of the Examiners in Anatomy in the University of London.

Fairbank, F. Royston, L.R.C.P. Lond., has been elected one of the Surgeons to the Ardwick and Ancoats Dispensary, Manchester.

Farre, Frederick J., M.D., has been elected one of the Examiners in Materia Medica and Pharmaceutical Chemistry in the University of London.

Garrod, Alfred B., M.D. Lond., has been elected one of the Examiners in Materia Medica and Pharmaceutical Chemistry in the University of London.

Guy, William R., M.B., Cantab., has been elected one of the Examiners in Forensic Medicine in the University of London.

Heygate, William Nicholas, M.R.C.S. Eng., has been elected Resident Accoucheur to St. Thomas's Hospital.

Hooker, Joseph D., M.D., Glasg., has been elected one of the Examiners in Botany and Vegetable Physiology in the University of London.

Humble, The Rev. Dr., M.D., M.R.C.P. Lond., has been appointed Medical Missionary at El Carmen, South America.

Livett, Henry W., M.D., has been appointed Hon. Assistant-Surgeon to the 10th (or Wells) Somerset R.V.C.

Miller, W. A., M.D., has been elected one of the Examiners in Chemistry in the University of London.

Odling, William, M.B. Lond., has been elected one of the Examiners in Forensic Medicine in the University of London.

Parkes, Edmund A., M.D. Lond., has been elected one of the Examiners in the Practice of Medicine in the University of London.

Redfern, Professor, has been elected one of the Examiners in Anatomy in the University of London.

Rickards, Walter, M.R.C.S. Eng., has been appointed Resident Medical Officer to University College Hospital.

Sibson, Francis, M.D. Lond., has been elected one of the Examiners in the Practice of Medicine in the University of London.

Smith, William T., M.D. Lond., has been elected one of the Examiners in Midwifery in the University of London.

Stainthorpe, Thomas, M.D., L.R.C.P. Ed., has been elected Medical Officer and Public Vaccinator for the Shotley High District of the Hexham Union, Northumberland.

Thomson, T., M.D., has been elected one of the Examiners in Botany and Vegetable Physiology in the University of London.

West, Charles, M.D., has been elected one of the Examiners in Midwifery in the University of London.

Williams, Caleb, M.D., Aberd., has been elected Consulting-Physician to the York County Lunatic Asylum.

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DEATHS.

COCKE, THOMAS GOLDING, L.S.A., at Chapel-Halstead, Essex, on May 9, aged 57.

COOPER, GEORGE FRANCIS, M.D. St. And., at New Brentford, Middlesex, on May 8, aged 37.

DAWSON, WILLIAM, M.R.C.S. Eng., at Southgate, Wakefield, on April 26, aged 66.

HOWELL, THOMAS, M.R.C.S. Eng., at New Kent-road, London, on May 8, aged 49.

NORMANDY, Dr., at Odin Lodge, Clapham, on May 10, aged 55.

ORTON, RICHARD, M.R.C.S. Eng., at Beeston, Notts, on April 25, aged 24.

UNIVERSITY OF CAMBRIDGE. — The Examinations for Medical and Surgical Degrees will commence on Monday, May 30, at 9 a.m., in the Arts' Schools. Candidates are required to signify the same to the Regius Professor of Physic on or before May 16, specifying whether they offer themselves for the first or second Examination, and to send at the same time their certificates.

THE COLLEGE LECTURES.—Professor Fergusson, F.R.S., will deliver a Course of Lectures in the Theatre of the Royal College of Surgeons "On the Progress of Surgery during the Present Century." These Lectures will be delivered on Mondays, Wednesdays, and Fridays, at four o'clock, instead of Tuesdays, Thursdays, and Saturdays, as heretofore, and commencing on Monday, the 6th proximo.

F.R.S.—Out of forty-seven candidates for the Fellowship of the Royal Society the Council recommend the following fifteen for election at the meeting on June 2:—Sir H. Barkly, Dr. W. Brinton, Dr. T. S. Cobbold, Mr. A. J. Ellis, Mr. J. Evans, Mr. W. H. Flower, Mr. T. Grubb, Sir J. C. D. Hay, Dr. W. Jenner, Sir C. Locock, Mr. W. Sanders, Colonel W. J. Smythe, R.A., Lieutenant-Colonel A. Strange, Mr. R. Warrington, and Mr. N. Wood.

THE LEVEE.—At the levee which was held on Saturday, May 7, the following members of the Profession were presented to H.R.H. the Prince of Wales:—Bennett, Dr. W. R., R.N., Greenwich Hospital, by the Duke of Somerset. Broughton, Surgeon-Major F., Bombay Army, by the Secretary of State for India. Clayton, Mr. Oscar, by Sir Frederick Pollock. Croft, Dr. J. M'Grigor, by Sir Charles R. M'Grigor, Bart. Dalziel, Dr. William F. B., Bengal Army, by the Secretary of State for India. Fogo, Surgeon-Major J. M. S., Royal Horse Artillery, by Dr. J. B. Gibson, C.B., Director-General of the Army Medical Department. Gallagher, Dr. John, R.N., Deputy Inspector-General, on promotion and appointment, by the Duke of Somerset. Miles, Assistant-Surgeon H. C., on appointment to Royal Horse Artillery, by Dr. J. B. Gibson, C.B., Director-General of the Army Medical Department. Ross, Surgeon A. C., M.D., on return from China and appointment to the 92nd Highlanders, by Dr. J. B. Gibson, C.B., Director-General of the Army Medical Department. Ramsey, Mr. Henry, on his appointment by her Majesty to be a member of the Medical Council, by the Earl Granville. Sands, Dr. John Lee, R.N., Greenwich Hospital, by the Duke of Somerset. Toynbee, Mr. Joseph, F.R.S., by the Duke of Argyll. The following gentlemen attended the levee:—Drs. Granville, Alexander Marsden, J. B. Gibson, C.B., and Baines; Mr. John Lovell, etc., etc.

UNIVERSITY COLLEGE, LONDON.—The presentation of prizes to the students of the Faculty of Medicine who stood the best in the class examinations at the close of the Winter Term took place on Monday in the Botanical Theatre of the College. Lord Wodehouse presided. The following were the principal prizes distributed:—Anatomy and Physiology (Professor Sharpey, M.D., F.R.S., Dean).—Gold medal and first certificate, J. Pearson Irvine, B.A., of Galgate, Lancaster; first silver medal and second certificate, James S. Cluff, of Kildare, Ireland; second silver medal and third certificate, Thomas Bailey, of London. Anatomy (Professor Ellis).—Senior Class—Gold medal and first certificate, George O. Spencer; first silver medal and second certificate, Frederick B. Nunnerly; second silver medal and third certificate, Henry Clothier. Junior Class.—Silver medal and first certificate, Gysbert H. Maasdorp, of the Cape of Good Hope. Chemistry (Professor Williamson). — Gold medal and first certificate, Mr. James S. Cluff; first silver medal and second certificate, Russell Forbest Carpenter, of London; second silver medal and third certificate, Charles Graham, of Berwick-upon-Tweed. Practical Physiology and Histology (Professor Harley, M.D.).—Silver medal and first certificate, W. Andrew Stuart. Comparative Anatomy (Professor Grant, M.D.).—Gold medal and first certificate, James S. Cluff. The Principles and Practice of Medicine (Professor Jenner, M.D.).—Gold medal and first certificate, William Snow, of Barnstaple; first silver medal and second certificate, Bryan Holme Allen, of London; second silver medal and third certificate, Marcus Beck. The Principles and Practice of Surgery (Professor Erichsen).—Gold medal and first certificate, Charles Bradley, of Nottingham; first silver medal and second certificate, George Grewcock, of Folkingham. Dr. Fellowe's Clinical Medals.—Gold medal and first certificate, Bryan Holme Allen; silver medal and second certificate, Alexander Bruce, of London. Special Class of Clinical Medicine (Professor Reynolds, M.D.).—First prize (microscope), William Snow; second prize ("Guide du Medicien Practicien," par M. Valleix), Mr. John M. Whitwell, of Kendal; third prize ("Todd's Clinical Lectures"), Bryan Holme Allen.

ROYAL INSTITUTION OF GREAT BRITAIN. — The annual meeting was held on Monday, May 2, William Pole, Esq., M.A., F.R.S., Treasurer and Vice-President, in the Chair. The Annual Report of the Committee of Visitors for the year 1863 was read and adopted. The amount of contributions from members and subscribers in 1863 amounted to £3423; the receipts for subscriptions to lectures were £716. 12s. 6d.; the total income for the year amounted to £5532 10s. 7d. On December 31, 1863, the funded property was £30,107 14s. 11d.; and the balance at the bankers', £1056 14s. 9d., with six Exchequer bills of £100 each. Fifty-five new members were elected in 1863. A list of books presented, amounting in number to 121 volumes, accompanies the report, making, with those purchased by the managers and patrons, a total of 561 volumes (including periodicals) added to the library in the year. Sixty-three Lectures and nineteen Evening Discourses were delivered during the year 1863. Thanks were voted to the President, Treasurer, and Secretary, to the Committees of Managers and Visitors, and to Professor Faraday and the other Professors, for their services to the Institution during the past year. The following gentlemen were unanimously elected as officers for the ensuing year:—*President*—The Duke of Northumberland, K.G., F.R.S. *Treasurer*—William Pole, Esq., M.A., F.R.S. *Secretary*—Henry Bence Jones, M.A., M.D., F.R.S. *Managers*—George Busk, Esq., F.R.C.S., F.R.S.; Warren De la Rue, Esq., Ph.D., F.R.S.; Sir George Everest, C.B., F.R.S.; John Peter Gassiot, Esq., F.R.S.; John Hall Gladstone, Esq., Ph.D., F.R.S.; William Robert Grove, Esq., M.A., Q.C., F.R.S.; Sir Henry Holland, Bart., M.D., D.C.L., F.R.S.; John Lubbock, Esq., F.R.S.; John Carrick Moore, Esq., M.A., F.R.S.; William Frederick Pollock, Esq., M.A.; Robert P. Roupell, Esq., M.A., Q.C.; Major-General Sabine, R.A., D.C.L., Pres. R.S.; the Right Hon. Lord Stanley, M.P., F.R.S.; Joseph William Thrupp, Esq.; Colonel Philip James Yorke, F.R.S. *Visitors*—John Derby Allcroft, Esq.; the Hon. and Rev. Samuel Best; John Charles Burgoyne, Esq.; George Frederick Chambers, Esq.; John George Dodson, Esq., M.P.; Christopher Darby Griffith, Esq., M.P.; Henry Harwood Harwood, Esq.; Thomas Henry, Esq.; Thomas Hyde Hills, Esq.; Harry Mackenzie, Esq.; John North, Esq., the Lord Overstone, M.A., F.G.S.; Edmund Packe, Esq.; the Earl Stanhope, D.C.L., F.R.S., Pres. Soc. Antiq.; George Tomline, Esq., M.P.

POISONING BY PHOSPHORUS.—A case of suspected child murder by phosphorus has lately been brought before a coroner's jury at Llangadork, in Wales. The investigation resulted in a verdict of wilful murder against the child's mother. The symptoms were those of irritant poisoning. It was proved in evidence that the evacuations from the stomach and bowels smelt like brimstone, and appeared to shine in the dark. The post-mortem appearances were characteristic of acute gastritis, with softening and partial destruction of the mucous and muscular coats of the stomach. As the chemical examination for phosphorus is a matter of great scientific interest, we subjoin in full the evidence given by Dr. Herapath before the coroner's court. Dr. Herapath deposed: Dr. Prothero, of Llandilo, brought and delivered into my own hands—first, a small bottle, well secured by bladder, etc., containing two teaspoonfuls of thick gruelly fluid, which were all the contents of the child's stomach; second, a large stone jar, containing the liver, heart, lungs, and kidneys of the same infant; third, a smaller stone jar, containing the stomach, which had been opened, and the large and small intestines; fourth, the history of the case and symptoms exhibited led to the suspicion of phosphorus poisoning, the body having been buried

since March 6, and the death occurred on the 4th—a period of twenty days. I examined the stomach, and this organ had been opened along the lesser curvature. The œsophagus was still attached to it. Numerous linear ulcerations were upon the mucous surface of the œsophagus, with redder edges, more numerous at the cardiac end. The greater cul de sac of the stomach and its cardiac extremity had numerous bright red inflamed spots and patches, the mucous membrane softened and destroyed by ulceration or erosion, the viscus distinctly thinner at those spots than at other places. This appearance denoted acute inflammation of the stomach of recent date, very like the effects of arsenical poison. The whole viscera were very fresh and well preserved, which rather favoured the same idea. The duodenum, the large and small intestines, had other reddened spots and patches, but of less severity, whilst Peyer's patches were somewhat enlarged. The rectum was more reddened than any other portion of the intestinal mucous membrane. The chemical examination of the viscera, etc., is as follows:—First, they were *seriatim* removed with great care on clean porcelain vessels to the interior of a photographic camera, and examined in the dark for evidence of luminosity. None presented itself, however, and the contents of the viscera were equally devoid of any such appearances. Second, the contents of the stomach were treated with pure ether. The etherial fluid decanted and filtered reduced the salts of gold and silver in such manner as a very minute trace of free or inflammable phosphorus would produce. Secondly, the residual acid fluid was next tested by Mitcherlich's plan, by distillation with sulphuric acid, but without any corroborative evidence of the presence of phosphorus. Thirdly, the same acid fluid was now tested by Scherer's distillation with zinc, and the evolved gas, chiefly hydrogen, passed through ammoniacal nitrate of silver; a black precipitate resulted, too minute in quantity to further test for phosphorus. This gave doubtful evidence of phosphorus existing as phosphorous acid in the contents of the stomach. 4th. The examination of the stomach's contents gave indications of phosphorus in the free state by the ether test, and probable evidence of phosphorous acid by Scherer's mode of testing for phosphuretted hydrogen. 5th. The whole intestines having been slit up for examination, the contents of the large intestine were carefully collected, amounting to two drachms of yellow pasty fœcal matter. This was first tested by Mitcherlich's process, but no evidence of phosphorus in the free condition resulted. The acid fluid produced was then tested by Scherer's process as before for phosphorus in the oxidised form of phosphorous acid; and the resulting black precipitate oxidised by nitric acid, and tested by a magnesian salt and ammonia. The characteristic crystals of phosphate, ammonia, and magnesia were obtained, which proved the existence of phosphide of silver in the black precipitate, which probably arose from the presence of phosphorous acid in the contents of the rectum, cœcum, and colon, in small quantity. 6th. The contents of the small intestines were also removed carefully, and tested in the same way. Similar results were obtained, viz., the absence of free or combustible phosphorus, but the presence of phosphorous acid. 7th. One portion of the contents of the duodenum was tested by the tincture of iodine, for the presence of starch, but no blue reaction exhibited itself; whereas a reddish port wine colour was exhibited, which appeared to be due to the presence of dextrine, a substance into which starch is converted by digestion. 8th. In another portion of the contents of the small intestines, I endeavoured to destroy the organic matter of the fœcis by nitric acid, and expected to find the Prussian blue colouring matter, but failed in obtaining any. 9th.—The whole of the stomach, small and large intestines, were dissolved in the dark by means of hydrochloric acid, absolutely pure, but no luminous appearances were exhibited. These phenomena would have been observed if a certain proportion of inflammable phosphorus had been present; it is a test nearly as good as Mitcherlich's. 10th.—The acid solution, filtered from undissolved matters, were tested in a gas evolution bottle and with certain apparatus attached, which enabled me to test at one operation for arseniuretted hydrogen, antimoniuretted hydrogen, sulphuretted and phosphuretted hydrogen. There was negative evidence of the three former gases, but the black precipitate resulting was proved to be phosphide of silver, and therefore demonstrated the existence of an appreciable quantity of oxidised phosphorus existing in the tissues of the viscera as phosphorous acid—the same product as exists after the phosphorus paste has been exposed to the air. 11th.—A large portion of the liver was dissolved and treated in a similar manner, by which a further quantity of phosphide of silver was obtained, from which crystals of phosphate, ammonia, and magnesia were obtained and examined by the microscope. Results:—Evidence of the presence of free phosphorus in minute quantity was obtained from the contents of the stomach; whilst evidence of phosphorous acid, the lower oxide of phosphorus, was obtained by Scherer's test, as modified by myself from the contents of the stomach, and of the large and small intestines; whilst a still larger quantity of the same phosphorous acid was shown to have been absorbed or imbibed by the tissues of the stomach and intestines and to be present in the liver; whilst the presence of dextrine in the intestinal canal shows that starch had been present there during life. I infer that phosphorus was probably the cause of the acute inflammation of the morcous surface of the stomach and intestines, of which the infant died.

THE ordinary monthly meeting of the Odontological Society was held on the 2nd inst. at Soho-square, Edward Saunders, Esq. (President), in the chair. Models of remarkable cases were presented by Messrs. Ibbeston, Cartwright, Hulme, Fox, and Brunell. An improved "bite" was sent by Mr. Balkwill, of Plymouth, and Mr. Catlin said he would test it, and report upon it at a future meeting. Mr. Kirby said he had used a somewhat similar instrument for two or three years, and had found it to answer perfectly. A paper was read by Mr. Cartwright, entitled "Reflections on the Cause and Treatment of some Forms of Irregularity," he defined irregularity to depend on the want of space in the bone of the jaw, and not so much on the teeth. At the close of a very elaborate paper, he said his object was to draw the attention of the Society to the notion that it was next to heresy to extract teeth for the cure of irregularity, and to urge them not to accept that proposition without due consideration, above all, not to assist in propagating a questionable theory by assenting to the idea that the temporary teeth had to do with the eventual size and shape of the jaw, and that their removal was a source of contraction, or that it was bad practice to sacrifice permanent teeth in order to make room for the regular placement of the rest. The science of dental Surgery had suffered by the ill-judged way in which the term "contraction" was freely paraded, and an old, correct, and honest practice had been unjustly questioned by the introduction of an idea which was in its working not successful when weighed in the scale of experience. Mr. Cartwright illustrated his paper by a large number of models and drawings, and at the close was greeted with a hearty round of applause. Mr. Ballard said he attributed a great deal of the deformity existing in the upper and under jaws of children to the early acquired habit of thumb-sucking, and also tongue-sucking, the jaws being pushed outwards by the continued pressure. He said the habit not only caused the irregularities in the jaws, but also seriously affected the health of the patient, in one instance that had come under his notice causing death. It was to this habit that he attributed many of the diseases of children, the origin of which was imperfectly understood. The further discussion of the paper was adjourned until the next meeting.

A CASE was tried on Wednesday, May 11, at the Central Criminal Court, which illustrates the hopelessness of getting juries to convict illegal practitioners, even upon strong evidence. A man of the name of Stevens, who was formerly a grocer, and is now a "Medical botanist," of High-street, Whitechapel, was charged with the manslaughter of a lad named William Probee. The lad was suffering from inflammation of the hip-joint, for which Stevens prescribed large doses of cayenne pepper. Dr. Letheby and Mr. Gant proved that the patient died of exhaustion following inflammatory fever and gastritis. The stomach was reddened and inflamed, and considerable quantities of cayenne pepper were found in the stomach and in the medicine the boy was taking. Nevertheless, the jury acquitted the prisoner.

THAT the General Prison for Scotland is conspicuous for its exemption from epidemics, and the city of Perth is subject to an excessive mortality from epidemics. . . . We are driven to the conclusion that cleanliness, good dietary, regimen, —perhaps, more than all, the adequate drainage and ventilation introduced by those who had the superintendence of the prison at its construction,—in fine, excellent hygienic and sanitary police have placed the prisoners of the General Prison in a condition of body and circumstances which are prophylactic, and act as preventives to the visitations of zymotics. In regard to the city, the very opposite is the case. Its *locale* is evidently bad; it is surrounded on all sides by

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heights, among which it is shut out from free ventilation; it is frequently enveloped in fogs and dense vapour; the drainage is almost wholly defective; its streets are filthy; instead of having underground drains—except in one principal street—the site of the Fair City is generally honeycombed with sinks and cesspools, so that at all times the air is loaded with impurity. We know that filth and epidemic fevers attend upon each other as cause and effect, and the insanitary condition of the citizens is such as at any time to predispose to the ravages of epidemics.—*J. Bruce Thomson, in the Edinburgh Medical Journal.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Coghlan's paper shall appear as soon as possible.

Portsdown.—We received a letter, but no newspapers. We are always glad to advocate the claims of the Irish Dispensary officers.

We are assured that small-pox does exist amongst the garrison at Portsmouth, spite of any official denial of the same.

We regret to learn that a paragraph copied into our last number from the *News*, which announced that Dr. Farr was likely to possess a new office with salary of £2500, is not well founded.

Hospital Salubrity.—The small-pox has appeared in the Parisian Hospitals,—131 cases during the month of March; 25 per cent. at the Lariboisiere; 8 of the whole fatal. M. Hérard says:—"One or two small-pox patients came into my two wards, and a petty epidemic immediately appeared, and attacked five or six men and as many women in succession, all vaccinated." The wards are crowded, those for the men containing eight, and those for the women four, supplementary beds. See the Report of the Société Médicale des Hôpitaux de Paris, in *L'Union Médicale* of May 10.

"*Epsom College.*"—The *Guardian* newspaper contains the following intelligence:—"Ascension Day was observed as usual at *Epsom College*. The rain prevented the hymn, 'Christe Rex Altissime,' being sung from the tower, but the afternoon was favourable to the athletic sports. Prizes were awarded for flat and hurdle races, gymnastics, jumping, rackets, quoits, bowling, and throwing the cricket ball, the most remarkable being a silver cup to Little, for a mile race completed in 5 minutes 20 seconds, a telescope to Tait and Pritchett for a fine display of gymnastics, and a silver pencilcase to Woodhouse for a long jump of 16 feet 4 inches. Full choral service was performed in the chapel at eleven and half-past five, the head master preaching in the morning. The prizes were distributed by Mrs. Thornton in the evening before a number of visitors, and the day ended with the performance of several glees by the choir." We congratulate the Council upon the healthy, religious, and gentlemanly tone of these proceedings. But it is not every one who would know that the Institution so commended is the Royal Medical Benevolent College. Doubtless "Epsom College" is a shorter and a better name; and there *is* a good deal in a name, spite of what "the divine Williams" may say to the contrary. When Tom Smith rises in the world, nobody objects to his becoming Thomas De Smythe, Esq., and visiting all the county, but then Tom must not cut his poor relations. It is a very good thing to provide a gratuitous education for the orphan and destitute children of deceased brethren, but a much better thing to ease the burdens of living men, and to enable the man who is toiling along with a large family and small income to get a thorough "Harrow or Eton" education for his sons on easy terms. All political science shows that the best charity is that which helps those who help themselves. Supposing that an education costs £40, it is greater charity to supplement with £15 the means of those who can pay £25 only, than to give the £40 outright to a small number. There are a good many things to be done on the level ground before we ought to sing a hymn on the top of a tower.

Chloroform and Eau de Cologne.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Your correspondent, "C. R.," will oblige one of your readers by specifying the proportion of Eau de Cologne and chloroform which he uses in midwifery practice, and the periods of the labour at which it is given.

I am, &c.

A. B.

Suggestions to Ovariotomists.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Any suggestion for relieving symptoms frequently present during the operation of ovariotomy, and facilitating the after-treatment of the patient, is worth attention at the present time.

The syncope, collapse, vomiting, etc., etc., during the tapping for ascites, and more especially in ovariotomy, are due to a well-recognised cause, namely, the quick removal of pressure upon, and the consequent dilatation of, the large abdominal vessels. In the former operation the gradually-tightened bandage gives support to those vessels; in the latter, the hands of the assistants, pressing upon the epigastrium and flanks of the abdomen. These last are uncertain and variable in strength, and often in the progress of the operation only partial.

I have to suggest the steady uniform pressure of diffused weight, as of that of a half-filled bag of shot, confined equally in interlocular spaces throughout the bag. This to be placed upon the epigastrium as soon as the trochar is passed into the cyst, and moved lower down upon the abdomen as the fluid or wall of the cyst is withdrawn, other bags being at hand, if necessary, to proportion the pressure.

I question whether any system of after-bandaging is adequate to produce so much direct pressure upon the abdominal vessels as that which may in this way be obtained,—a pressure which, both during and after the operation, should be correspondent to that of the cyst the operator is unloading or has removed.

The number of deaths after ovariotomy, recorded as due to hæmorrhage into the peritoneum, is large. Persistent pressure upon the abdominal aorta in controlling that cause may be worth considering, as also the repressing of peristaltic action.

The present system of bandaging the abdomen after the operation is insecure as to uniform pressure; it takes time, necessitates some movement of the patient, entails additional exhaustion, and, if padding has to be used, often proves cumbersome inconvenient body clothing. Diffused pressure upon the abdomen may be applied through the bed-clothes, provided the patient's body be kept supine.

I beg to make these suggestions for the consideration of ovariotomists.

I am, &c.

Northampton, May 2. John H. Webster, M.D.

COMMUNICATIONS have been received from—

Harveian Society; Mr. F. Broughton; General Council of Medical Education and Registration; Dr. John H. Webster; Apothecaries' Hall; Mr. J. Clarke; Mr. James R. Lane; Dr. James McCraith; Mr. W. H. Morris; Mr. J. Pearson Irvine; Mr. Timewell; Royal Institution; Dr. Devenish; Dr. John Coghlan; Dr. Fraser; Odontological Society; The Pharmaceutical Society; Royal Medical Benevolent College; Mr. Alexander Muir; Dr. Humphrey; The Rev. Dr. Humble, M.D.; Dr. Thomas Stainthorpe.

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 7, 1864.

BIRTHS.

Births of Boys, 967; Girls, 912; Total, 1879.
Average of 10 corresponding weeks, 1854-63, 1841·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	651	666	1317
Average of the ten years 1854-63	607·2	584·5	1191·7
Average corrected to increased population..	..	..	1311
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	1	1	3	..	13	9	2
North ..	618,210	3	13	9	1	6	10	3
Central ..	378,058	2	15	8	3	15	11	3
East ..	571,138	..	13	14	3	12	14	2
South ..	773,175	3	13	6	2	15	21	8
Total ..	2,803,989	9	55	40	9	61	65	18

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·754 in.
Mean temperature	52·1
Highest point of thermometer	69·6
Lowest point of thermometer	42·8
Mean dew-point temperature	46·0
General direction of wind	Variable.
Whole amount of rain in the week	0·87 in.

APPOINTMENTS FOR THE WEEK.

May 14. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

Royal Institution, 3 p.m. Prof. Frankland, "On the Metallic Elements."

16. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

17. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Anthropological Society of London, 8 p.m. Meeting.

Pathological Society, 8 p.m. Meeting.

Royal Institution, 3 p.m. Professor Marshall, "On Animal Life."

18. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m., Middlesex, 1 p.m.; London, 2 p.m.

Hunterian Society, 8 p.m. Mr. Peter Y. Gowland, "Cases of Obstinate Constipation Relieved by Division of the Sphincter."

19. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m., Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Harveian Society of London, 8 p.m. A Discussion "On Carbuncle and Boil."

Royal Institution, 3 p.m. John Hullah, Esq., "On Music (1600-1750)."

20. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. James Nasmyth, Esq., "On Day and Night in the Moon."

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JANUARY 11th, 1864.

BROWNE AND DAVENPORT versus FREEMAN.

"It was fully proved and established in Court, before Vice-Chancellor Sir W. P. Wood, that Dr. John Collis Browne was the Discoverer of Chlorodyne.

"The Vice-Chancellor observed that Dr. J. Collis Browne's Chlorodyne was known before the Defendant 'Freeman' had ever thought of using the word; that the Defendant's conduct led to a very strong suspicion that there was a gradual course of proceeding on his part to mislead people into the belief that, when they bought his medicine, they were purchasing Dr. J. Collis Browne's Chlorodyne; and that, if the Plaintiffs could show that any one had actually been deceived, an Injunction would be granted."—*Times*, January 12.

Affidavits from eminent Physicians and Surgeons of the Metropolitan Hospitals proved, beyond doubt, that Dr. J. Collis Browne was the discoverer of Chlorodyne; that they prescribe it largely, and invariably mean the original Chlorodyne of Dr. J. Collis Browne.

An Affidavit by Mr. Warington, Chemical Operator to the Apothecaries' Company of London, also established the fact, that Dr. Browne was the inventor of Chlorodyne; that the Company receive large orders for the supply of Chlorodyne for the Public Service, Hospitals, Merchants, and the Profession; and that, when Chlorodyne is ordered, they invariably supply Dr. J. C. Browne's.

Affidavits from Messrs. John Bell, Pharmaceutical Chemists, 338, Oxford-street, and several leading Wholesale Druggists of London, to the same effect, and that, when Chlorodyne is ordered, they invariably supply Dr. J. Collis Browne's.

Sole Manufacturer—J. T. DAVENPORT, 33, Great Russell-street, Bloomsbury, London.

In Bottles, 1 oz, 3s.; 2 oz., 5s.; 4 oz., 8s.; 10 oz., 15s.

Neither Physician nor Surgeon in plaintiff's suit even mentioned Freeman's compound; so much for the *truth* of its being the *preferred* medicine, as stated by the defendant. It is equally untrue that the Vice-Chancellor intimated in the slightest degree that the defendant had the right to the sole use of the prefix Original, as quoted in his advertisement in the "Pharmaceutical Journal," March 1, 1864.

The observations of the Vice-Chancellor, as reported in the "Times," speak for themselves.

Each Affidavit from Physicians, Surgeons, and Chemists affirms that Dr. Browne's Chlorodyne was known to them in 1855; whereas the Defendant "Freeman's" Compound was not heard of until 1859, after the Original Chlorodyne had obtained world-wide fame.

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ORIGINAL LECTURES.

COURSE OF
LECTURES
ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D.,
Professor in University College, and Assistant-Physician to University College Hospital.

LECTURE IV.

URIC ACID $C_{10}H_4N_4O_6$; atomic equivalent, 168.

CHEMISTRY.

Uric acid is a white crystalline, feebly-acid, (b) tasteless, organic substance; insoluble either in alcohol, or in ether, and only sparingly soluble in water. 2000 parts of hot, and 11,000 parts of cold water are required to dissolve one part of uric acid. It is readily soluble in strong sulphuric acid, without undergoing decomposition, as may be proved by its speedy re-precipitation on the simple addition of water.

By dry distillation uric acid is transformed into urea, cyanuric acid, hydrocyanic acid, carbonate of ammonia, aloxan, and an oily coal. Uric acid unites with bases, such as soda, potash, and ammonia, and forms with them crystalline urates.

Both uric acid and its salts are easily recognised by yielding the beautiful purpurate of ammonia (murexide of Liebig) when treated with nitric acid, and ammonia. The best way of applying the test is as follows:—Place a little of the suspected substance on a platinum spatula or piece of white porcelain, moisten it slightly with strong nitric acid and heat the mixture gently over a spirit lamp, till the excess of acid is driven off. If uric acid or any of its salts be present the dry mass assumes, on the addition of a few drops of liquor ammoniæ, a brilliant crimson colour, and on the addition of caustic potash a purplish blue tint.

In employing this test the only substances likely to be mistaken for uric acid are tyrosine, hypoxanthine, and xanthoglobuline, which, according to Scherer, gave a similar reaction. With these substances, however, the colour is more of a yellow than a red, and after incineration there is left a black glistening stain on the platinum whereby they are distinguished from uric acid. Caffeine is said to give the murexide reaction, but it is a substance not likely to be confounded with uric acid.

Seeing that the murexide test is not always to be relied on in the presence of tyrosine, hypoxanthine, and xanthoglobuline, Schiff recommends freshly precipitated carbonate of silver to be employed. Nitrate of silver precipitated by carbonate of soda, one c.c. of which gives a grey colour with $\frac{1}{1000}$th gramme of uric acid. As chlorides and phosphates disturb the reaction, a few drops of nitrate of silver are to be added to the suspected liquid, quickly filtered, and then the carbonate of soda solution added; the quantity of carbonate of silver precipitate ought not to be too great.

The reaction can be easily shown on filter paper in the following manner:—Dissolve a little uric acid in carbonate of soda or potash, put a drop or two on paper, and add nitrate of silver, a distinct grey stain instantly appears, thereby indicating the presence of uric acid. Tannic acid is the only other substance which gives the grey colour with carbonate of silver, and it can be distinguished from uric acid by the chloride of iron turning it black.

Quantitative Analysis.—To two hundred cubic centimetres (6·45 oz.) of urine add twenty c.c. of strong hydrochloric or nitric acid(c). Stir the mixture, and set it aside in a cold place for twenty-four or thirty-six hours. By the end of this time the uric acid will have crystallised at the bottom, on the sides, and at the surface of the liquid, which will have assumed a dark colour in consequence of the liberation of the urohæmatine by the acid. Collect the crystals on a small filter, wash them slightly with alcohol, acidulated with a few drops of hydrochloric or nitric acid, dry and weigh them.

The amount found is the quantity of uric acid contained in 200 c.c. of urine. In order, therefore, to find how much has been passed in the twenty-four hours, we say if 200 c.c. of urine contain x grammes of uric acid, what will 1000 c.c. of urine (or the amount passed in the twenty-four hours) contain?

$$\frac{x \times 1000}{200} = \text{to the quantity of uric acid passed in 24 hours.}$$

We have next to consider the physiological and pathological relations of uric acid.

PHYSIOLOGY.

Uric acid is found in the liquid urines of the omnivora and carnivora, as well as in the solid urines of serpents, birds, and insects. Almost the only urine in which uric acid does not occur is that of the herbivora. It exists in urine, combined with soda, potash, and ammonia. Its quantity varies greatly in the urines of different species of animals. For example, while that of serpents is almost entirely composed of it, that of the carnivora contains but a very small proportion(d). Human urine stands between the two; but even in it the quantity of uric acid seldom exceeds one part per 1000 (Lehmann). Its relative proportion to that of urea is generally put down as 1 to 30.

During health uric acid is never absent from human urine, though the quantity varies very much according to the kind of food. In disease there is occasionally none to be detected.

Quantity of Uric Acid passed during Twenty-four Hours by Healthy Adults.

Diet.	Name of observers. Lehmann. grammes.	grains.	The Author. grammes.	grains.
Animal . .	1·478 =	22·9	1·250 =	19·3
Mixed . .	1·183 =	18·3	0·755 =	11·7
Vegetable . .	1·021 =	15·8	0·500 =	7·7
Non-nitrogenised	0·735 =	11·3	0·340 =	5·27

The above tables show that the quantity of uric acid daily excreted is greatly influenced by our food. It further appears that the amount depends on conditions analogous to those influencing the quantity of urea.

It will be observed that, although the relative proportion of uric acid passed by Lehmann and myself on different diets is tolerably uniform, yet the absolute amount is quite different. The same law seems to be applicable to uric acid as is applicable to urea, namely, that the daily excretion is much influenced by national peculiarity.

The following table illustrates this:—

On mixed diet.	grammes.	grains.	Name of observers.
Germans .	0·939 =	14·554	Kerner.
Englishmen .	0·755 =	11·702	The Author.(c)
Frenchmen .	0·510 =	7·905	Becquerel.

While the influence of the kind of diet on uric acid and urea is much the same, that of the kind of drink is very different. Thus, port wine and beer increase the elimination of uric acid, whereas tea and coffee diminish it, which is the reverse of what happens with urea.

It is curious that the urine of human infants while at the breast is devoid of uric acid (Bird), while that of sucking calves possesses it (Wöhler). It seems, indeed, as if the natural order of things was reversed, for infants' urine is said to contain an excess of hippuric acid, and calf's urine none. Some may doubt the fact regarding the absence of uric acid from the urine of the human infant on account of the circumstance that uric acid calculi are not at all uncommon in very early life. This, however, arises from pathological conditions of the system, while the other is supposed to be due to physiological states. I have twice tested infants' urine—one aged ten days, the other eight weeks—for uric acid, and found none.

Climate has a most striking effect on the quantity of uric acid passed in the twenty-four hours. Nearly double the quantity is excreted in winter as in summer. Dr. G. Pringle, while working in my private laboratory, found that he passed, during summer, 0·734 grammes (11·37 grains) of uric acid in the twenty-four hours; and during winter, 1·39 grammes (21·54 grains).

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—ED. *Med. Times and Gaz.*

(b) It is so feebly acid that it is unable to redden litmus.

(c) Thudichum prefers the nitric, as uric acid is even less soluble in it than in hydrochloric acid.

(d) I have frequently found it absent from dog's urine, when the animals were entirely flesh fed. In these cases the urea was always very abundant.

(e) Parkes puts the mean of uric acid passed by adults during the twenty-four hours at 0·555 grammes = 8·56 grains, and the proportion as 0·059 for every pound of bodily weight.

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The seat of origin of the uric acid in the animal economy is still a question *sub judice*. One thing is, however, certain, namely, that it is not formed by the kidneys; in fact, I don't believe that the kidneys form any of the substances they excrete.

Uric acid, like urea, can be detected in the blood, but whether or not it is formed in the circulation or in the tissues it is exceedingly difficult to say. It has been detected in the brain, liver, lungs, and spleen, and, as it occurs in the spleen in the greatest quantity, many regard that organ as the chief seat of its formation. I may add that, like urea, its source appears to be twofold; first, the disintegration of the nitrogenised tissues; and, secondly, the transformation of the excess of albuminous food.

Urea appears to stand in relation to uric acid as a substance belonging to a higher grade of metamorphosis; for whatever accelerates oxidation increases the amount of the eliminated urea, and diminishes that of the eliminated uric acid; while whatever interferes with oxidation decreases the urea, and increases the uric acid in the urine. It has already been shown that urea can be artificially formed from uric acid out of the body, (f) as well as that uric acid is convertible into urea in the body of the rabbit. It may be here added that Stockris has found that the same thing occurs in the human body (g).

Although, as before said, uric acid is always present in normal human urine, it is never spontaneously deposited from it in a free state. And this arises from the circumstance that all the uric acid in healthy urine is combined with alkaline bases in the form of soluble salts, urate of soda, urate of potash, and urate of ammonia.

In normal urine these salts are all in a state of solution. But whenever from any cause they chance to be in excess, or the water of the urine to be in diminished quantity, they are deposited in an amorphous state, and as such commonly receive the name of urates or lithates. Bird, Bowman, and mostly all the writers of their time, thought that urates consisted in general of the urate of ammonia. Liebig, Heintz, and Lehmann have, however, shown that they most frequently consist of the urate of soda, which is readily distinguished from the urate of ammonia by its much greater solubility. If, for example, a small quantity of urine containing the deposit be put into a test tube, and a gentle heat applied, as soon as the temperature of the liquid gets up to, or a little beyond that of the human frame (100° F.), the sediment, if consisting of the urate of soda, is redissolved, and the urine becomes quite clear. If, on the other hand, the deposit be composed of the urate of ammonia, the liquid requires to be heated to near the boiling point before the sediment entirely disappears. On rising in the morning, if I find a deposit in my urine, I can in general readily tell whether or not it is composed of the urate of soda by observing if it disappears on the addition of the warm, freshly-passed urine.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CASES OF SOFTENING OF THE BRAIN AND SPINAL CORD.

By JOHN W. OGLE, M.D., F.R.C.P.,
Assistant-Physician to, and Lecturer on Clinical Pathology at, St. George's Hospital.

(Continued from page 583.)

Case 16.—Richard W., aged 65, admitted February 6, 1856, old sailor and gin drinker, affected by acute dementia, admitted on account of eczema and sores on the leg. Erysipelas came on, and he died February 17.

Post-mortem Examination.—Cranium: Viscid, sub-arachnoïd fluid existed; cerebral membranes natural; arteries of brain very atheromatous; brain generally very softened. Other organs not examined.

Case 17.—Sarah H., aged 47, admitted May 6, 1856. Was an out-patient for palpitation some time. On the 5th had a fit, and on 6th had three more. In the last seizure mouth said to be drawn to one side; was quite unconscious for a long time, and afterwards the speech became much affected.

On admission, was almost quite comatose; occasionally articulating a few words. Breathing stertorous; left cheek flapping loosely at each expiration. Heart's action very irregular. Pulse weak and intermittent. Mouth slightly drawn to the *right*. Motor power in *left* hand much diminished.

Ordered leeches to temples: blister to neck, and mercury every few hours.

On the night of the 7th she was delirious, requiring restraint. More comfortable next day, and able to swallow easily. The bowels very open. She, however, relapsed into coma, and died on the 9th.

Post-mortem Examination.—Cranium: Cranial bones thicker than usual. Cerebral convolutions flattened. Only slight ventricular fluid. Upper parts of both hemispheres natural, but the remainder of the *right* hemisphere, and especially the middle lobe, was soft and diffluent. In the middle lobe on *right* side small (four) circumscribed patches of the size of filberts existed, formed of punctiform extravasations of blood, and one also existed in corpus striatum. Thorax: Heart rather hypertrophied. Left auricle dilated. Abdomen: Kidneys rather granular. Other organs natural.

Case 18.—Wm. T., aged 53, admitted September 11, 1856. Of drunken habits. Had a fall producing compound fracture of right leg. Became very excited after admission, and on the fourth day decidedly delirious, though not exactly as if from drink, as he slept a little, and no tremors or sweating existed. Tongue clean. Pulse rapid and small. Skin very yellow. No rigors. Much abdominal flatus. Excitement like that of madness came on, and the fracture much disturbed. Became very noisy and talkative. Put on good diet and brandy, with tinct. opii, mxx., 3 tis horis.

No rigors came on at any time, but he gradually sank and died September 27.

Post-mortem Examination.—Clotted blood and fibrinous coagulum decomposing in the femoral vein. Abdomen: Kidneys were cysted. Thorax: Lower parts of lungs breaking up by slight pressure. Cranium: Much sub-arachnoïd and ventricular fluid. Anterior of the *right* corpus striatum was very softened, and of a reddish colour, strongly contrasting with neighbouring parts in colour and consistency. Great rigidity, with much atheromatous deposit in vessels at base of brain, but vessels connected with softened part of brain not apparently affected.

Case 19.—Eliza B., aged 19, admitted July 1, 1859. Servant-of-all-work. Had had rheumatic wandering pains, and uneasiness at epigastrium. Right ankle swollen and painful. Systolic bruit at apex of the heart. Pulse quiet. Tongue clean. Bowels open. Catamenia absent about three months. Got better under colchicum and alkalies.

Became suddenly seized with oppression of breathing, and a very weak intermitting pulse. Loud bruit heard at the base of the heart with the first sound, as well as at the apex. Pupils very contracted.

Ordered calomel and opium 6 horis, and empl. lyttæ to the neck.

A second fit of the same kind occurred, and for the next four days she was only partially conscious. Calomel continued, empl. lytt. rg. cordis.

Pulse intermittent every sixth beat, and the murmurs very loud. Much headache complained of. Exocardial friction sound became audible, but quickly departed. Loss of power gradually came on in the *left* side, and afterwards complete hemiplegia. Delirium came on, and involuntary evacuations; also bed sores. Subsequently the pain became great at back of neck, and she screamed when raised.

In great agony until death, which occurred July 31.

Post-mortem Examination.—Petechial spots found over abdomen, and in the mucous membrane of larynx and trachea. Cranium: Brain wet. Blood extravasated in pia-mater between convolutions. Corpus striatum on *right* side very much softened, down to base of brain. Termination of the right carotid and the posterior communicating arteries surrounded by much fibrinous deposit, *and these arteries filled with clot, discoloured in parts.* In the arteries at the base of the brain near the softened parts the coagula *contained pus and "exudation" corpuscles.* Thorax: Old pericardial adhesions. Small abscess in the wall of the left ventricle of heart, in connection with partial softening of fibrinous deposit. *Mitral valve with much fibrinous deposit attached, as also the lining of left auricle and aortic valve.* Lungs congested, partly

(f) Ranke obtained urea from uric acid by simply acting upon it at a high temperature with alkali in presence of a ferment.

(g) In order to ascertain whether uric acid becomes transformed into urea in the human body, Stockris, whilst maintaining a uniform diet, took several doses of urates, carefully determining, before and after the experiments, the amounts of uric acid and urea in the urine. He concludes from the results obtained, that uric acid becomes metamorphosed into urea within the organism, and the seat of the metamorphosis he believes (from experiments on the liver of animals) to be the liver.—Archiv. v. Donders, u. Berlin, vol. ii., part iii., p. 260.

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sinking in water. Abdomen: Fibrinous masses found in the spleen and kidneys. Other organs natural.

Case 20.—Elizabeth J., aged 43, admitted February 11, 1857, was walking two weeks previously and became giddy, and saved from falling by passers-by. Recovered in a few minutes, but could not say where she lived. Found her way home, and next day could not rise from her bed, and was unable to move the *right* leg or arm.

Admitted in this state; quite rational, but speech rather hesitating. Tongue coated; pupils equal, acted freely; bowels costive. Ordered cal. and senna, also salines and tincture of bark every four hours; afterwards iodide of potassium (gr. iij.) was added. Subsequently severe pain in the head came on, and severe dyspnœa, which was relieved by ether.

March 3.—Seized with an epileptic fit lasting five minutes, and she lay quiet for half-an-hour. Was able to talk, and whilst doing so became convulsed and shortly afterwards died.

Post-mortem Examination.—Slight œdema of legs existed. Thorax: *Tough fibrinous granulations were attached to the auricular surface of the mitral valve of heart and lining of left auricle.* In right auricle was a large mass of firm, blood-stained fibrin, chiefly in appendix. Abdomen: Kidney mottled with yellow material amidst the urinary tubes. Cranium: Brain rather softened throughout; in *left* optic thalamus was a small patch of softening of a slight yellow tinge, and presenting numerous "exudation-corpuscles." The blood-vessels examined microscopically contained dark streaks (fatty) along their walls. In other parts of the thalamus which were not softened similar exudation-corpuscles also existed.

Case 21.—The patient, aged 34, was admitted into the Hospital on December 21, 1859. In the previous July he had had a blow over the left eye, since which time it had remained partially closed. Six weeks before admission he complained of acute pain in the lower part of the dorsal region, and two weeks afterwards he had numbness of the lower limbs, but he followed his work until two days before admission, when he walked very awkwardly, and had a sense of numbness in, but no very marked want of sensibility of, the legs. There was pain in the lower part of the dorsal region of the spine, and some difficulty in passing and in "holding" the urine. Under the use of large doses of potass. iod. and tincture of cantharides and bark, he regained power so as to walk much better; but on January 9 he was suddenly attacked with giddiness, and on the 12th became delirious. The speech became indistinct, and vomiting followed, the pupils remaining natural. He became violent, and passed the evacuations in bed, and afterwards was quite insensible. Ptosis of the right eye then showed itself, and the left eye, which was closed when he was admitted, became quite open. Before his death, which occurred on February 12, the ptosis on the right side disappeared.

Post-mortem Examination.—Cranium: There was extensive softening of the cortical part of the cerebral hemisphere. The part affected was at the base near the fissure of Sylvius. The fornix was also much softened. *This was in connexion with obstruction*, by fibrinous plug, of the middle cerebral artery in the *fissure of Sylvius, near the "locus perforatus anticus" on the left side.* There was much old thickening in the sub-arachnoïd tissue and adhesion of the arachnoïd and pia-mater, and the arteries at the base of the brain generally were atheromatous. In this case, unfortunately, the cerebral organs only could be examined.(b)

Case 22.—Wm. P., aged 42, admitted May 25, 1859. Had had severe sore-throat; and on admission it was found very red. Slow and muddled in manner; hesitated, with a vacant look; left pupil smaller than the right one. Tongue tremulous; pulse 112, feeble. Ordered ammonia, salines, and brandy; subsequently iron and columba. Lost his memory, and became subject to delusions. Left pupil became much smaller than its fellow. Morphia was administered. Subsequently coma came on, and both pupils became contracted, the left mostly so; limbs constantly twitching. Pulse became rapid, and death occurred June 4.

Post-mortem Examination.—Cranium: Brain-vessels congested; sinuses full of blood; slight softening of corpus callosum and septum of ventricles. Thorax: Pleural adhesions existed, and also red hepatisation of the lower part of the right lung. Abdomen: Kidneys congested; other organs natural.

(b) See St. George's Hospital "Museum Catalogue," Series viii., No. 52.

Case 23.—Archibald B., a carpenter, of middle age, was admitted into the Hospital November 30, 1859, having enjoyed good health until two weeks before admission, when the *right* foot became numb and powerless. The paralysis slowly, as it were, crept up the limb in the course of three days, and then the right shoulder became similarly affected; shortly after, the whole of the *right* arm was affected by the paralysis. He had no giddiness or pain in the head. On admission, there was complete loss of power and deficient sensibility of the skin of the right arm, which was not in any way rigid. There was no facial paralysis, and the pupils were unaffected. The tongue, however, was protruded somewhat towards the right side. The mind was unaffected, and the articulation natural. On the day after admission, the urine had to be drawn off, and was found to be free from albumen. After a time the evacuations were passed unconsciously, and there was a little slowness of speech. The pulse remained of good strength, and about 80 to 84 per minute. Bed sores came on; the articulation became very indistinct, and at last impossible; the pupils widely dilated; the pulse very feeble. He appeared quite sensible to the last, gradually sank, and died Jan. 17, 1860.

Post-mortem Examination.—Cranium: The cranial bones and membranes were natural. The convolutions of the cerebral hemispheres were flattened, and the lateral ventricles were distended by clear fluid. The greater part of the *left* hemisphere (the middle and posterior lobes), also the left optic thalamus were much softened, and a portion of the *right* cerebral hemisphere was in a similar state. *Microscopical examination* showed the presence in the softened parts of a large number of "granular corpuseles." Thorax: The lungs showed one or two patches of so-called "cellular pneumonia," much resembling "secondary deposits;" heart weak and flabby; other organs of body natural.(c)

Case 24.—Wm. S., aged 60, admitted March 10, 1860; a clerk; was well until two days before admission, when he became unable to walk without difficulty. On the next day the face drawn to one side, and hemiplegia of the *right* side as to motion became complete. No fit or loss of consciousness. The pupils of the eyes were natural. Sensibility of affected limbs impaired to some extent only. Right arm became rather contracted, *and he was unable to find words to answer with*, but understood when addressed; articulation clear. Pulse 100; tongue furred; no albumen in urine. Ordered turpentine injections, also cal. and colocynth, and empl. lyttæ nuchæ, followed by diuretics. Went on in the same until one day when he was found comatose and stertorous, with dysphagia. Cupped on neck to ten ounces. An epileptic seizure occurred that day, and he died one hour afterwards, April 2.

Post-mortem Examination.—Cranium: Right cerebral hemisphere natural; all of upper part of the *left* hemisphere very softened, nearly to level of the ventricle, and the superficial parts of optic thalamus and corpus striatum in the same state. No granular masses found under *microscope*. Arteries of the brain very atheromatous, especially the left carotid, which was thickened and dilated irregularly. Thorax: Heart hypertrophied; coronary arteries very atheromatous; pericardium very adherent.

Case 25.—Cath. G., aged 38, July 5, 1860. Mother of eight children; has had good general health; had had miscarriage two months before admission, attended with much hæmorrhage. Went on well until two days before admission, when she became delirious. No convulsions or rigors. Admitted with symptoms not unlike fever, but had not quite the languor of fever; muttering; left pupil larger than right, and less active; no facial distortion; limbs natural; pulse 90 to 94; did not protrude tongue, which was moist; evacuations involuntary. Wine and stimulants given. She became lower, and bark was given, and subsequently became comatose and stertorous. Skin not moist. Pulse 90. Turpentine injection given. Pulse became rapid and feeble. Respiration quick, and râles in chest came on. Coma became worse, and she died July 16.

Post-mortem Examination.—Cranium: Cerebral membranes and sinuses congested. Slight amount of recent lymph on parietal arachnoïd, covering the falx cerebri. In right lobe of brain (centrum ovale minus) patch of ecchymosis, large as a cherry, with yellow softened tissue around; the surrounding part soft and yellow. In left lobe was larger patch of ecchymosis, towards the middle of the external circumference, in which was a yellow mass size of pea, like secondary deposit; brain diffluent around the clot; whole hemisphere softened

(c) See "Hospital Museum Catalogue," Series viii., No. 51.

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and yellowish. Ventricles very distended with serum. Thorax: Heart fatty; lungs healthy. Abdomen: Kidneys cysted. Uterus with ulcerated lining and fibrinous deposit in one part of muscular walls; one of the large veins in broad ligament blocked up by large oval discoloured coagulum. Other organs natural.

(To be continued.)

SUCCESSFUL CASE OF OVARIOTOMY IN A PERSON SIXTY-SEVEN YEARS OF AGE.

By EDWARD DEWES, M.D.,
Physician to the Coventry and Warwickshire Hospital.

Mrs. N., aged 67, of spare habit, the mother of three children, of whom the youngest is 37 years of age, called upon me in August, 1863, relative to an enlargement of the abdomen. She states that she has always enjoyed excellent health, and has not had occasion to consult a Medical man during the last twelve years. The abdomen is filled by an ovarian cyst extending from the symphysis pubis to the ensiform cartilage. Fluctuation is very distinct, percussion dull over the front of the abdomen, clear in both loins, most so in the right. On examination per vaginam the uterus is found to be *in situ*, free, and moveable. She has noticed the abdomen getting larger for the last fifteen months, and thinks that the swelling commenced on the left side.

As she had not experienced any inflammatory symptoms, and her health was in a very satisfactory condition, I considered the case, notwithstanding her advanced age, a favourable one for extirpation, and proposed a consultation with Mr. John Clay, of Birmingham, who, after a careful examination, concurred in the opinion.

As, however, the patient experienced very little inconvenience, except from her increased size, and was able to get about with some degree of comfort, she would not at that time consent to any operation.

In February, 1864, however, the abdomen having increased considerably in size, and the breathing having become somewhat embarrassed, she consented to the performance of the operation. On examining the state of the lungs, sub-crepitant râles were found in their bases, partly the result of cold, but in some degree due to the pressure of the cyst upon these organs. The more urgent of these symptoms having yielded to the application of a blister and the administration of tonic remedies, the operation was performed on March 15 by Mr. Clay, with the assistance of the following Professional friends and myself:—Dr. Laxon, Dr. M'Veagh, Mr. Ebbage, and Mr. White, of Kempsey.

The patient was quickly placed under the influence of chloroform, an incision two inches and a-half long was made below the umbilicus, the cyst, which was perfectly free from adhesions, was tapped and gradually drawn forwards as it emptied itself. The contents measured twenty pints. The peritoneum was in a normal condition.

On the extraction of the tumour, it was found to be without a pedicle. It was absolutely sessile upon the broad ligament, which latter presented a thick fleshy appearance, was extremely vascular, and contained many large tortuous vessels. Dreading any interference with this structure lest inflammation should be excited in it, Mr. Clay adopted the proceeding of forming an artificial pedicle out of the base of the tumour by placing around it (having previously destroyed the secreting surface of the cyst) a calliper clamp, and cutting through the sac so as to leave a portion of it to form the pedicle. This was brought outside the wound, and secured at its lower end. The wound was then closed by a hair-lip pin, one deep silver wire suture transfixing the peritoneum and one superficial suture.

Shortly after the operation the patient complained of severe dragging pains in the back. In the evening the pain had become so urgent and the abdominal wall was so depressed by the pull of the uterus on the clamp that the latter was removed, and the pedicle secured by a strong hempen ligature, the stump being allowed to sink within the abdomen. It did not, however, recede so far as might have been expected, the bulk of the pedicle remaining external to the abdominal parietes.

The tumour proved to be connected with the left ovary, and consisted of one large cyst containing numerous secondary cysts, varying from the size of a pea to that of an orange, several of them containing thick dark-coloured gelatinous matter.

The after-treatment consisted in strict abstinence from food for several days, a little champagne or brandy and water only being allowed; the frequent use of injections of beef-tea, brandy, and laudanum; and the use of the catheter at regular intervals.

The sutures were removed on the fourth and sixth days; the artificially-formed pedicle gradually sloughed away; the pulse was never higher than 90; and the patient made a rapid recovery without the occurrence of a single unfavourable symptom.

This person is, I believe, the oldest upon whom the operation of ovariotomy has been performed in England. Dr. Atler, of America, mentions one about the same age who also recovered.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

A CASE OF DISEASE OF THE HIP-JOINT, WITH DISLOCATION FORWARDS—DEATH FROM ABDOMINAL DISEASE—POST-MORTEM EXAMINATION OF THE JOINT.

(Under the care of Mr. PARTRIDGE and Mr. WATSON.)

L. A., aged 26, a carpenter at Beaconsfield, in Buckinghamshire, was admitted, under the care of Mr. Watson, in September, 1862, and was subsequently under the care of Mr. Partridge. His aspect is decidedly scrofulous, and he comes of a very scrofulous family. Mr. Rees, of Beaconsfield, under whose care he has been, gives the following account of the case:—"He first came under my care in May, 1860. He was then suffering from severe pain in the hip, with all the symptoms of sciatica. I administered the usual remedies, with counter irritation, with very little relief. Occasionally the pain was so intense that large doses of opium failed to give him any relief. He attributed this pain to cold caught when out at work by sitting upon damp timber. I attended him up to October, 1860, when he became a patient of the Windsor Infirmary, and subsequently of the Westminster Hospital. He returned home about April 20, 1861. In addition to the other symptoms, he was now complaining of violent pain in the groin, attended with considerable swelling, which he attributed to the needles which had been introduced there at the Westminster Hospital. On May 11 following I opened a large abscess, which continued to discharge up to the time of his death, various abscesses having formed in different parts. His brother about ten years ago suffered from inflammation in the knee-joint, and was sent home from a London Hospital as incurable. In that case no matter formed. Happily, country air and patience quite restored him, and he is now an active and healthy young man, and married."

On admission into King's College Hospital his condition was as follows:—The left leg and foot were rotated outwards, the limb much shortened, the gluteal region flattened, and an unusual prominence occupied the inguinal region and the upper part of the thigh. This swelling was in the greater part of its extent of a firm elastic nature, and marked on the surface by a network of several large veins. At the upper part, however, and about opposite the centre of Poupart's ligament, there was a bony induration, and below this the movements of the head of the bone could be felt immediately under the skin when the limb was rotated. Several sinuses opened at various points in the neighbourhood of the joint, from which there was a constant thin sero-purulent discharge, but on probing which no bare bone could be felt. He had little or no pain, except on moving the joint or making pressure in front of it; but he complained of pain in the knee and down the inside of the leg. His general health had only suffered so far that he lost flesh.

Various forms of splints were applied, with a view of keeping the joint at perfect rest, but he was unable to bear any of them, and he left the Hospital at the end of two or three months very little benefited.

At the early part of the present year he began to suffer much from severe abdominal pain and to waste rapidly, and these symptoms, notwithstanding Mr. Rees' judicious treatment, became much aggravated in the beginning of February.

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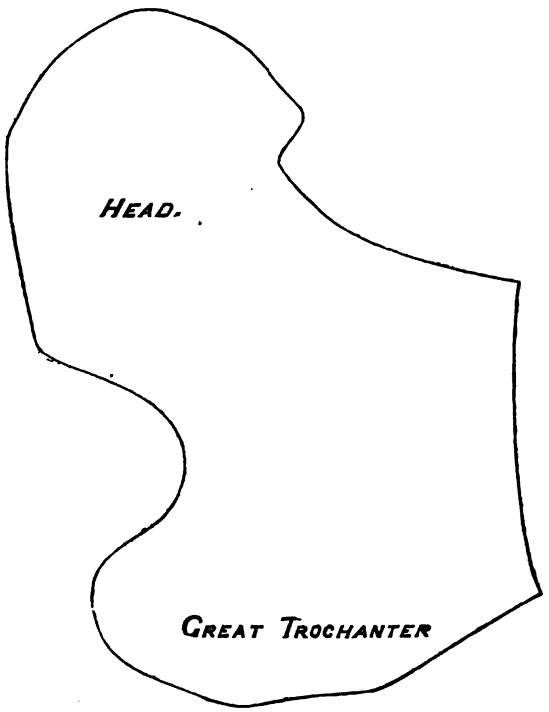
He died on February 10, after several days and nights of intense agony, as if from the presence of some abdominal abscess.

Autopsy.—On cutting down upon the point at which the head of the bone was felt, the knife at once entered the newly-formed articulation, which was covered only by thickened cicatricial tissue, and lay at about a quarter of an inch from the surface. The joint appeared to be surrounded by a capsular ligament, and did not communicate with any of the numerous sinuses surrounding it. The head of the femur was very much worn down on the upper and posterior aspects, and covered in the greater part of its extent by loosely attached fungoid granulations of a deep black colour, and the same material lined the newly-formed socket. At the under and back part of the head these granulations were deficient, leaving the bone rough and bare. The new socket, which was very shallow and broad, was situated in front of the horizontal ramus of the os pubis, and had evidently been formed by the gradual yielding of the anterior lip of the acetabulum and the subsequent formation of new bone, for no traces of the original cavity could be discovered. At several places along the crest of the ilium the bone was quite bare, and easily broken down by the slightest pressure.

The accompanying outline of a vertical section through the head of the bone shows the alteration of shape which it has undergone. The cancellated tissue, to the depth of half an



inch from its surface, was occupied by what was proved by the microscope to be yellow firm adipose tissue, but which gave the appearance of an interstitial thickening of the cancelli to the naked eye. At one or two points of the cut surface, the bone was so soft as to break down easily, and this was particularly the case in the great trochanter. The material occupying the softened part of the great trochanter presented under the microscope a quantity of finely-granular fatty matter and *débris* of the different tissues. This material lay in the interstices of the bone, which appeared to be much wasted, and in many parts so thin and membranous as to allow of easy examination with a $\frac{2}{3}$″ object glass without any preparation, consisting, in fact, of a single layer of bone cells placed in juxtaposition.

GUY'S HOSPITAL.

PERITONITIS (INFLAMMATION OF RIGHT OVARY).

(Under the care of Dr. BARLOW.)

THIS case is interesting as showing the connection between peritonitis and disease of the ovary, as pointed out in Dr. Barlow's "Manual of the Practice of Medicine." There is, according to many Hospital Physicians, no such disease as idiopathic peritonitis.

Ann Elizabeth M., aged 33, a seamstress, living in Shadwell, was admitted into No. 20 Miriam, October 3, 1863.

She is a well-formed woman, unmarried, and has had no previous illness. On Monday last, five days ago, she felt pains down the spine and about her shoulders, which were of sufficient severity to confine her to bed. On Thursday she was attacked with acute pain in the right iliac region, and on Friday took some jalap, which operated twice; she also vomited once or twice on that day, and the pain extended over the abdomen.

On admission, Saturday, October 3.—Complains of acute pain in the right iliac region, and of less severe pain over the whole of the abdomen, the surface of which is hot and tender. Breathing quick, and entirely thoracic; skin moist; tongue considerably furred; pulse small and quick, 110; urine natural colour, slightly cloudy, but contains no albumen; no cough; vomits a quantity of greenish fluid; bowels have been relieved; the catamenia had just appeared. She was ordered by Mr. Stocker half a grain of opium every four hours.

4th.—Abdomen very painful and tense. Complains of much thirst. ℞. Pulv. opii., gr. j.; hydrarg. chlor. g. ss., ft. pil. 6tis horis. s.

5th.—Pulse small and weak, 110; tongue dry and furred; state of abdomen much the same. Enema saponis.

6th.—Bowels moved once by the enema. Sickness and pain continue much the same, the right iliac region being still chiefly painful. Rep. pil. Haust. efferves., 4tis horis. The pain returned more severely in the evening. Pulse 120. To have a linseed-meal poultice.

7th.—The poultice gave considerable relief. Tongue cleaner; urine normal, and passed freely; vomiting of a clear brownish fluid recurs two or three times daily; bowels not moved this morning. Rep. enema saponis. Pil. saponis, io. gr. v., 3tis horis. Repeat haust. eff.; brandy, ʒiv.; milk and lime-water.

8th.—Abdomen tympanitic; pulse small and feeble, 120. The enema brought away a small quantity of hardened fœces. Has been sick once this morning. Passed rather a restless night, but dozed comfortably towards morning. Tongue coated with brown fur.

9th.—Much the same. Pulse more feeble, 120. Was very ill during the night, so much so that the nurse thought she was dying. Respiration 40. Has slight bronchitis; has not yet been at all affected by the opium. Hyd. chlor., gr. j.; opii., gr. j., 4tis horis. ℞. Strychniæ, gr. $\frac{1}{16}$; acid phosph. dil., ʒj.; aq. ad ʒiv.; M. capt., ʒss., 4tis horis.

10th.—Tongue cleaner round the edges. Pulse more full. Sickness less. Abdomen not quite so tender. Has slept comfortably for several hours.

11th.—Seems a little affected by the opium. Not so well as yesterday.

12th.—Weaker. Has had no sickness since last evening, but takes scarcely any nourishment. Slight bronchial cough. Pulse 132; respiration 30. Does not now complain of pain in right iliac region on pressure, but says she feels pain about the right hypochondrium, increased on pressure. Beef-tea enema. Rept. pil. 6tis. vel. 8tis. horis.

13th.—Enema administered at 9 p.m. and retained till 2 a.m. No sickness and very little pain, but very weak. Bowels freely opened. Rept. enema noct maneque. Sodæ bicarb., gr. x.; acid hydrocyan. dil., ɱiij.; æther chloric, ɱxv.; sp. ammon. arom., ɱxv.; mist. acaciæ, ʒj.; ex aqua, 4tis horis.

14th.—Abdomen more tympanitic. Pulse 125; respiration 30. Urine passed freely. Bowels rather relaxed.

15th.—Much troubled with bronchitis. Weaker. Pulse 142. Much tympanitis, but no dulness. Sickness has returned since last evening. Died exhausted about 6.30 p.m.

On *Post-Mortem Examination*, the intestines were found all matted together. In the interstices was a quantity of purulent matter, in some parts pure pus, in others dirty-coloured fluid. There was found also a collection of purulent matter between the diaphragm and the right lobe of the liver. On separating the intestines from one another, the seat of the disease seemed to be in the right iliac region, in consequence of there being a larger collection of pus and the parts around being soft and sloughy. On removing the cæcum and appendix, although their exterior was sloughing, the interior was healthy. Close in contact with the cæcum was the distended Fallopian tube and ovary. The latter was rather larger than usual, and in its interior was an abscess communicating with the external surface, which was soft and

sloughy. There was follicular ulceration about the os uteri and the vagina. All the other organs were healthy.

For the report of this case we are indebted to Mr. Herbert Spurgin.

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Medical Times and Gazette.

SATURDAY, MAY 21.

THE MEDICAL COUNCIL.

On Saturday, the twelfth and last day of the Session, the Council determined to have a long day's work; eager to deserve well of the Profession, they burnt the candle at both ends; suspending their standing orders, they met at twelve instead of two o'clock; and they sat after the sacred hour of six. In presence of such noble devotion to duty, we ought, perhaps, to bow in mute admiration, yet we cannot help asking —"*Cui bono?*" what did they actually *do* in those six long hours?

Well, it is much easier to say what they did *not* do than what they did. They did not continue the discussion of the report on Professional education. The previous evening they determined to recommend "That the age of 21 be the earliest age at which any Professional licence shall be obtained; and that the age shall in all instances be duly certified." Mr. Rumsey moved as an amendment, "That after 1868 the earliest age at which any Professional licence shall be obtained be 22," but this was negatived by 11 to 7; five members of the Council not having any opinion on the subject, or fearing to state their opinion, declined to vote at all. We regret the fate of Mr. Rumsey's amendment, as we think it would help to raise the Profession in public estimation, and if, as has been said, it had any tendency to diminish the number of Medical men below the demand for them, such a state of things would be quickly rectified by the public being thereby forced to treat Medical men better, and to pay them better. However, the passing their novel "recommendation" so completely exhausted the Council that they felt quite unequal to continuing the discussion of the Report on Saturday; and what were they to do? "Consideration like an angel came" to the rescue, and they directed that the Report of the Select Committee should be forwarded to the various bodies in schedule (A), with the dreary information that it is "under the consideration of the Council," and asking their observations on the suggestions contained in it.

The Council did not do various things they were asked to do. They refused to give the "National Life-boat Institution any opinion" on the relative merits of the plans of Dr. Marshall Hall and Dr. H. R. Sylvester for the restoration of the apparently dead from drowning; the question "did not come within the sphere of their duties."

They refused to give the Vestry of Bermondsey any advice as to the best method "of preventing the registration of uncertified deaths," or on the means "of protecting the public against unqualified Practitioners." Such matters "do not lie within the province of the Council."

They refused to take into consideration the proposal of Mr. Gason (of Rome) "That they should take into consideration the advisability of calling the attention of Her Majesty's Government to the justice of placing those Medical men residing abroad, who conform to the laws of their country, on the same footing as Medical men residing in the United Kingdom;" and "That registers be supplied to Her Majesty's ministers and consuls for the furtherance of that object." "The Medical Council have no power to comply with such proposals."

They refused any help, or assistance, or consolation, even, to Dr. Henry Scott, who is tormented by a quack of the name of Hamilton, who has established himself in London, and under the name of "Henry Scott," issues a vile pamphlet, addressed to the female sex, on female irregularities and obstructions. We regret that we cannot give our readers the exact terms in which the Council couched their refusal and confession of impotency, for the instances quoted above show a charming variety of phrase, and it is heartbreaking to lose any opportunity of getting instruction in return for the thousands our Council costs us.

In the art of "how not to do it" our Great Moral Persuader shines. It is evidently delighted when anything comes before it to which it can give at once a positive, decided, and unanimous negative; but if real action be proposed, and on a matter that unhappily comes undeniably "within the sphere of its duties," then it takes refuge in moral suasion; or if there is no other way of avoiding an affirmative resolution, some of its members "decline to vote,"—a degree of liberty which, however, the Council are not disposed to allow their President or Chairman. They would reverse in the Medical Council the doctrine that "that in the Captain's but a choleric word which in the soldier is flat blasphemy;" and they are to take counsel's opinion "whether the President or Chairman for the time being is not bound to give his casting vote in the case of an equality of votes on a division." It does not seem to have even occurred to the Council that the instances we have quoted of their powerlessness to do anything are, if true, so many reasons for trying to amend the Medical Act. Dr. Corrigan, who had been "Chairman of the Medical Acts Amendment Committee" since 1860, thought it was time that the Council should cease "to consider" whether any, and if any, what, amendments were needed, and that they ought to take action in the matter; but that was going a great deal too fast for the Council; they are horribly afraid of going to Parliament; they must be unanimous first as to what they ask for; Parliament will say, "Is this demanded only by a majority, or are you unanimous?" and if the former, they will be turned back, like naughty boys, to get their lesson more perfectly. So the Branch Councils are again to "consider" how certain clauses of the Act may be best amended; and the General Council are to "consider the whole subject" again next Session. What utterly dreary, heart-sickening work this is! Since when, we would ask, have we in England governed by unanimity of opinion? When did we give up the rule by majorities? But who will believe that it is the truth, or any part even of the truth, that a necessity of previous unanimity is the reason that the Council delay going to Parliament for enlarged and more accurately defined powers? Who does not more than suspect that, in fact, the Council are haunted and paralysed by a dread lest an account of their five years' stewardship should be demanded of them, and then that, instead of gaining enlarged power, even that which they have might be taken from them.

When we come to business done—that is to say, to affirmative resolutions passed, on Saturday—we find that almost the whole consisted of votes of thanks, or votes of money. Few bodies, singular or composite, find any difficulty in passing the latter, so long as the banker is responsively sympathetic, so that the Medical Council can hardly claim much credit on that score. They also passed a resolution that the attention of the Secretary of the Home

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Department be drawn "to the present defective state of the law regarding the practice of pharmacy, under which any person, however ignorant, may undertake it; and expressing the opinion of the General Medical Council that some legislative enactment is urgently called for to ensure competency in persons keeping open shops for dispensing medicines and for the compounding of Physicians' and Surgeons' prescriptions." We congratulate the Council on the cautious manner in which they have dealt with this subject. We hold that it would have been a most grave error to have tacked a pharmacy clause on to the Medical Act. Pharmacy, which is a trade, would then have claimed equality with the science and art of Medicine; chemists and druggists would have claimed to be registered under the Medical Act; it would have been increasingly difficult for the public to distinguish between them and the registered Medical man, and "counter practice" would have been fostered and rendered more flourishing. But while we maintain that pharmacy is a trade, and, according to the present prevailing views, ought therefore to be free, and while we admit that to prevent any Briton from getting poisoned if he likes would be an interference with the liberty of the subject, it does, nevertheless, seem desirable that some means should exist whereby he may know who is or is not likely to poison him, who has or has not been educated in the trade he chooses to adopt. The matter is therefore a somewhat difficult one to handle, and is best left to the Legislature to deal with separately from the Medical Profession.

With this expression of our qualified concurrence in one of the resolutions of the Council, we must close our notices of their proceedings. We cannot devote any more space to them. While we assure them that we fully appreciate the difficulties they have to contend with, we heartily wish that we could honestly congratulate them on showing more earnestness and singleness of mind in their endeavours to overcome those difficulties. We commend to their serious consideration the following words of one of their own body:—"If, then, the Licensing Bodies had failed in their duty, what had the Medical Council been about? This is the sixth session in which they had met, and they had never once expressed to the Medical Profession what they thought necessary for the purpose. . . . In this state of things he would advise the Council not to trust too much to the patience of the public. He was only surprised that their patience had lasted so long."

THE WEEK.

PARLIAMENTARY.

In the House of Commons, on Friday, May 13, Colonel French asked the Home Secretary whether it was the fact that the Archbishop of Canterbury had the power to confer the title of Doctor of Medicine on persons who had not undergone an examination before the College of Physicians.

Sir G. Grey said he had not been able, upon short notice, to ascertain all the facts of the case, but there was an old statute under which the Archbishop of Canterbury had the power of conferring the degree of Doctor of Medicine. (Laughter.) He believed this power was not recognised by the last Medical Act, and he might add that the present Archbishop of Canterbury had never exercised the power. (Laughter.)

The House adjourned until Thursday, the 19th inst.

The House of Lords adjourned until Monday, the 23rd inst.

THE ARMY MEDICAL DEPARTMENT.

It is a matter of some congratulation that the moribund state of the Army Medical Department is beginning to attract notice outside the Profession. The cool manner in which, in the recent debate, the Marquis of Hartington dismissed the complaints of the Medical officers as "trifles," scarcely worthy of official notice, has produced the following remonstrance from a writer in the *Times* of Monday. If next year should witness the breaking out of the general conflagration which has been so long prophesied, Government will find that the bad faith they have kept with the Medical officers has had anything but a "trifling" effect on the efficiency of the service:—

"*Army Medical Department.*

"(To the Editor of the 'Times.')

"Sir,—In the *Times* of the 6th inst. we read that the Under-Secretary of State for War had stated in the House of Commons, in reply to the remarks made by Colonel North and General Peel, that the deficiency of army Surgeons might be attributed to the decrease in the number of individuals educated for the Medical Profession, but not to the 'failure to carry out in their integrity the recommendations of the commission on which the warrant was founded.' The noble Lord 'could not imagine that trifles such as these would make any Medical man hold back who intended to connect himself professionally with the army.' It is to be regretted that the noble Lord should entertain such an erroneous idea. It is well known in the Profession that the dearth of candidates for the commission of Assistant-Surgeon in the army is entirely attributable to the failure to carry out in their integrity the provisions of the warrant of October, 1858; and the knowledge that advantages and privileges conferred one day are either withdrawn the next or else evaded by the military authorities. In fact, there is a feeling of insecurity, justified by the conduct of the authorities since 1858.

"Questions which appear trifling probably to the noble Lord and other persons not intimately concerned are, nevertheless, of considerable importance to those directly affected by them, and questions of 'position' have a greater influence with the higher classes of Professional men than the mere consideration of pay.

"The authorities have thought it right to yield in this matter to the inordinate jealousy of the (so-called) combatant officers, and they are now reaping the results.

"So far as I can learn—and I have taken much pains to ascertain the opinions of the Profession in the matter—the desire is to enjoy in all things, except military command, the advantages and precedence attaching to the ranks with which theirs relatively correspond.

"I am, Sir, your obedient servant,

"A CONSTANT READER."

CORONER LANKESTER'S FIRST ANNUAL REPORT.

Doctor-Coroner Lankester has lately read before the Social Science Association a most weighty and instructive paper on the inquests which he presided over during the first year of his office. As he well observes, such a report "may supply the statesman, the jurist, and the philanthropist with the facts that demonstrate the vast importance of the coroner's court to the safety of life in the only country in Europe in which it exists in all its integrity. It is not alone in the investigation of cases to which criminality is attached that the coroner's court is of importance. It ought to be made the great safeguard of society against the prevalence of any preventible cause of death, whilst its importance can hardly be exaggerated in its investigations of the cause of death in our prisons, lunatic asylums, and workhouses." He complains justly of the "uncertain way in which the coroner's court is called into action. One of the most common sources of information to the coroner is the refusal of the district registrar to register a death upon an irregular or unusual Medical certificate of death. Where an intelligent registrar refers an irregular certificate to the summoning officer of the coroner, or to the coroner himself, or refuses to register without a Medical certificate, or a notice from the coroner, there the coroner's inquest is called into action, and life receives its greatest protection. The registrar is, however, not legally required to give any information to the coroner, and a registration of death may take place without Medical certificate. The registration of death and the burial of the body without any Medical certificate is of very common occurrence in London. Not only are unsatisfactory certificates accepted, but Medical certificates are registered in which the Medical men have not seen the person alive, and in some cases where they have neither seen them alive nor dead. It has come to my knowledge that the registration of death has taken place in cases of violent

death and sudden death without any appeal to the coroner of the district. It is very evident that such a system is fraught with danger to the public, and that it ought not to be left to the judgment of the registrar as to whether the coroner shall be informed of the entire absence or irregularity of a Medical certificate. It would at least be a thing easy of accomplishment in the London districts to require that incomplete or irregular certificates be sent to the coroner before registration." Even in cases where the inquest ends in a verdict of natural death it is of great use. "The progress of pestilence may not unfrequently be stayed. In many cases the law requires the removal of nuisances injurious to health, and where notice is served for the removal of these nuisances, and they have not been removed and are the cause of death, there can be little doubt that parties so offending expose themselves to verdicts of manslaughter in coroners' courts. It sometimes happens in Hospitals that erysipelas and pyæmia become epidemic, and the investigation before the coroner's court is most efficacious in drawing the attention of all concerned to the causes of these diseases and their removal. In cases also of small-pox where children die, and their parents have neglected vaccination after due notice of its requirement by the law, it is a question as to whether they do not expose themselves to a verdict of manslaughter." Inquests are often held where death has arisen from unsuspected inflammation of the lungs. This may give a hint to some of us when called to treat cases of "debility." Out of 346 accidental deaths, 90 were those of infants smothered whilst in bed with their mothers. The coroner concludes with a caution to his Medical brethren. "The importance of accurate post-mortem examinations at coroners' inquests can hardly be overrated. When the jury finds simply a verdict of 'found dead,' the whole question of the cause of death is left open to a variety of surmises, and the object of the coroner's court is defeated. At the same time, unless the post-mortem examination is complete it may mislead the jury. It is a frequent practice amongst Medical men to carry their examination only so far as they think necessary to discover the cause of death, and then to leave important organs unexamined. In this way the brain is sometimes not looked at when violence has been done to other parts of the body, thus leaving the question of whether a person may not have received the injuries by falling down in a fit unanswered. It is sometimes the case that an effusion of blood on the brain takes place as the consequence of vomiting from poisoning. In such cases, if the head only is examined the effusion is supposed to be the cause of death, and the poisoning is undiscovered."

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE XVI.—MARCH 8.

Anatomy of the Gorilla continued.—Of the structure of the internal organs of the gorilla, very little is known. Duvernoy has described the larynx and male organs of generation; Gratiolet the brain, from an exceedingly imperfect specimen; and Professor Huxley has himself been able to add some observations upon the thoracic and abdominal viscera. The heart is very human in form, and the great arteries spring from the arch of the aorta in precisely the same manner as in man, —that is, the right carotid and subclavian arise from a common innominate vessel, and the left carotid and left subclavian separately from the aorta,—an arrangement which is soon lost in descending the series of apes. The lungs are divided into the same number of lobes as in man. The stomach is of the same form, and the cæcum very large, and provided with a long vermiform appendix. The liver in the only specimen examined departs remarkably from the human type, inasmuch as both right and left lobes are subdivided by deep fissures. The state of the brain examined by Gratiolet only sufficed to show that the principal sulci and gyri agreed with those of the chimpanzee. The form of the organ is, however, well seen in a cast of the interior of the cranium. It is longer and more depressed than in the chimpanzee, and the olfactory lobes are more prominent. When the tentorial plane is horizontal, the posterior lobes of the cerebrum project to a marked extent beyond the cerebellum. The glans penis is more developed than in the chimpanzee, having a button-shaped dilatation at the extremity.

The female gorilla is much smaller than the male. Her skull wants the great crests or ridges, and her teeth, especially the canines, are smaller. The pelvis of the female presents a considerable approximation to the form of the human pelvis. It is much shorter than in the male, somewhat narrower from spine to spine of the ilium, and while the transverse diameter of the brim is nearly equal in the two sexes, the antero-posterior diameter is very much less in the female. In the outlet of the pelvis the distinction between the sexes is not so marked. As far as could be learned from measurements of two young gorillas, the law of growth is the same as in the chimpanzee.

Professor Huxley here took occasion to revert to the chimpanzee, for the purpose of describing the placenta and fœtus of one of these animals preserved in the College museum. The placenta was a circular mass, three inches and a-half in diameter, and half an inch thick, not divided into lobes. In its structure, as well as in the cord and membranes, it generally resembled the human placenta. The fœtus was eleven inches and a-half long, and would probably correspond to a human fœtus of the eighth month. As might be expected, the head was considerably larger in proportion to the rest of the body than in the adult or young after birth; the arms were notably shorter, which might at first be supposed to indicate an approximation to the human type, but the legs were also shorter to a proportionate amount. This shortening of the limbs is, then, a fœtal character, and as it had taken place to a corresponding extent in both limbs, it shows, in an interesting manner, the *ape* character of the chimpanzee strongly and definitely marked at this period of intra-uterine life.

The next animal taken under consideration was the orang-outang. It is only known to exist at present in the great islands of Borneo and Sumatra, where it is comparatively rare, and confines itself to the wooded, hilly, inland parts. There is no trustworthy evidence that it ever exceeds four feet four inches in height. The span is nearly twice that extent, being to the height as 18 or 19 to 10. The legs are proportionately shorter than in the chimpanzee and gorilla. The foot is longer than the hand, and both are singularly narrow. The forearm is nearly of equal length with the upper arm, and the thigh is very little longer than the leg. In most of these proportions it deviates further from man than do the chimpanzee and the gorilla. The hair is of a reddish brown; on the arms it is disposed as before described in the other anthropoid apes and man. On the chin it grows in especial abundance, forming a large beard, but the greater part of the face is naked. A peculiar appearance is given to the physiognomy of the adult male by a remarkable development of fibro-cellular lobes, containing much fat, projecting outwards from either cheek; these are not found in any other apes.

The habits of the orang have been observed and described by S. Muller, Sir J. Brooke, Mr. Wallace, and others. It very unwillingly assumes the erect posture, perhaps never in its native haunts. When it walks upon the ground it swings itself along by its very long arms as with crutches, not resting exactly on the knuckles as the great African apes, but with the inner edge of the index finger on the ground, and the thumb spread out. The hind foot does not come flat on the ground, but rests on its outer edge, with the toes close together and curved. Even when passing from bough to bough of the trees among which its life is chiefly spent, it observes a remarkable slowness and caution in its movements. It builds itself a kind of nest of leaves and twigs, and has an exceedingly loud voice, during the lower notes of which the great laryngeal pouch is seen to swell.

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The vertebral column possesses even less of the human sigmoid curve than the chimpanzee and gorilla, but the sacro-lumbar angle is distinctly marked, and the coccyx continues the curve of the sacrum. There are seven cervical vertebræ, twelve dorsal (with twelve pairs of ribs), generally four lumbar, and five sacral. The large specimen in the College museum has five lumbar, giving the same vertebral formula as in man. The spinous processes of the cervical vertebræ are very long. The sternum exhibits an interesting modification (seen only exceptionally in man), being formed from a double series of ossifications, placed side by side. The scapula, on the whole, bears a greater resemblance to that of man than it does in either the chimpanzee or the gorilla. The clavicle, on the other hand, departs further, being very straight and long. The articular head of the humerus is large, and the shaft comparatively slender. The bones of the forearm present the widely-curved radius, and the short olecranon characteristic of the ape. The hand deviates from the human type much more than in the other anthropoid apes; it is very long and narrow, and the phalanges are greatly curved. The thumb only reaches to the end of the second metacarpal bone. As in most of the lower apes, there are nine bones in the carpus, the additional one being situated between the scaphoid, os magnum, and trapezoid, and is probably a dismemberment of the former. This is a significant difference from the hand of the chimpanzee and gorilla, because it is one which does not appear to be in any way adaptive. The ilium does not extend so high as in the chimpanzee or the gorilla; it is broader than in the former, but less so than in the latter. The ischia have the characteristic eversion of the ape. A remarkable circumstances connected with the femur is the entire absence of the round ligament. The foot deviates very greatly from that of man. The tarsus is the shortest segment, the metatarsus next, and the digits the longest. The calcaneal process is narrow from side to side. The mobility between the distal and proximal divisions of the tarsus is exceedingly great, and is the chief cause of the habitual turning inwards of the sole of the foot. The entocuneiform bone has the simian character remarkably well shown. There is a considerable space between the articular surface for the first and second metatarsal bones, in consequence of which the hallux takes a position at right angles to the foot, with the greatest ease. The scansorial curvature of the phalanges is even more definitely marked than in the hand. The hallux is remarkably short, and its distal phalanx, with the nail, is not unfrequently absent; even when it is present, the end of this digit does not reach the extremity of the second metatarsal bone.

THE FRENCH POISONING CASE.

The trial of La Pommerais for murdering the widow De Pauw has at length come to a close. The prisoner was found guilty; and, as the jury made no mention in their verdict of extenuating circumstances, he has been condemned to death. A large body of Medical evidence was taken during the trial. MM. Nélaton, Velpeau, and Desormeme were examined respecting the pretended illness of Madame de Pauw. It will be remembered that the prosecution alleged that she had simulated illness by the advice of the prisoner in order to impose on the insurance companies and induce them to grant her a life annuity in lieu of her policy. The three Medical witnesses hardly remembered her, but on their prescriptions being placed before them they said that they could not have considered her seriously ill. They had prescribed simply for slight nervous excitement. MM. Tardieu and Roussin conducted the post-mortem examination; and, although they did not detect poison in the viscera of the deceased, yet from the absence of disease in the internal organs, from the symptoms exhibited before death, and from experiments made on animals with the vomited matters scraped from the floor of the room which deceased had occupied, and with the contents of the stomach, they concluded that she had died from some powerful poison—probably digitaline. This opinion was combated by M. Hebert, of the Hospital La Clinique. He maintained that the experiments with the matter scraped from the floor were perfectly valueless, as it was impossible to say that organic matter in a state of putrefaction might not have been sufficiently poisonous to cause the death of the animals experimented on. Claude Bernard, Vulpiau, and Raynal were also examined on the action of digitaline, and detailed the result of their experiments with that substance. The trial was conducted *more Gallico*, the judge condescending to rate the prisoner, and to damage his witnesses in the eyes of the jury in a manner which to Englishmen appears utterly irreconcileable with the even-handed justice of a judicial proceeding. During his imprisonment La Pommerais attempted on three occasions to commit suicide. The judge stated that he considered this strong evidence of his guilt.

FROM ABROAD — THE PROFESSION IN RELATION TO LIFE ASSURANCE—THE CIVIL PRACTITIONERS OF FOGGIA—STATISTICS OF SUICIDE.

M. Guérin adverts in the *Gazette Médicale* to one or two points of purely Professional interest in relation to the late trial of the poisoner La Pommerais. First, Medical men are regarded quite in an exceptional light in France as regards life assurance. It was one of the charges against the accused that when he made these assurances he concealed from the offices that he was a Medical man; and this special fact became the occasion of a general declaration of incompatibility between this title and the right of contracting assurance for life. This exception, which may be regarded almost as an injury to the Profession, is based upon two assumptions—the possibility of the Medical man being aware of information which he may employ injuriously to the interest of the companies, and the fact that he is in a position to criminally abridge the life of a relative which he may have assured. There can be no doubt that both these circumstances have been sometimes realised. A Medical man may have it in his power to conceal from the knowledge of the office disease which must shorten life; and that in some instances he has availed himself of his knowledge of drugs to perpetrate murder is well known. In face of this double ground of suspicion, which M. Guérin declares to be inseparable from Practitioners who are desirous of insuring the lives of their relatives, he gives him the extraordinary advice to entirely abstain from assuring their own or relatives' lives. This is the only way, he declares, to raise themselves in consideration, and to place themselves beyond the range of all injurious suspicions. So that, because some individuals may exhibit a lax morality in replying to the questions proposed, and others, in however an infinitesimal proportion, may become guilty of positive crime, the entire character and consideration of a noble profession is to be blasted, and to be pronounced, even by itself, as incapable of participating in the advantages of one of the greatest of modern social improvements. To admit the general applicability of the assumption by abstention, so far from "raising the Profession in consideration," would be to call down upon its head well-merited contempt.

Another point noticed by M. Guérin is, that the accused prescribed poisonous doses of digitaline and hydrochlorate of morphia, and he asks, was the *pharmacien* justified in dispensing these? The judge ruled that he was bound to prepare the prescription, retaining it in order to cover his own responsibility with respect to it. Yet it is obvious that silence and inaction may favour mistakes or crimes. In fact, *pharmaciens* have often called the attention of Practitioners to what seemed to them dangerous amounts prescribed, and many have been the calamities thus averted; and M. Guérin is of opinion that in all cases in which medicinal substances are prescribed in poisonous doses, the pharmacien, though not obliged by law to do so, nor possessed of any power to control the amount prescribed, should always

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seek for a confirmation of the wishes of the Practitioner from his own lips.

Some time since (*Med. Times and Gazette*, April 2) we noticed what appeared to be a grave dereliction of duty and humanity on the part of the Medical Practitioners of Foggia, near Naples, who were said to have refused their attendance on soldiers in the Military Hospitals suffering during an epidemic of typhus. Grave censures were passed upon them in the Italian Parliament, and the expulsion of those of them who belonged to the Italian Medical Association was decreed. It turns out, however, that matters have been carried on too hastily, as, upon further investigation, much exaggeration and misrepresentation would seem to have prevailed. The affair, in fact, arose, in the first instance, from the local authorities having refused to institute the necessary hygienic preventives indicated by the Sanitary Council and the local Medical Committee, and then, when the danger, which had been sought to be avoided, really arrived, throwing all the responsibility of providing the necessary attendance upon those whose councils they had set at nought. Moreover, no request for the attendance of the civil Practitioners in the Military Hospitals was made by competent authorities, but all soldiers sent to the civil Hospitals were carefully attended to—one of the Physicians in attendance, indeed, meeting his death from the contagion. Notwithstanding the absence of the proper formal request, Dr. Nigri went to attend the soldiers in the Military Hospitals, and the other Practitioners soon followed his example. The Medical Association, having carefully gone into all these facts, has revoked its former condemnatory resolution, somewhat hastily formed, and completely exonerated its fellow associates.

M. Legoyt, the director of one of the Statistical Departments of the French Government, a candidate for membership in the Academy of Medicine, read to that body a paper on the statistics of suicide, which terminates with the following conclusions: — 1. In Bavaria, Denmark, France, Hanover, Mecklenberg, Prussia, Saxony, and Sweden, suicide increases more rapidly than the population and the general mortality. 2. Suicide especially prevails in the Northern States of Germany and different parts of Denmark. Norway and Sweden, though inhabited by the same race, are placed at a considerable distance from Denmark. England, contrary to a generally-received opinion, occupies the lowest rank in the scale of frequency. Suicide is also of infrequent occurrence in the three Catholic countries—Austria, Spain, and Belgium; and France would occupy about the same rank were it not for the great number of suicides which take place in Paris, being one-seventh of the whole number which occur in France. 3. As a general rule, there are 29 or 30 female to the 100 male suicides. 4. They regularly increase in number with age to between 60 and 70 years. 5. In January there are fewest, in July most suicides. 6. Putting aside mental diseases and physical sufferings, which affect both sexes much alike, women yield chiefly to moral influences, while men are powerfully affected by material circumstances. Drunkenness and debauchery figure only to an insignificant amount among the indirect causes of female suicides. 7. In Denmark, Saxony, and Spain, in which countries the inquiry has been entered into, married persons have been those who have yielded least to the propensity, and widowers have done so most. Persons who have been divorced or separated are, however, those who are proportionally more liable to suicide. 8. In Prussia, during two years, Protestants furnished 153 suicides per million; Jews, 51; and Catholics, 47. 9. Suicides are far more frequent in towns than in rural districts. To sum up: the most remarkable fact which comes out of the inquiry is the general and rapid increase of suicide.

UNIVERSITY OF CAMBRIDGE.—The examination for the degree of Master in Surgery will take place on the 24th of this month, instead of on the 30th as before announced.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE NORTH STAFFORDSHIRE INFIRMARY.

ADMINISTRATION.

Like to the South Staffordshire General Hospital, at Wolverhampton, the North Staffordshire Infirmary, as the Hospital of the Potteries is designated, was originally a Dispensary and house of recovery. It is situated in Etruria, and is distant two miles from Newcastle, a mile and a-half from Stoke, and three-quarters of a mile from Hanley; it may be considered as nearly in the centre of the Potteries. It was transformed from a Dispensary into an Infirmary in the year 1815, and in 1819 the present building was opened with accommodation for forty *in*-patients. The institution was founded on the faith of receiving subscriptions from the workmen of the establishments in the Potteries as well as from the masters. The building stands on copyhold land, situated in the Duchy of Lancaster. The property, consisting of real property, funded, and accumulating property, is vested in trustees. The accumulating fund, which now amounts to £1269 4s. 2d. at Three per Cent. Consols, is held in trust to accumulate until it shall produce a clear income of £1000 a-year.

NUMBER OF PATIENTS TREATED.

At the present time the institution contains 130 beds. In the winter months an average of 106 beds are occupied daily, and 90 at other periods.

The average number of patients admitted into the Infirmary runs from 940 to 1030. The number of out-patients averages 4000 annually. The duration of each patient in Hospital is nominally two months; the duration under treatment of out-patients is three months. The number of wards in the Infirmary is seventeen; the maximum number of beds in each ward is thirteen, and the maximum number of patients is thirteen.

RULES FOR ADMISSION OF PATIENTS.

The rules for the admission of patients into the Infirmary differ considerably from those of other similar institutions. The Infirmary is, in fact, to an extent self-supporting, an "*establishment subscription*" being allowed, by which a number of persons in the district can subscribe, and be entitled to the privilege of giving admission tickets to the sick amongst them. As this plan works well, I subjoin an outline of the rules of the Infirmary, in so far as they relate to the mixed plan of honorary and self-supporting subscriptions.

For honorary subscribers there is a scale of privileges of recommendation. An annual subscription of £1 1s. may admit one out-patient at one time; a subscription of £2 2s. may admit one in-and one out-patient. The scale progresses in this manner according to a fixed rule, and a subscriber of £10 10s. a-year may have five out-patients at one time, and five in-patients in the course of the year.

No subscriber of less than twenty guineas a-year is entitled to more than three in-patients at a time; but subscribers of ten guineas a-year are allowed one more *in*-patient at a time for every additional ten guineas subscription.

A donation of ten guineas paid by an individual entitles the donor, during his life, to the privileges of an annual subscriber of one guinea; a donation of twenty guineas, to the privileges of a subscriber of two guineas; and so in proportion for every additional ten guineas.

A subscription or donation from a partnership is considered as from an individual, and entitles the firm to one vote, and to all other privileges enjoyed by an individual.

The "*establishment subscription*" is managed as follows:—The establishment subscription is considered a joint subscription of the persons contributing the same, in the manufactory or other establishment from which it is paid, and entitles them as a body to privileges on the scale already described as for subscribers.

The establishment subscribers contribute during every working week, according to the following scale:—Each person who earns upwards of eighteen shillings per week contributes not less than one penny weekly; each person who earns upwards of seven shillings per week contributes not less than one halfpenny weekly; and each person who earns not more than seven shillings per week contributes not less than one farthing weekly.

Persons who are subscribers, their children and step-children

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under 14 years of age, and wives (not employed in manufactories or collieries), alone are recommended as patients by virtue of an establishment subscription.

The master of an establishment which subscribes can also either himself vote and recommend patients in his name, or address to the Secretary a certificate containing the name of the person who is alone to exercise those privileges; the fact is registered by the Secretary; only one vote is allowed on behalf of each establishment.

Overseers of parishes, the chairman or other specially-authorised members of boards of guardians, and the stewards of friendly societies, may also subscribe, but they alone can vote and recommend patients in virtue of those subscriptions, the first confining their recommendations to their own parishioners, the last to the members of their respective societies; only one vote is allowed on behalf of each union, parish, or friendly society.

Donations from parishes, unions, friendly societies, or other bodies, entitle the proper officers for the time being, during ten years, to the same privileges which the same donation would confer on individuals for life.

Any Physician or Surgeon of the institution who has discharged the duties of his office for twenty years and upwards, is eligible on his retirement to the appointment of Physician or Surgeon extraordinary for life by a general meeting of governors, and every Physician or Surgeon extraordinary enjoys all the privileges of a governor subscribing two guineas per annum.

Ministers who obtain and pay to the institution congregational collections, amounting in each case to four guineas and upwards, are governors for the year in which such payment is made, and are entitled to vote and act as such for one year from date of payment; for every four guineas they have the privilege of recommending one in-patient for the year, but their recommendations are confined to residents in the respective parishes where the congregational collections have been made.

I have noted these regulations at length, because the balance-sheets of the Infirmary show that the rules work well and easily.

Income of Hospital and Cost of Patients.

The sources of income of the Infirmary have already been described. The income varies from £3500 to £3750 a year. In 1861, an average year, the receipts in full were £3685 0s. 6d. Of this sum, £1747 14s. 5d. was derived from "*establishment subscriptions*" alone; £1170 was derived from other subscriptions, the rest were donations and from miscellaneous sources. The expenditure of the Hospital is usually kept within the receipts, and a balance in the treasurer's hands is not unfrequent. We may attribute this, I think, justly to the permanency of the establishment subscriptions.

The cost of patients per head has been gradually rising during the past twelve years. In the year 1851-2 the cost per head of in-patients was £1 9s. 5¼d., while in 1860-61 the cost was £1 19s. 8¼d. Amongst out-patients in the first-named year, the cost was 1s. 2½d. per head, and in the second, 1s. 4½d.; taking the total, the cost of patients all round in 1851-2 was £2 6s. 7¾d., while in 1860-61, it was £3 0s. 7½d.; the expenses, in fact, seem to have risen almost equally in every department—in house expenses, dispensary, and miscellaneous. Still, the average cost of patients is much less than at Wolverhampton, and is nearly the same as at Stafford.

Subscribers to the Hospital are specially desired never to give a recommendation to a patient who may request it, when he who makes the request is able to subscribe himself. The fever patients are considered as in-patients, and as such are charged against the privileges of the governor who recommends them. But any subscriber, in addition to the privileges arising from his subscription, may have one fever patient constantly on the books, provided he send one guinea with each patient.

Medical Staff.

The Medical staff of the North Staffordshire Infirmary consists of two Physicians—Dr. J. T. Arlidge, M.D., and Dr. A. F. Gooday, M.D.; three Surgeons Extraordinary—J. Spark, Esq., D. Ball, Esq., and S. M. Turner, Esq.; three Surgeons—R. Garner, Esq., J. Walker, Esq., and W. H. Folker, Esq.; and one House-Surgeon and Apothecary—W. D. Spanton, Esq.

In addition to these officers there is a dispenser and two resident pupils. The Physicians and Surgeons consider the present resident staff miserably deficient. They are of opinion that an assistant House-Surgeon and six pupils are absolutely necessary, in order that patients may be efficiently examined prior to admission, and that correct records may be kept of the practice of the institution.

SANITARY ARRANGEMENTS.

The site selected by the worthy founders of the Infirmary was unquestionably as good as could be wished at the foundation. It was in the centre of the district, and it was on a spot elevated and pleasantly situated. The potters were for many years proud of their Medical institutions, and the Medical staff were alike satisfied. Mr. Hugh Davies, now of this city, but who some years ago was House-Surgeon to the Infirmary, tells me that in his time the place was most beautiful. The air was pure and clear, the scenery open and varied, and all around was like a garden. Unfortunately, these beauties and satisfactory conditions remain now only in the recollection, and even in the recollection of but a few individuals. In the lapse of time the district, becoming rapidly more and more industrial, has changed so thoroughly in character that the Infirmary must needs be removed. In the course of various mining operations its foundations have been shaken, and the deep clefts in its walls, strong girders, and imperfectly-fitting windows and doors—which latter seem as though they were under a continual course of carpentry—tell how rudely the building has been shaken. Again, the air around is no longer transparent and pure; for a great part of the year the atmosphere is charged with smoke or sulphurous vapour from the furnaces, and the landscape is hidden. At the time of my visits the wind lay well for carrying off the suspended particles of carbon, and in consequence the air was very clear, and one could appreciate the excellence of the site at the time when there was nothing from day to day, except the clouds of heaven, to obscure the prospect; but this was an exceptional occasion, it seemed; for the wind ordinarily is perverse, and will bear the carbon and the sulphurous gas to the doors and windows of this sick man's house.

Little indeed thought the founders of this house of the days that were to come, when the artizan should thrust forth his hand, and all-powerful labour should wring the wealth out of the earth of North Staffordshire around their refuge for the wearied. Little thought they that in the year 1864 there would rise within four hundred yards of the Infirmary four blast furnaces, and that on three sides of it numerous other smoking shafts of mines, and iron works, and bone works would charge the air with unwholesome vapours; still less thought they of the constant thunderstorms of steam hammers playing day and night within two hundred yards of that house, or of the lightning glare of the furnaces flickering though the windows in the dead of night. Least of all would they dream that patients coming from afar, from the open quiet villages of districts where the landowner and engineer have as yet played no shrewd tricks with nature, would ever have to ask for health at a home where hardy flowers, nerveless and unimpressionable, die from poisoned air.

But now all these unseen objections have reached realisation; and a site, once the best, perhaps, in England for a country Hospital, has become the worst. A site on which the disabled man must find every sense injuriously influenced, and where that element of cure for which he instinctively craves more than for any other—*absolute rest*—is forbidden to enter.

Again, owing to the increase of population, the building itself is not in any sense fitted for present requirements. It was not built in the first instance on scientific principles, and at best was meant for a limited number of patients and attendants. In this day, when the demands upon it are so great, every kind of difficulty besets the management. The difficulty of avoiding overcrowding has constantly to be met; the cooking possibilities are narrowed to the finest point; the lodgment of nurses is indifferent, and in short, as we shall see in speaking of details, every condition that can make the carrying out of sanitary rules easy and agreeable is removed as far off as it can be. And so it is now universally agreed that the Infirmary must come down; and a few years will, I doubt not, see in its successor on a new site a building with every necessary accommodation and all appliances of art to boot.

Respecting the old Infirmary, nevertheless, much good may be said, and from it various useful lessons may be learned. Its situation for many years saved it from dangers to which other Hospitals in crowded localities are exposed; for into it for a long time, despite the badness of the construction, good air would find its way. Then came the period when the air lost its freshness; and so surely as that occurred the evils of over-

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crowded wards showed themselves. Once, and more than once, as a result, wards have had to be closed and Surgical operations suspended because of the presence of the plagues of Hospitals. Then, by rigid adherence to sanitary measures, the destructive disorders have been exorcised; and lately, owing to the determinate zeal and care of a Medical staff, that for enlightenment and practical learning is second to none in this kingdom, the most important operations have been performed with results rarely achieved under circumstances infinitely happier and fairer. But the cost, in labour, in anxiety, in watchfulness—who shall count it up? It is not to be counted, indeed, but it indicates what can be done under conditions that are as indifferent as may be, when more than one idea is developed in the Medical and Surgical mind; when the thought and ambition of curing the sick is devoted to treatment in its wholeness:—When with the questions—what shall be done by the hand, and what medicines shall be prescribed, it is also asked, where shall the sick man be placed, and what shall he eat, and drink, and breathe?

It is obvious on a mere inspection of the Infirmary, as it now is, that it is unfit for the objects it is intended to carry out. Externally it has a broken-down, patched appearance; and internally all its parts are defective. The central staircase is so placed as to act as a shaft from the basement; the corridors are narrow, being, in fact, mere passages; the windows are small, and the inconveniences for moving patients from one part of the house to another are not only many, but apparently insurmountable.

Classification and Condition of Wards.

The wards, which are seventeen in number, are divided into Medical and Surgical. The Surgical wards include one which is set apart for accidents, and which serves for general cases. Two wards were built originally, as an additional wing, for cases of burns, and are still used primarily, but not exclusively for this purpose; two wards are set apart for eye cases, one for males and one for females. In the basement is a wretched room, called the outer ward, for female syphilitic cases.

Cubic Space.—The cubic space allowed has been very irregular and limited. I find from an inquiry that has lately been made for the information of the Board of Management, that until lately there were only 675 cubic feet per patient in some wards, and 575 in others. In one ward the space was still less.

The cubic contents of the wards show that—

57 beds (*i.e.*, nearly half)	have less than	600 cubic feet.
24 ,,	,,	700 ,,
30 ,,	,,	800 ,,
18 ,,	,,	860 ,,

Taking the average of patients, however, during the last five months as numbering 106, the cubic space to each has been 818 feet.

The accident ward, containing nine beds, is always full: the cubic space per bed is only 784 feet, half of what it should be. The beds are only two feet six inches apart from side to side, and three feet from end to end. The women's fever ward has four beds (cubic space, only 531 feet to each bed): it measures 10 feet by 16 feet, and ventilates on one side into a nearly dark passage, with an open and offensive sink, belonging to the adjacent accident ward and closet, and, on the other side, into the fever ward beyond.

Ventilation.—There is no systematic ventilation, but in some of the wards there is a grating in the floor, and in others there are openings in the wall at the upper part, near the ceiling, which openings pass into the air directly, and give rise to currents producing downward draughts which are always objectionable, and are dangerous to those who happen to lie in bed immediately beneath them. I understand that in one patient fatal symptoms were produced by this exposure to a blast of cold air.

The air of the wards is exceedingly impure; it smells foully everywhere, and in the committee-room, where I sat for a time, the atmosphere was sickening; I learned that lady visitors have often been unable to perform their duties owing to the stench.

The windows and doors are drawn out of the perpendicular as the result of mining operations near; so that both windows and doors are opened and shut with difficulty, and demand the constant care of the joiner, who, with all his skill, can neither prevent draughts through crevices and ill-fitting joints, nor make a sash move for any length of time smoothly and correctly.

Warming.—The *warming* is imperfect, being dependent on fires in old fashioned fire-stoves, in the use of which there is no consideration of the economy of fuel, nor of the distribution of heat. In the new wing there are some small hot water pipes which throw out heat, but are very imperfect as a system.

Sunlight is much excluded from the Hospital; in some cases so effectually that no gleam of it falls directly on any bed. In the northern aspect, where there is the greatest deficiency of light, and where the air from the blast furnaces sweeps along most determinately, the flowers placed in the windows invariably dwindle and die. The reporters on the condition of the Infirmary to whom I have referred, dwell specially on the defective state of the windows. They remark, that in all the wards, except the new wing, and one end of the men's fever ward, the beds are arranged on one side, along dead walls; and in the new wing, the arrangement of the windows is so defective, that some beds are, from necessity, placed immediately under the windows. Also, in all the wards, with the exception of the new wing, the windows are on one side and at one end only. The wards are entered from interior corridors, of from three feet six inches to four feet wide, dark, and unventilated, except from the main staircase, or great funnel, as it may be called, whence all the steaming and cooking smells of the offices ascend.

The water-closets are, I think I may say, in every case abominably placed. In numerous instances they open partly into the wards. The number of closets is also deficient. The smell from one water-closet diffused itself recently so steadily through the ward to which it was annexed, that the following placard had to be placed in a prominent position:—"Put down the closet lid, and shut the door, when you come out of the closet."

The lavatories and sinks are open to the same objection. I found in almost every case that these communicated with the wards, and, what is worse, there were no windows in them that admitted any sufficiency of light. Hence, these close corners became loaded with organic impurities, which in process of decomposition charged the air with odours little less objectionable than those arising from the closets themselves.

The water supply is derived from the water company, and the water is intended to rise to the upper floor: but the supply occasionally fails altogether, and *often* fails in the upper floor. The water is not inferior in quality, but, as in seasons of frost it is sometimes unattainable for many weeks, great and serious inconveniences necessarily result.

The baths are scarcely worthy of mention. In all the house there are *two* baths, one for males and one for females. Both are placed on the first floor, out of reach of the patients above and below. These baths themselves are rendered less useful than they might be by the irregular supplies of hot and cold water. Of course there is no hot-air bath in the building.

The floors are cleansed by simple washing with soap and water. It is very difficult to keep them clean, and almost dangerous to clean them, for as they consist of deal which is much worn, and is soft and porous, they allow dirt rapidly to accumulate on them, and in the process of cleaning they absorb so much water that the period for drying is greatly prolonged. At this moment, as a temporary remedy, all the floors are being painted with oxide of zinc paint.

The decorations of the wards,—save the mark!—are of stone paint shoulder high, with whitewashed wall above. The walls are very uneven and cracked and rough. There is, to use a plain term, a squalid appearance at every point that scarcely admits of any description that might not seem to be exaggerated.

The drainage has of late been improved, but it is imperfect. It consists of a main drain or sewer that runs from east to west, and receives the contents of all the minor drains. The main drain is now constructed of iron; the iron answers well. In former times emanations from the main sewer were a cause of constant annoyance and danger.

The bedsteads are of iron, and curtains are not patronised. The bedding consists of an under straw mattress with a hair mattress above.

Classification of Patients.

The Surgical cases are separated from the Medical, and in the Medical cases each Physician has his own ward. The cases attended to by the Surgeons are mixed, *i.e.*, no Surgeon has a ward distinctly to himself. Fever cases are admitted, and at one time two wards were set apart for such cases; but they were considered amongst the worst wards in the house, and were soon given up to general cases. At this time the fever cases are distributed as widely as they can be amongst the other Medical cases. The experience of this admixture of cases demonstrates forcibly the soundness of the objection to such admixture put forward by Dr. Murchison. It was found at once that fever patients admitted in the manner named caused

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the spread of contagion amongst other patients and amongst the nurses. Last autumn, a case of typhus having been introduced into the Infirmary, the disease spread quickly; two of the nurses were attacked, and one died; several of the general patients were also attacked, and, to add to the disaster, certain patients left the Institution from sheer terror, and conveyed the poison and the disorder into families residing in the neighbourhood.

It would appear also that in some instances typhoid fever has arisen "spontaneously" in the Infirmary. Mr. Orton, the late House-Surgeon, in a letter written and published during the present year, states, from his own observation, that in two cases fine, healthy young women were admitted into the so-called outer ward within a few weeks of each other. They both took typhoid fever, neither of them having been previously exposed to the contagion, and they both died. Mr. Orton attributes their deaths to the defective drainage in the ward.

The Nursing System.

The nursing system is most inefficient, and will, it is to be hoped, be remedied in a new Hospital as surely as the other evils, to which attention has been drawn. The nurses, one and all, appear to be obliging, kind women, but overworked and depressed. This is not to be wondered at. In seventeen wards, containing an average of 106 beds, there are four day nurses and two night nurses. To help them they have *two scourers*, and in the accident ward the house porter, who has many other important duties (including attendance in the "burnt ward"), takes the main charge. But is it possible to imagine the attention that can be paid to the patients, on thirty-seven of whom one nurse must alone attend? The reason of this deficiency is want of accommodation. In a Hospital where, as it sometimes happens, two patients have to be put into one bed, where is there room for nurses and attendants?

Diet of the Hospital.

Objection has been made to the diet of the Infirmary, and with little less justice than in the case of the other complaints that have been raised. The table subjoined gives all the facts. It shows at best that, whatever may be said of quantity, quality of food is not an element in the calculation and in the practical argument as to the best means of feeding 106 sick people.

	Milk Diet.	Low Diet.	Middle Diet.	Full Diet.
Breakfast	1 pt. milk. 4 oz. bread.	1 pt. tea. 2 oz. bread and butter.	1 pt. tea or cocoa. 6 oz. bread and butter.	1 pt. tea or cocoa. 6 oz. bread and butter.
Dinner	1 pt. milk. 4 oz. bread. 8 oz. pudding.	1 pt. gruel. 4 oz. bread.	1 pt. broth. 2 oz. bread. 10 oz. rice pudding.	For Men: Cooked meat, without bone, 4 oz. Potatoes, 8 oz. Rice pudding, 8 oz. Bread, 2 oz. Beer, ½ pt. For Women: Cooked meat, without bone, 3 oz. Potatoes, 6 oz. Rice pudding, 8 oz. Bread, 2 oz. Beer, ½ pt.
Tea	1 pt. milk. 4 oz. bread.	1 pt. tea. 2 oz. bread and butter.	1 pt. tea. 6 oz. bread and butter.	1 pt. tea. 6 oz bread and butter.
Supper	½ pt. gruel and sago alternately.	½ pt. gruel and sago alternately.	½ pt. gruel and sago alternately.	½ pt. gruel and sago alternately.
Daily allowance to each patient.	3 pt. milk. 12 oz. bread. 8 oz. rice pudding. ½ pt. gruel or sago.	3 pt. tea. 4 oz. bread. 4 oz. bread and butter. 1 pt. gruel. ½ pt. gruel or sago.	1 pt. tea or cocoa. 1 pt. tea. 1 pt. broth. 12 oz. bread and butter. 2 oz. bread. 10 oz. rice pudding. ½ pt. gruel or sago.	1 pt. tea or cocoa. 1 pt. tea. 12 oz. bread and butter. 2 oz. bread. 4 oz. meat for men. 8 oz. potatoes, ditto. 3 oz. meat for women. 6 oz. potatoes, ditto. ½ pt. beer. 8 oz. rice pudding. ½ pt. gruel or sago.

Extras to be specially ordered:—Chops, beef-tea, fish, poultry, sago, arrowroot, eggs, ale, porter, wine, or spirits.

In reference to this dietary, the Medical officers report that it is very imperfect; but, although they are thoroughly impressed with the necessity of change, the kitchen is so exceedingly small and inconvenient that they can only arrange to let each patient have mutton once a week, and that only by serving one or two wards each day. This, though an improvement upon the former daily rations of boiled beef, is but a scant variety, not nearly sufficient for sick persons.

Use of Alcoholics.

Alcohol is moderately used in the Infirmary. The amount of wine allowed can scarcely exceed one ounce per day for each patient, and brandy scarcely a quarter ounce. Ale, beer, and porter are rather freely given, probably at an average amount of one and a quarter to one and a half pint per patient per day.

PRACTICE OF THE HOSPITAL.

The Medical practice of the Hospital presents an extraordinary number of cases of chest affection. Pulmonary consumption stands very high in the list—first, perhaps, of all in respect to *fatality*. In addition to the acute and sub-acute inflammatory disorders of the chest, "potters' asthma" and chronic bronchitis are common maladies. Potters' asthma is a disorder that may be considered peculiar to the district and to the occupation. It is analagous to the consumption of coal miners and of knife grinders. It is due evidently to the inhalation of the dust, consisting of particles of fine dry clay, which are thrown into the air in the various processes of earthenware manufacture. The lungs in potters' asthma become firm and hepatised in parts.

Rheumatism in the sub-acute and chronic forms is also common. It prevails amongst the firemen of the pottery kilns, being due to exposure to constant changes of heat and cold. The same disorder is also frequent amongst miners. Heart disease, as a sequence of rheumatism, is, of course, prevalent. Lead colic and various degrees of paralysis from lead are prominent objects of clinical observation. These affections are peculiar to those who are engaged in the process of "dipping" in glazing the earthenware.

Taking the Medical diseases as presented by the number of cases rather than by the mortality, we may place the more prominent disorders in the following order, and may obtain a fair percentage average showing the relationship which the disorders bear, relatively, the one to the other:—

Bronchitis (including potters' asthma)	23·40 per cent.
Rheumatism, acute and chronic	23·00 ,,
Phthisis	16·00 ,,
Dyspepsia	7·00 ,,
Heart disease	6·00 ,,
Typhoid fever	4·90 ,,
Pneumonia	4·30 ,,
Pleuritis	3·00 ,,
Chorea	3·00 ,,
Paralysis (Hemiplegia)	3·00 ,,
Epilepsy	2·00 ,,

The above short table is deduced from the official report of cases treated in the year 1861—the year on which Dr. Farr bases his average of the mortality of the large Hospitals of the kingdom. It represents only the in-door cases, and does not include the diathetic conditions of disease, and certain maladies which are common in the out-patient department. Respecting these, Dr. Arlidge informs me that scrofula, affecting chiefly the glands and joints, is the prevailing diathesis, and that goitre is frequently met with.

On the Surgical side the most common diseases are venereal affections, diseases of the bones and of joints, diseases of the eye (mostly acute), and cancerous disorders. The Surgical operations are very numerous. The capital operations average from 55 to 70 a year, the minor from 40 to 50; the tooth extractions run from 800 to 900, and the treatment of fractures and dislocations make up 100. In the out-patient department there are no fewer than from 400 to 450 cases of accident annually.

The following table exhibits the average of the more important Surgical cases calculated on their percentages, for 1861:—

Fractures, simple and compound	16·25 per cent.
Diseases of bones and joints	15·50 ,,
Syphilis and gonorrhœa	13·00 ,,
Contusions	11·75 ,,
Ulcers	7·50 ,,
Burns	6·25 ,,
Abscess	5·75 ,,
Erysipelas	3·75 ,,

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Sprains	3·75 per cent.
Ophthalmia	3·50 ,,
Corneitis	3·25 ,,
Orchitis	3·00 ,,
Cataract	2·50 ,,
Calculus	1·00 ,,

The same observations as were made in respect to the Infirmary at Wolverhampton apply here, but not to so great an extent; the cases of accidents that are brought in are usually excessively severe, and the shock prolonged.

Mortality.

The general rate of mortality of the North Staffordshire Infirmary in the year 1861 was 50·51 per cent. on Dr. Farr's method of computation. This is almost 6 per cent. higher than the mortality of the Hospital at Wolverhampton, and 14 per cent. above that of Norwich and Stafford.

The Surgical Mortality is high by comparison with the other Hospitals we have had under notice. During the past ten years the mortality after operations has been in the proportion of one death after 8·80 operations, or at the rate of 11·31 per cent. Considering the bad condition of the Hospital, and severity of the Surgery, the wonder is that this mortality should not have been greater. Fortunately, the facts bearing on the mortality after operations, during the last ten years, have been kept, and the Medical staff were most ready to place them entirely at my disposal. They have been very carefully condensed by the House-Surgeon, Mr. Spanton, and are now for the first time laid before the Profession. A more valuable series of operative experiences could scarcely be presented.

Table of the Principal Operations performed at the North Staffordshire Infirmary during the Last Ten Years.

	Oct. 1853, to Oct. 1854.				1854–55.				1855–56.				1856–57.				1857–58.				1858–59.				1859–60.				1860–61.				1861–62.				1862–63.			
	Cured.	O. P.(a)	Died.	Total.	Cured.	O. P.	Died.	Total.	Cured.	O. P.	Died.	Total.	Cured.	O. P.	Died.	Total.	Cured.	O. P.	Died.	Total.	Cured.	O. P.	Died.	Total.	Cured.	O. P.	Died.	Total.	Cured.	O. P.	Died.	Total.	Cured.	O. P.	Died.	Total.	Cured.	O. P.	Died.	Total.
Amputation of the thigh	3	1	1	5	1	1	..	2	3	..	1	4	1	..	..	1	4	..	2	6	2	..	..	2	2	..	..	2	1	..	1	2	2	..	4	6	2	..	..	2
,, ,, leg	4	..	..	4	8	..	1	9	3	..	2	5	1	..	..	1	6	..	2	8	6	..	2	8	2	..	..	2	3	..	1	4	5	..	3	8	4	1	2	7
,, ,, foot	1	..	..	1	..	..	..	..	1	..	..	1	1	..	..	1	2	..	1	3	1	..	1	2	..	..	..	..	3	..	..	3	3	..	..	3	4	..	..	4
,, ,, arm and forearm	3	..	1	4	2	2	1	5	6	..	..	6	2	..	1	3	3	..	..	3	3	..	..	3	4	2	1	7	4	1	..	5	1	..	3(c)	4	2	1	..	3
,, ,, penis	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
,, ,, hand	1	..	..	1	1	..	..	1	1	..	..	1	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..
,, ,, fingers and toes	5	1	..	6	6	2	..	8	2	3	..	5	1	..	..	1	7	1	..	8	6	1	..	7	3	1	1(b)	5	6	3	..	9	2	..	..	2	5	5	..	10
Excision of the hip-joint	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
,, ,, knee-joint	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	1	..	..	1	1	1	..	2	3	..	..	3	..	..	..	..	1	..	..	1
,, ,, elbow	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2	..	..	..	..	1	..	..	1	..	1	..	1	..	2	..	2	..	..	..	..
,, ,, astragalus	1	..	..	1	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lithotomy	..	..	..	..	..	..	..	..	2	1	1	4	3	..	..	3	2	..	1	3	3	..	1	4	2	..	..	2	2	..	..	2	2	..	..	2	6	..	..	6
Ovariotomy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Lithotrity	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Trephining	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	1	1
Tracheotomy	..	..	..	..	..	..	1	1	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..
Removal of tumours	7	..	..	7	5	..	..	5	1	..	..	1	2	..	..	2	2	..	..	2	8	1	..	9	7	3	..	10	2	..	..	2	3	1	..	4	4	..	1	5
,, breast	3	..	..	3	1	1	..	2	4	..	..	4	..	..	..	..	1	1	..	2	3	1	..	4	2	..	..	2	1	..	..	1	1	..	..	1	2	..	..	2
,, cancer of tongue, lip, and testis	1	..	..	1	..	..	..	..	2	..	..	2	..	..	..	..	1	..	..	1	..	1	..	1	1	1	..	1	1	..	..	1	..	..	..	..	..	1	..	1
Operation for harelip	..	..	..	..	..	..	..	..	1	1	..	2	..	..	..	..	..	..	..	..	2	1	..	3	1	..	..	1	1	..	..	1	3	..	..	3	1	..	..	1
,, ,, phymosis	1	..	..	1	1	..	..	1	3	..	..	3	..	1	..	1	..	..	..	..	3	..	..	3	2	..	..	2	3	1	..	4	1	..	..	1	2	..	..	2
,, ,, radical cure of hernia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
,, ,, ,, ,, hydrocele	3	..	..	3	2	1	..	3	1	..	..	1	..	..	..	..	2	..	..	2	3	..	..	3	..	..	..	..	2	..	..	2	..	..	..	..	..	..	..	..
,, ,, prolapsus uteri	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	2
,, ,, strangulated hernia	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	1	2
Removal of sequestra	2	..	..	2	1	1	..	2	1	..	..	1	3	..	..	3	..	..	..	..	2	1	..	3	..	..	..	..	4	..	..	4	6	..	..	6	4	3	..	7
Ligature of brachial artery	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..
,, carotid artery	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Paracentesis abdominis	..	..	1	1	..	1	3	4	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..
,, thoracis	1	..	..	1	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	36	2	4	42	28	9	7	44	34	5	5	44	14	1	1	16	32	5	6	43	44	7	4	55	27	10	2	39	36	7	3	46	30	3	12	45	42	12	5	59

Total number of operations during ten years 433
,, deaths ,, ,, ... 49

(a) Out-patients. (b) Tetanus. (c) One from injury to spine

Chloroform.

Chloroform is administered in the North Staffordshire Infirmary for every kind of operation, except for the most trivial, and no accident whatever has occurred from its administration. At first, the inhaler invented by Dr. Snow was exclusively used, but in time this inhaler was thought to be inconvenient, and so here, as in many other similar institutions, it was thrown aside. For many years past the narcotic has been simply poured on to a silk handkerchief or a piece of lint, and held over the mouth and nostrils with room for the admission of air. The symptoms produced are watched with the utmost possible care, and one Practitioner, usually one of the Physicians, takes sole charge of the administration. The number of administrations amounts now to more than three thousand.

Points of Practice.

I cannot allow this opportunity to pass without saying that any inquiring stranger will find in the North Staffordshire Hospital as united and as energetic a Medical staff as could be met with anywhere. Possessing a magnificent field for observation and research, the members of the staff compete only in striving to gather together all the new facts of the day, and in subjecting proposed and reasonable methods of novel treatment to immediate and rigid trial. An annual report of all their proceedings would be one of the most valuable records of the day, and it is really to be hoped that such a record will soon be a part of the work of these gentlemen, whose only failing is that, either from an undervaluation of their own labours or too severe an exclusion, they keep their vast experience bottled up like a specimen in a museum, to be shown to all who may call, but not to go forth to those who cannot call. The late Dr. Addison, after visiting the Infirmary and seeing the richness of the practice, expressed, I am told, that he could wish to end his days no better than in becoming a retired student with the clinical experience of this Hospital for his field of clinical observation. Whoever visits the same place, anxious for the advancement of our wonderful science, will readily appreciate the feeling of the eminent "Guy's man" who said the wish that I have written.

One disadvantage is felt by the Medical officers of the Infirmary, and that is that they have few post-mortem experiences. Such is the extreme prejudice of the people against the examination of the dead, that an autopsy is of rare occurrence. Until a more enlightened sentiment prevails pathology as deduced from morbid anatomy will have a poor chance of original development in North Staffordshire.

In the Medical department of the practice of the Infirmary I find Dr. Arlidge treating acute rheumatism entirely by alkalies in full doses, and he informs me that in no case where the patient, on being brought in, has been free from cardiac complication, has that complication arisen. On comparing, also, the treatment of cases so treated with cases treated previously on other and less definite plans, Dr. Arlidge deduces that under the alkaline plan the period of treatment has been reduced one-third at least.

The reader who has done me the kindness to peruse, during the last ten or twelve years, the views I have proposed respect-

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ing the treatment of *every disorder* marked by hyperinosis, and terminating, in their worst form, in death from fibrinous deposition in the heart, will remember that on no subject have I pushed any point more determinately than in respect to the rational treatment of these disorders by the alkalies, and especially by ammonia. To my great satisfaction I find that Dr. Arlidge has undertaken to treat the leading disease of the type named, I mean pneumonia, with alkalies, and that, too, with complete success. Since the full application of alkaline treatment together with fluid nourishment, and a little wine when that is demanded, not a case has been lost.

As no case of pneumonia ever ended fatally during the first or second stages from any other cause than from fibrinous deposit on the right side of the heart, and as it is impossible for such deposit to occur if the blood is early and thoroughly rendered super-alkaline, the results obtained by Dr. Arlidge are as rational and accountable as they are satisfactory and commendable.

Dr. Arlidge has treated several cases of epilepsy with bromide of potassium, and with considerable success.

On the Surgical side I found various points of practice of great interest. I was so fortunate as to be present on operating day, and to see the operation for ovariotomy performed by Mr. Walker. In manipulative dexterity and coolness nothing more could be wished than was evidenced by the Surgeons in all their proceedings.

Regarding special points of Surgical practice, I may first note the fact, that three cases of ovariotomy have been performed in this Infirmary. The cases have in every instance been extreme, and the condition of the Infirmary has certainly not been very conducive to their recovery. To avoid risks, the cases have been isolated, and attention to the minutest details in after treatment has been rigorously pursued. The result is that all the patients have recovered.

Through the courtesy of Mr. Spanton, I am enabled to subjoin the particulars of these operations :—

Three Cases of Ovarian Disease — Operation in Each Case—Recovery.

Case 1.—S. B., 33, married, was admitted under Mr. Folker with a large ovarian tumour, on October 16, 1863 : the tumour had been noticed about twelve months before. She had been previously three times tapped with temporary relief. On admission, the circumference of the abdomen was forty-five inches. The operation was performed on October 18, chloroform being administered. The tumour was firmly adherent, and three and a-half gallons of fluid were drawn off. The pedicle, which was large, was secured with an iron clamp, and the wound was closed with deep and superficial wire sutures. The tumour was multilocular, weighing nine pounds. The operation lasted about an hour. The patient was for some time in a very low condition, and chloroform sickness was very obstinate. The bowels acted on the 21st, sickness was still troublesome. On the 28th the clamp was removed, the pedicle having sloughed nearly off. On November 1 the patient got up for the first time. The wound continued to discharge for a long time, but on December 21 she was discharged well..

Case 2.—M.S., aged 47, married, was admitted under Mr. Folker on March 22, 1864, with an ovarian tumour of about seven years' duration. The patient had never been tapped ; the circumference of the abdomen was forty-two inches.

The operation was performed on March 26 under chloroform ; the incision was about four inches in length ; the adhesions were slight, and the pedicle, which was long and narrow, was tied with whipcord—a harelip pin being first passed through it. The wound was secured with wire sutures. About twenty-two pints of fluid were drawn off, and the tumour altogether weighed 33 lbs. The patient made most satisfactory progress, never having sickness or other untoward symptom. A suppository of opium was given a few times, but no other medicines.

On April 3 the ligature came away, and on April 24 the patient could walk out of doors. She was discharged on May the 2nd well.

Case 3.—M. S., aged 37, married, was admitted under the care of Mr. Walker, on March 14, 1864, with ovarian tumour. The patient first noticed the tumour two years before, and of late it had rendered her life miserable. The circumference of the abdomen was thirty-nine and a-half inches. The operation was performed on April 2, under the influence of chloroform. The incision was about five inches in length ; the omentum was firmly adherent to the surface of the tumour, and the tumour contained thirty pints of fluid. It was unilocular. The pedicle was secured with whipcord and a harelip pin, being very slender and long. The patient was exceedingly low after the operation, and was sick a few times ; but after the second day she progressed very favourably, having not a bad symptom. The ligature came away on April 11. It is worthy of note that the patient menstruated a little three days after the operation.

On April 23 she was allowed to get up, and on April 30 was discharged quite well. No medicine was given besides an opiate suppository a few times, and a castor-oil enema.

In the last two cases the wound was dressed with a weak solution of iodine. This was done on the suggestion of Dr. Richardson, and it appeared to answer well in destroying the unpleasant smell. In both cases, the pedicle became attached to the edges of the wound.

Various cases of recto-vaginal fistula and of prolapsus uteri have been treated successfully by operation. Of the former class of cases the following is an excellent illustration :—

Case of Vaginal Fistula—Operation—Recovery.

(Under the care of Mr. WALKER.)

Ann Proudlove, a paintress, aged 22, single, was admitted an in-patient on January 19, 1864. She is of stunted growth, but has always had good health. In August last, after a labour of four days' duration, she was confined. The child was at maturity, and about the ordinary size, but stillborn. A Surgeon attended her at the confinement ; but no instruments were used. On the following day she first perceived the urine dribbling from her, and it has continued to escape involuntarily up to the present time ; she does not perceive that it is any worse now than it was at the commencement. On admission her under linen was thoroughly saturated with urine. She was in a state of the greatest discomfort from the continual contact of the wet clothes with the surrounding parts ; she had a very forlorn aspect, and her thighs, as well as the external organs of generation, were much excoriated from the constant dribbling of urine. A speculum was passed into the vagina, and, with the assistance of a probe in the urethra, a fistula was detected about three inches up the vagina between the uterus and vagina. She had no power of retaining the smallest quantity of water in the bladder, and never passed any by the urethra. She was ordered potas. bicarb., gr. xx. ; potas. nit., gr. v. ; tr. hyoscyami, mxx. ; aq., ℥j., ter die, and to have full diet, with four ounces of wine. She was quite willing to submit to an operation, and on January 30, being first under the influence of chloroform, was placed in the lithotomy position. Owing to a contraction of the upper part of the vagina by a fibrous band, which appeared to be the result of old sloughing, only one edge of the fistulous opening could be made visible ; this was well pared, and the other edge, which was not *in situ*, thoroughly scarified with a small knife. Three sutures of silver wire, fastened with three metallic clamps, were applied. A catheter was frequently passed for a week succeeding the operation, an opiate administered each night. and the bowels kept confined for five days. The clamps and one of the sutures were taken away nine days after the operation. Two of the sutures could not be found, but one came away in a few days, and the other was removed, with a collection of phosphates which had formed around it, a month afterwards. There was no sloughing ; the patient very soon expressed herself as "being more comfortable than she had been for many months before ;" she could retain her urine in the bladder to the amount of four to six ounces at one time.

On February 23 was allowed to sit up ; and on March 24, feeling quite well, and not a drop of water having escaped through the opening since the operation, she was discharged cured.

Several tumours of a glandular and fibrous nature have been lately successfully treated by passing a needle or fine tenotomy knife into them, so as to break down and disorganise the interior to a small extent. They afterwards become absorbed, and so gradually disappear.

The common carotid artery was ligatured some time ago in a child who had a large nævus below the ear. Convulsions came on after the operation, but the child made a perfect recovery.

Mr. Folker had a case of ligature of the external iliac for femoral aneurism a few months ago. The sac of the aneurism afterwards suppurated, but the patient is now quite well.

Mr. Folker never uses now any dressing in his cases of amputation, but puts in a number of sutures, and leaves the wound exposed, after the method suggested by Mr. Teale.

Mr. Walker has recently introduced into practice an ingenious pessary, made of earthenware. The pessary is hollow and highly glazed: it is either circular or oval in shape, and is made of three sizes. There is a hole in the centre large enough to admit the end of a finger, by which means the pessary can be withdrawn by the patient with the greatest ease, and replaced when required, without the assistance of a Surgeon. The pessary is perfectly smooth, and is not liable to abrasion from contact with the vaginal or other fluids; it is, therefore, cleanly in the highest degree. This, combined with the facility of removal, is, in fact, its chief advantage as an instrument, but it also has the merit of cheapness, which is no small recommendation, when it is required for Hospital practice. These pessaries are manufactured for Mr. Walker by Messrs. Pinder, Bourne, and Co., of Burslem.

Lastly, Mr. Spanton, the House-Surgeon to the Infirmary, reports to me that carbolic acid is found to be extremely useful in the treatment of scabies, and that it promises to replace sulphur ointment and the other common remedies.

The Library.

Three years since a grant of £50 was allowed for the library and the museum, and since then a grant of £10 a-year has been continued. The *Library* is in the board-room, and consists of a few hundred volumes, including many old works, a few new ones, and the Medical periodicals.

The Museum.

The *Museum* is small, but contains some very curious specimens. There is a specimen of a case which occurred in the year 1853, where a man, aged 45, who was admitted with dropsy died twelve days after admission. The left kidney, the specimen of which is now referred to, weighs five pounds four ounces avoirdupois. The enlargement is in the medullary structure, and is chiefly at the upper part of the kidney, the lower cones and the pelvis being natural. The renal vein is enormously enlarged. The opposite kidney was healthy, and weighed seven ounces and a-half. There is also a singular specimen of fracture of the skull. A tailor was brought to the Infirmary on June 25, 1854, for injuries received from falling into a marl pit. He showed on arrival a severe bruise on the right side of his forehead with laceration. Under treatment he recovered, but a month later he was seized with pain in the head which passed away, and returned again in a fortnight. On August 30, the pain in his head was intolerable; towards evening he became insensible. In the course of the following day he died. On examining the head an extensive fracture was found, extending from the cavernous sinus of the left side, and somewhat obliquely, through the tella turcica, to the orbital surface of the frontal bone on the right side. The bone was literally smashed in, to the depth of three-quarters of an inch, encroaching into the back part of the orbit and roof of the nose; the crista galli was pushed to the left side, and the cavity formed contained about half an ounce of pus; the brain was pulpy. The frontal bone, externally, is broken into ten irregular segments, two of the fractures extending through the inner table. Some of the broken fragments had been quite detached, but were reunited by a firm callus. Purulent matter was found in the spinal canal as low down as the dorsal region. The great peculiarities of this case were, that the frontal bone gave no external evidence of fracture, that strabismus was never present, and that no head symptoms were developed until a month after the accident. The symptoms evidently followed on the formation of pus.

There is a model of a tumour that was removed from the tongue of a woman aged thirty-eight years. The tumour, which was fibrous, was situated on the dorsum of the tongue, and a little on the left side. It was nearly globular, and measured eight inches and a-half round in the horizontal, and seven and a-half in the perpendicular direction. It weighed exactly a quarter of a pound avoirdupois, after removal. It had caused partial absorption of the lower jaw and displacement of several teeth, with loss of some others. The case made a good recovery. Mr. Folker was the operator.

There is a cabinet, presented by the late Mr. Turner, containing some valuable specimens of diseased bones and resections. No history attaches to the specimens.

The present Medical staff are most anxious to make the museum worthier of the Hospital: they are much impeded by the difficulty, already referred to, of obtaining permission to conduct post-mortem inquiries.

In these observations I have condensed into the limited space necessarily at my disposal the leading facts connected with the history of the North Staffordshire Infirmary. If I have been severe on the defects of the Institution, I have also been perfectly candid as to its influences for good; and I hope the members of the Medical staff will correct me if a word has been said that, even by accident, may be thought hypercritical.

It is for the sake of every one connected with the Infirmary, indeed, that the exact facts be stated, because it is an Institution having but one object, that of saving life. That in its day it has performed its part right well is true; that its management has had no share in the production of those causes by which, in more senses than one, it is undermined, is equally true; but, admitting these facts, it is also true that under existing circumstances its power for good is now crippled and narrowed. As regards construction, it is out of all character—a blot on the map of sanitary science; as regards position, it is equally faulty: and if its supporters would really see a Hospital in the Potteries that shall continue to do them honour; if for their benevolence they would like to read off a reduction in the rate of mortality—that sound proof that money spent on Hospitals is money not lost—they will allow no tradition, no idea of expense, no temporary agitation to prevent them razing the old building to the ground, and erecting a pavilion Hospital in some new and more favoured spot, where the air is unpolluted, where there is rest for the sick, and where a surrounding healthy vegetation tells the story that life is there respected and held at its prime worth.

GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

MINUTES OF MEETING, SATURDAY, MAY 7, 1864.

ROYAL COLLEGE OF PHYSICIANS, LONDON.

Present—

Dr. Alderson.	Dr. Andrew Wood.	Dr. Corrigan.
Mr. Arnott.	Dr. Thomson.	Dr. Sharpey.
Mr. Cooper.	Dr. A. Smith.	Dr. Quain.
Dr. Acland.	Dr. Lect.	Mr. Rumsey.
Dr. Embleton.	Dr. Apjohn.	Dr. Stokes.
Dr. Storrar.		

DR. FRANCIS HAWKINS, *Registrar.*

The Minutes of the last Meeting were read and confirmed.

1. Moved by DR. ACLAND, seconded by MR. COOPER—"That, in the absence of the President, Mr. Arnott be requested to take the chair."—Agreed to.

2. A letter having been read from the King and Queen's College of Physicians in Ireland, and also two letters referred to in that letter, moved by DR. A. SMITH, seconded by DR. CORRIGAN—"That the letter from the King and Queen's College of Physicians, respecting the licence granted by the Apothecaries' Hall of Ireland, along with the letters Nos. 2 and 3, referred to in that letter, be entered on the Minutes."

The Motion having been put to the vote, the Chairman declared that the Motion was not carried, the numbers for and against it being equal.

The CHAIRMAN being called upon to give a casting vote declined to do so; whereupon DR. ANDREW WOOD stated that he intended to raise the question at a future time, whether the President or Chairman for the time be not bound to give a casting vote, "in case of an equality of votes."

DR. STORRAR required that the names of those who voted for and against the Motion, and of those who did not vote, be entered on the Minutes.

For	6
Against	6
Declined to vote	1

The *President* took the chair at Two o'clock.

Moved by DR. A. SMITH, seconded by DR. CORRIGAN—"That when the General Medical Council expressed its opinion, in the resolution of June 2nd, 1863, 'that registered Licentiates of the Apothecaries' Company of Dublin are, as Apothecaries, entitled to practise Medicine in Great Britain and Ireland,' it did not intend to convey that the licence of the Apothecaries' Company of Ireland should be considered for the public service as a Medical qualification to be recognised as equivalent to a degree in Medicine, or to a licence from a College of Physicians; or to express an opinion on the claim of the Apothecaries' Hall of Ireland to give a licence in Medicine, the question being one involving the legal interpretation of an Act of Parliament, which the Council is not competent to decide."

DR. STORRAR moved, and DR. ACLAND seconded, the previous question, which was carried.

DR. CORRIGAN required that the numbers of the majority and minority, and of those who did not vote, be entered on the Minutes.

Majority	8
Minority	6
Declined to vote	1

3. Moved by DR. ANDREW WOOD, seconded by DR. EMBLETON—"That the Executive Committee be directed to take the opinion of counsel on the question, whether or not, in the case of an equality of votes upon a division, the President or Chairman of the Council for the time being is bound to decide the matter in hand by giving his casting vote."—Agreed to.

4. Read the following letter from the Catholic University of Ireland:—

"Catholic University of Ireland, 86, Stephen's-green,
"Dublin, May 2, 1864.

"SIR,—In reply to your letter of April 29 ult., I am directed by the Rector and Council of this University to say that they were not aware that the

General Medical Council was in any way bound by Act of Parliament or otherwise not to recognise the examinations of other than Chartered or Incorporated Educational Bodies. Our University believed, and still believes, that your Council is at liberty to admit the Preliminary Examinations of any public body of recognised literary and scientific merit. That this University is known as a public body appears from the letter of your District Medical Council in Dublin, addressed to me as Secretary of the Catholic University; and the literary and scientific merit of this Institution is, we respectfully submit, sufficiently clear from our calendar, and from other public documents. The fact of our School of Medicine, as well as other Medical schools in Dublin, although not Chartered or Incorporated Institutions, being recognised by your Council, is, we again submit, sufficient proof that a charter or legal incorporation is not in every case required for recognition. Being aware that your Council possesses no coercive power for enforcing your regulations regarding general studies, the Rector and Council of this University were of opinion that they were acting in conformity with your wishes and with the Act of Parliament in offering their aid to carry out the enlightened views of the General Medical Council with respect to the general education of Catholic Medical students, who now frequent the halls of this University.

"I am, Sir, your obedient servant,
(Signed) "THOMAS SCRATTON, Sec. Cath. Univ.
"The Registrar, General Council of Medical Education,
"32, Soho-square, W."

Moved by Dr. ANDREW WOOD, seconded by Dr. STORRAR—"That the Registrar be directed to inform the Catholic University of Ireland that they cannot acknowledge its entrance examination as long as it has no Charter of Incorporation."—Agreed to.

5. Moved by Dr. CORRIGAN, seconded by Dr. QUAIN—"That a communication be addressed to the Secretary of State for the Home Department drawing his attention to the present defective state of the law regarding the practice of pharmacy, under which any person, however ignorant, may undertake it; and expressing the opinion of the General Medical Council that some legislative enactment is urgently called for to ensure competency in persons keeping open shops for dispensing Medicines and for the compounding of Physicians' and Surgeons' prescriptions."—Agreed to.

6. Moved by Dr. APJOHN, seconded by Dr. CORRIGAN—"That the Army and Navy Medical Boards be requested to furnish the Medical Council annually with information on the following points:—*a*. The total number of candidates for Medical commissions who have presented themselves for examination. *b*. The number of those who passed and of those who did not pass the examinations of such Boards, distinguishing the number of successful and of unsuccessful candidates under the respective heads of the several Licensing Bodies mentioned in Schedule (A) to the Medical Act, and specifying their qualifications, Medical and Surgical, and whether they had failed in Medicine or Surgery. *c*. The general nature and scope of the examinations conducted by the said Boards, together with a list of the questions proposed by the examiners."—Agreed to.

7. Read the following letter:—

"*To the General Council of Medical Education and Registration.*

"Gentlemen,—Having lately read that it is the intention of the English Government to subscribe for 2000 copies of the *Medical Register*, and as it appears that the Committee appointed to consider and report on the publication and distribution of the same has submitted a list of public officers and functionaries to whom the said *Register* should be supplied, I take the liberty of offering some remarks on the subject.

"The General Council is doubtless aware that a large number of English Medical men are scattered throughout the globe, whose duties are almost entirely confined to practising on their own countrymen. The majority of these Practitioners have received a regular English education; a minority have been educated in foreign schools. Some of the former, wishing to obey the spirit and letter of the English laws, have regularly registered; others have omitted to do so.

"At the present time certificates, etc., are accepted from all English Medical men by Her Majesty's Ministers and Consuls, without any consideration of their being registered or not, or of their possessing English Medical degrees or otherwise. As a consequence of this equality, non-registered Practitioners are placed on the same footing as those who have been registered, and who have received their education at a considerable cost and in a regular manner in England.

"I take the liberty of suggesting—

"1st. That the General Council take into consideration the advisability of calling the attention of Her Majesty's Government to the justice of placing those Medical men residing abroad who conform to the laws of their country on the same footing as Medical men residing in the United Kingdom.

"2nd. That *Registers* be supplied to Her Majesty's Ministers and Consuls for the furtherance of that object.

"In a pecuniary point of view, the registration of the non-registered Practitioners residing abroad, and the supply of Registers, would add considerably to the income of the General Council, and would, at the same time, be an act of justice to a large number of regularly-educated English Physicians and Surgeons.

"It would not be necessary to supply copies of the Register every year.

"Some difficulty might arise in carrying out these suggestions in the English Colonies, where Medical schools already exist; but this objection cannot hold good on the Continent, to which English visitors resort in great numbers.

"I have the honour to be, Gentlemen,
"Your most obedient servant,
"JOHN GASON.
"12, Via della Mercede, Rome, July 1st, 1863."

Moved by Dr. ANDREW WOOD, seconded by Dr. EMBLETON—"That the Registrar be directed to write to Mr. Gason, informing him that the Medical Council have no power to comply with his proposals."—Agreed to.

8. Read, the following letter from the Royal National Life Boat Institution:—

"14, John-street, Adelphi, London, October 17, 1863.

"Sir,—I am directed to transmit to you the accompanying circulars, copies of which this Institution is now circulating amongst some members of the Medical Profession, with the view of eliciting their opinions on the relative merits of the plans of Dr. Marshall Hall and Dr. H. R. Silvester, for the restoration of the apparently dead from drowning.

"The Committee of the Royal National Life Boat Institution would feel much indebted to you if you would do them the favour to lay the same before the General Council, with a view to their obliging the Society with their opinion on this very important subject.

"I have the honour to be, Sir,
"Your very obedient servant,
(Signed) "RICHARD LEWIS, Secretary.
"Robert Bell, Esq."

Moved by Dr. ANDREW WOOD, seconded by Dr. EMBLETON—"That the Registrar be directed to write to the National Life Boat Institution, acknowledging their communication, and stating that the question proposed in it does not come within the sphere of the duties of the Council."—Agreed to.

9. Read, the following letter:—

"*Parish of Bermondsey, Surrey.*

"Vestry Offices, Maltby-street, S.E., October 27, 1863.

"Gentlemen,—I am directed by the Vestry of this parish to call your attention to the number of deaths which are registered in this district 'Uncertified,' to apprise you that they have reason to believe that the persons who attend the cases during illness are unregistered and unqualified Practitioners, and to express a hope that you will direct inquiry to be made into the circumstances, with the view of remodying such an unsatisfactory proceeding, and also of protecting the public against unqualified Practitioners.

"I am, Gentlemen,
Your most obedient servant,
"(Signed) "J. I. RICHES, Assistant Clerk.
"To the Council of Medical Registration, Soho-square."

Moved by Dr. ANDREW WOOD, seconded by Dr. EMBLETON—"That the Registrar be requested to write to Mr. J. I. Riches, and to state that the matter referred to in his letter to the Medical Council does not lie within the province of the Council."—Agreed to.

10. The Report of the Finance Committee (Minutes No. 65, p. 7,) was considered.

Moved by Dr. SHARPEY, seconded by Dr. ALDERSON—"That the Report of the Finance Committee be adopted."—Agreed to.

Moved by Dr. SHARPEY, seconded by Dr. ALDERSON—"That £50 be presented to Dr. Garrod, in acknowledgment of special services rendered in the publication of the Pharmacopœia, at the request of the Executive Committee."—Agreed to.

Moved by Dr. SHARPEY, seconded by Dr. ALDERSON—"That gratuities be given, of £30 to Mr. Bell, and £20 to Mr. Roope, the clerks, for extra trouble and efficient service in conducting the sale of the Pharmacopœia."—Agreed to.

Moved by Dr. SHARPEY, seconded by Dr. ALDERSON—"That Messrs. Spottiswoode's extra claim of £75 be allowed and paid."—Agreed to.

Moved by Dr. SHARPEY, seconded by Dr. ALDERSON—"That two members of the Executive Committee be annually appointed to audit the accounts of the Council."—Agreed to.

11. Moved by Dr. ANDREW WOOD, seconded by Dr. EMBLETON—"That the Council now proceed further to consider the Report of the Select Committee on Education."

Amendment moved by Dr. ACLAND, seconded by Dr. STOKES:—

"That in the absence of the chairman of the Education Committee (Dr. Christison), of the representative of the University of Edinburgh (Mr. Syme), of the representative of the University of Cambridge (Dr. Paget), and at the twelfth day of the Session of the Council, it is inexpedient to enter upon the consideration of the details of Professional study and examination; but instead thereof—

"That a Committee be appointed to draw up and report to the Council of 1865 what are the subjects of examination which should be required of all students prior to their prescribed source of Professional study;

"That a Committee be appointed to draw up in detail a scheme of the scientific and Professional subjects of which knowledge should, in the judgment of the Medical Council, be required from every person before he receives a diploma or qualification testifying that he possesses the requisite knowledge and skill for the efficient practice of his Profession; and that the Committee report at the next meeting of the Medical Council;

"That a Committee be appointed to report in detail at the commencement of the next Session of Council, as to the best mode of organising an efficient inspection of all examinations conducted by the several Licensing Bodies, in conformity with Sect. XVIII. of the Medical Act;

"That the Committees (if appointed) be requested to correspond with each other, to obtain information from such persons unconnected with the Council as they may see fit, and to prepare in type, in such form as may be agreed on with the Registrar, their respective Reports, if possible, before Easter of 1865, or at an earlier period if required by the President."

The amendment was negatived.

Dr. ANDREW WOOD required that the numbers for and against the amendment be entered on the Minutes:—

Majority	8
Minority	4

The motion having been put to the vote, was also negatived.

12. Moved by Dr. ANDREW WOOD, seconded by Dr. A. SMITH—"That the various letters from the Bodies mentioned in Schedule (A) of the Medical Act, explanatory of their Regulations, which have already been printed in proof, be laid on the table of the Council, and entered on the Minutes."—Agreed to.

13. Dr. EMBLETON presented the Report of the Committee on the Returns from the Licensing Bodies:—

Report.

The Council having directed that the Table of Returns under the 23rd Recommendation of the Council, viz., "That returns from the Licensing Bodies in Schedule (A) be made annually on the 1st of January, and in the subjoined form, to the General Medical Council, stating the number and names of the candidates who have passed their first as well as their second examinations, and the number of those who have been rejected at the first and second examinations respectively; and that the Registrar forward a sufficient number of forms, with a notice for their being returned, in due time," shall be the only table at present prepared by the Committee on account of the revision and alteration of the Recommendations of the Council on Medical Education, your Committee beg to lay that table, with an explanatory note appended, before the Council.

D. EMBLETON, *Chairman.*

Table of Returns under Recommendation 23.

Licensing Bodies.	Passed. First Examin. Number.	Passed. Second Examin. Number.	Rejected. First Examin. Number.	Rejected. Second Examin. Number.
R. Coll. Phys. London ..	73	74	17	20
R. Coll. Phys. Edinburgh ..	151	146	22	14
K. Q. Coll. Phys. Ireland ..	..	66	..	17
R. Coll. Surg. England ..	465	495	128	55
R. Coll. Surg. Edinburgh ..	142	121	34	11
Fac. Phys. Surg. Glasgow ..	17	76	2	25
R. Coll. Surg. Ireland ..	138	138	36	36
Soc. Apothecaries, London ..	323	305	34	8
Apothecaries' Hall, Dublin ..	28	20	5	3
University of Oxford	3	..	1	..
,, Cambridge ..	4	5	..	..
,, Durham ..	..	..	..	..
,, * London	21	24	16	..
,, Edinburgh ..	(1st) 47 (2nd) 82	.. (3rd) 62	(1st) 32 (2nd) 6	.. (3rd) 2
,, Aberdeen ..	(1st) 39 (2nd) 37	.. (3rd) 82	(1st) 3 (2nd)11	.. (3rd) 9
,, Glasgow ..	59	70	12	8
,, St. Andrews ..	10	..	1	..
,, Dublin	12	37	2	8
Queen's University, Ireland ..	42	26	13	8
	1708	1687	375	224

Moved by Mr. Arnott, seconded by Mr. Cooper—"That the report be received and entered on the Minutes."—Agreed to.

14. Dr. Embleton presented the Report of the Committee appointed to revise the standing orders.

Report.

The Committee on the Standing Orders and Regulations having arranged and numbered them, beg to lay them before the Council, and recommend that they be printed.

An alteration has been made in the "Scale of Travelling Expenses," substituting for

	£	s.	d.
Leeds	4	4	0
and			
Worcester	4	4	0

the following:—

Cheltenham	4	4	0
Southampton	2	2	0

D. Embleton, *Chairman.*

Moved by Dr. Embleton, seconded by Dr. Arjohn:—"That the Report of the Committee on the Standing Orders be received and adopted."—Agreed to.

15. Moved by Dr. A. Smith, and seconded by Dr. Corrigan:—"That the decision on the resolution moved by Dr. Smith, and seconded by Dr. Corrigan, in the early part of this day, was informal; inasmuch as 'the previous question' was put without the amendments on such resolution being permitted to be considered."

The motion was negatived.

16. Moved by Dr. Sharpey, seconded by Dr. Aquilla Smith:—"That the Pharmacopœia Committee be authorised to draw on the treasurers, to an extent not exceeding £100, for expenses which may be incurred in carrying out the objects of its appointment."—Agreed to.

17. Moved by Dr. Sharpey, seconded by Dr. Storrar:—That the cordial thanks of the Council be tendered to Mr. Hawkins, for the unremitting care and attention he has bestowed on the business of the Council for the five years he has discharged the duties of Secretary; and that £105 be now presented to him in acknowledgment of the sense which the Council entertains of his valuable services."—Agreed to.

18. Moved by Dr. Acland, seconded by Dr. Andrew Wood:—"That the Report of the Select Committee on Education be forwarded to the various bodies in Schedule (A), with a letter from the Registrar, to the effect that the Report is under the consideration of the Council, and calling their attention to the suggestions of the Report, and soliciting their observations thereon; also, distinguishing the resolutions which have been adopted by the Council from those which have not yet been considered; and that it be referred to the Executive Committee to carry this resolution into effect."—Agreed to.

19. Moved by Dr. Smith, seconded by Dr. Andrew Wood:—"That the standing order as to the hour of adjournment be suspended."—Agreed to.

20. Moved by Dr. Andrew Wood, and seconded by Dr. A. Smith:—"That the powers and duties delegated to the Executive Committee, in accordance with Sect. IX. of the Medical Act, shall be vested in the Committee until the next Meeting of the General Medical Council."

21. Moved by Dr. Andrew Wood, seconded by Dr. Aquilla Smith—"That the thanks of the Council are due, and are hereby tendered, to the Treasurers, Dr. Sharpey and Dr. Quain, for their important services."—Agreed to.

22. Moved by Dr. Andrew Wood, seconded by Dr. Aquilla Smith—"That the thanks of this Council are eminently due, and are hereby offered, to the Royal College of Physicians, London, for their obliging and courteous accommodation during the present session of the Medical Council."—Agreed to.

23. Moved by Dr. Andrew Wood, seconded by Dr. Aquilla Smith—"That a gratuity of fifteen guineas be given to the resident officials of the College of Physicians for services rendered to the Council."—Agreed to.

24. Moved by Dr. A. Smith, seconded by Dr. Andrew Wood—"That a gratuity of ten guineas be given to Mr. Bell, and the same to Mr. Roope, the clerks, in consideration of their extra services during the present lengthened session of the General Medical Council."—Agreed to.

25. Moved by Dr. Andrew Wood, seconded by Mr. Arnott—"That the thanks of the Council are cordially tendered to the President for his kind, courteous, and efficient services during the present session of the General Medical Council."—Agreed to.

* By the Regulations of the University of London (see Calendar, 1864, page 106), the first examination for the degree of M.B. includes four subjects, viz., Anatomy, Physiology, Materia Medica and Pharmaceutical Chemistry, and Organic Chemistry; but candidates for this examination are permitted to defer the subject of Physiology to a following year.

The list headed "Entire" contains the names of those undergraduates who elected to pass the examination in all four subjects at once in 1863.

That headed "Excluding Physiology" contains the names of those who elected to be examined in three subjects in 1863, and to defer the fourth, viz., Physiology, to a future year.

That headed "Physiology only" contains the names of those who, having elected to pass in a former year in three subjects, passed in 1863 in Physiology.

REVIEWS.

Lectures on the Diseases of Women. By Charles West, M.D., F.R.C.P., Examiner in Midwifery in the University of London, etc. Third Edition. London: Churchill. 1864. Pp. 687.

Any one familiar with the character of the leading Practitioners in London will recognise in the author of this book a man well versed in Professional literature, a good pathologist, and one well fortified with all the experience and authority derivable from the offices of Professor and Physician to one of the largest Hospitals. His opinions, too, if they have any bias, are considered to incline to the side of conservatism, and anything clap-trap or sensational would be sure to meet with his reprobation. We look, therefore, with curiosity to the volume before us, as we should to the contents of a crucible in which something of mixed base and true metal have been submitted to a severe ordeal.

In the second edition of this work, Dr. West gives three reasons for rejecting the operation of ovariotomy.

"1st. The high mortality, which experience and dexterity have failed to lessen.

"2nd. The special hazard attendant on those cases where the operation is specially indicated, such as in the young, and where the tumour is multilocular, and contains more or less or solid matter.

"3rdly. The uncertainty as to the prognosis even in the most favourable cases."

We turn, therefore, with interest to see what the last six years have done in confirming or altering his conclusion. The fatality of the operation in completed cases is very little, if at all, lessened. Dr. Atlee's tables down to the year 1850 give a mortality of 32·27 per cent. The operations of Mr. Baker Brown, Mr. Hutchinson, Dr. Tyler Smith, and Mr. Spencer Wells, all performed since that period, show a death-rate of 30·3 per cent. While the statistics of Dr. Clay, in the appendix to the translation of Kiwisch on "Diseases of the Ovaries," display an increase in the deaths from 43 to 46 per cent. in the cases before and after 1855.

The increased experience of Mr. Spencer Wells shows no diminution of the dangers of ovariotomy, of his first 50 cases 17 died; of his last 43, 15 died.

The duration of life after the operation has not been much prolonged; in 66 fatal cases six years ago, Dr. West found that 37 cases or 54·4 per cent. died within 72 hours; while Dr. Clay's table shows 50·6 per cent. of deaths within a similar period.

To what, then, are we to attribute the change of opinion thus expressed by the author?

"I think, then, that we are now bound to admit ovariotomy as one of the legitimate operations of Surgery; as holding out a prospect, and a daily-brightening prospect, of escape from a painful and inevitable death, which at last, indeed, becomes welcome, only because the road that leads to it conducts the patient through such utter misery."

First, the diagnosis has very greatly improved, and the number of cases in which the operation has had to be partially or entirely abandoned has very much decreased. Dr. Clay gives 107 cases before 1855 to 6 after that year. This is doubtless to be received with caution, as other similar cases may not have been published. Mr. Spencer Wells mentions six cases and Dr. West one more.

2ndly. Youth is not an objection to the operation. Mr. Spencer Wells had eight successful cases between the ages of 17 and 25; in fact, he had no fatal case before 26.

3rdly. A compound cyst, with more or less solid matter, is not an obstacle to its successful performance. In thirty-three successful cases of the above Surgeon only two were simple cysts.

And, lastly. The reduction of the risk of hæmorrhage, the return of the pedicle into the abdomen, and the more judicious after treatment, have all tended to bring about the change which we see in Dr. West's opinion.

The views of Dr. H. Bennet are controverted in this as in former editions. The liability to ulceration of the os and hypertrophy of the cervix, said by this author to depend, to a great extent, upon the greater vascularity of the cervix, compared with the fundus, is denied by Dr. West, who shows that the contrary is the fact—that ulceration may exist to a considerable extent without producing the symptoms attributed to it, and without being followed by hypertrophy; as also, on the other hand, that hypertrophy may be present without any ulceration. He considers that the good which is supposed to result from the use of caustics may fairly be attributed to the rest and other hygienic measures so strictly enforced.

Sub-acute ovaritis forms another subject for comment in this as in the second edition. The difficulty of determining when the process of ovulation has passed from the physiological to the pathological state has led Dr. Tilt to assume that the pain which we frequently have in the region of the ovaries, attended with some slight enlargement of these organs, is due to a sub-acute form of inflammation. In common with Dr. Churchill, our author considers the pain to be neuralgic in character, and refers to the rarity with which we meet with pathological changes compared with the frequency of this form of pain.

Organic stricture of the neck of the womb Dr. West considers to be of rare occurrence, depending generally, when it exists, upon imperfect development of the generative organs as a whole. It may exist as the result of inflammation; and he mentions a case in which he was unable to pass even the finest bougie, resulting from a previous confinement. Holding these views, hysterotomes and cervical dilators meet with no favour in his eyes—on the contrary, he considers them to be injurious, and has seen pelvic abscesses follow their employment.

Anatomy, Descriptive and Surgical. By Henry Gray, F.R.S. etc. Third Edition. By T. Holmes, M.A. Cantab., Assistant-Surgeon and Lecturer on Anatomy at St. George's Hospital. Longmans. 1864.

It is unnecessary to repeat once more the deserved commendation which this work of Mr. Gray has met with. In many respects we consider it the best treatise of the kind which has been published. In the first place, it is free from the extreme dryness, verging on pedantry, which disfigures some rival publications; and anatomy is a subject of such necessary detail and complexity that hardly any device can be objectionable which facilitates its mastering and retention by the student. Moreover, the large size of the volume contrasts favourably with other contemporaries. Erasmus Wilson's little manual, though deservedly a favourite with students, from its lucid arrangement, is occasionally incorrect in detail, and offers too confined a space for illustration. The woodcuts in this work are abundant and admirable, especially those which show the results of fracture, dislocation, and the like. These might prove of the greatest service, not only to students, but also to Practitioners who wish to refresh their memory on some particular point with a view to diagnosis or treatment.

Mr. Holmes, who assisted the author in the first edition, now edits the third without change on the original scheme or any modification in its execution. His task "has been restricted to an attempt to give greater precision to the language, and to supply the necessary references to anatomical works of merit which had been published since the date of the last edition."

We heartily recommend the book to all ranks of the Profession.

Evening Thoughts. By a Physician. Third Edition. London: Van Voorst. 1864. Pp. 143.

We have been a good deal gratified with the reading of this little book. It is the work of a Christian philosopher who puts his Christianity as a practical religion first and his philosophy second, but who maintains everywhere that reason and revealed religion are so far from being in opposition that both teach the same moral lessons. It is none the worse, too, for being fragmentary—perhaps the better, because the writer can stop in his deductions when he pleases, or where he feels that he is getting out of his depth. The reader will mostly be able to accompany him as far as he goes, and sometimes will be disposed to try a step or two in advance. This is again an advantage, inasmuch as the train of thought followed is always a healthy one, and if pursued in the author's spirit is calculated to charm while it benefits. The subjects of the "Evening Thoughts" are such as these:—"Head and Heart," "Imagination," "Conscience," "Philosophy and Christianity," "Discourses," "Contemplation and Action," "Sundays," "Systematising Divines," "Fixed Ideas," "Demonology," &c. Altogether some fifty topics are more or less lightly touched upon.

The Seven Sources of Health. By W. Strange, M.D. Henry Renshaw, 356, Strand. 2s. 6d.

This is a popular Medical book, and one marked by good sense and freedom from quackery. The Seven Sources of Health are—Air, Light, Heat and Climate, Food and Drink, Exercise, Bathing, and Sleep; to each of these a chapter is devoted, besides one in the beginning on Physiology, and one in the end on Health of Mind. The author writes like an earnest, conscientious man with a thorough knowledge of his Profession and of the allied sciences, and a keen desire of imparting his knowledge; we might even venture to say that at times he even falls into a kind of *preaching* tone. But to counterbalance this defect (if it be one), we must admit that he has a keen eye to the points of a pretty woman, and dilates upon them with a sincerity with which we fully sympathise. He does not dabble in matters purely Medical, nor make his book an advertisement for "peculiar views" of his own as to the treatment of any pet disease; therefore, his Professional brethren may fairly recommend it to readers who desire to know how they may best avail themselves of the Seven Sources of Health.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, April 5 and 19.

Mr. Prescott Hewett, President.

(Continued from page 552.)

Dr. Ogle showed a

FIBRINOUS PLUG OBLITERATING A PART OF THE MIDDLE CEREBRAL ARTERY, AND CAUSING A SOFTENING OF THE BRAIN IN THE NEIGHBOURHOOD.

The fibrinous plug was adherent to the arterial walls, and decolourised, and the softened brain below the surface was of a very soft consistence, extending as far inwards as the right corpus striatum. The heart and its valves were healthy, but adherent to the inner surface of the ascending aorta, at about one inch above the aortic valve, very large fibrinous deposits, the so-called "vegetation," were met with. Masses or wedges of fibrinous deposit were also found in the spleen and one kidney. The patient (an intemperate man, aged 34), who had been subject to epileptic seizures, was admitted into St. George's Hospital with pain in the right side of the head and right temple, and having a peculiar "heaviness" of manner; the left arm was very cold, and weaker than the right one; the muscles of the left side of the face were wanting in power and expression; the left pupil was dilated; and shortly after admission he had an epileptic attack, in which the muscles of the left side of the body were much convulsed, and the mouth drawn to the right. Eventually, gangrene of the great toe, and afterwards of the dorsum of one foot, came on; and he sank and died one month after admission.

SECONDARY ABSCESS OF THE BRAIN FOLLOWING AMPUTATION.

The purulent accumulation was of about the size of a filbert, and situated on the lowest part of the middle lobe of the left cerebral hemisphere. The other parts of the brain were healthy. The patient, a man aged 35, had left the Hospital after an amputation of the forearm. Having been frequently drunk, he was again admitted, owing to shivering, sweating, and vomiting. The rigors recurred daily, at almost the same hour, reminding one of ague. An abscess formed in one of the buttocks, the general surface became very yellow, and he sank and died twenty-seven days after admission. After death, in addition to the cerebral abscess, a small part of the ulna was found necrosed, and a large abscess was found within one of the deltoid muscles.

EXTRAVASATION OF BLOOD INTO THE PONS VAROLII, AND ALSO, BUT TO A SLIGHTER DEGREE, INTO THE LEFT OPTIC THALAMUS AND RIGHT CORPUS STRIATUM.

The pons Varolii was much broken down, and the extravasa-

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tion extended into the right crus cerebelli, and had broken into the fourth ventricle. Much bloody fluid existed in the lateral ventricles, whose septum was broken down. The patient, a man, aged 49, was admitted into St. George's Hospital quite sensible and coherent in conversation. He had staggered on walking home after having drank two glasses of beer, and complained of being unable to see properly. When examined, there was loss of power to move the legs, the skin of which was without sensation, and there was incontinence of urine. He vomited a quantity of stuff smelling strongly of beer. He became comatose, and died on the day after admission.

EXTRAVASATION OF BLOOD INTO THE CENTRAL PART OF THE PONS VAROLII, EXTENDING INTO BOTH CRUSA CEREBELLI.

The patient was a drunken woman, aged 33, who for some time had suffered from headaches and giddiness. She had been "hemiplegic" on the left side since a fit which occurred two weeks previously, and had never regained consciousness. When admitted, the speech was inarticulate, and there was no sensation or power of moving the muscles on the left side of the body. Difficulty in breathing and swallowing came on; she became comatose, and died three days after admission. The heart, lungs, kidneys, etc., were found healthy after death.

PARAPLEGIA FROM SOFTENING OF THE SPINAL CORD ASSOCIATED WITH A LARGE CALCULUS IN THE BLADDER; PROBABLY, IN THE ONSET, AN INSTANCE OF "REFLEX PARAPLEGIA."

The case was that of a gentleman, about 58 years old, who had in early life suffered much from gravel and irritation of the kidneys. Twelve years before death he had begun to pass blood in the urine after a slight fall or slip down a bank. Subsequently, pus was passed by the bladder, with and without blood, in large quantities. About five years after the first symptoms, difficulty in walking and numbness of the legs came on, and gradually almost complete loss of power in the legs was established. A calculus was detected in the bladder by Mr. Adams, of Harrington-square, but as it was surmised that disease of the kidneys existed also, any operation with a view to remove the calculus was not considered advisable. Eventually, and a few days before death, loss of sensibility of the skin of the legs and face was experienced, and hyperæsthesia of the arms came on. The patient died, owing to accumulation of mucus in the bronchial tubes. After death, the bladder, containing the calculus, weighing 2¾ oz. and 40 grains, was found very inflamed, and a large abscess in the left kidney was met with; there were also indications in the left ureter that a calculus had at some time been impacted therein. There was extensive softening of the lower part of the *lumbar* region of the spinal cord, and also of the lower part of the *cervical* region. Dr. Ogle thought that, in connexion with this case, the question as to the interference which the existence of paraplegia might be supposed to produce with operative measures for the relief of stone in the bladder, might fairly be raised, and it was mainly with a view to that general question that he had exhibited the specimen. In reference to this subject Dr. Brown Sequard had told Dr. Ogle that, judging from his experiments upon certain of the lower animals, he should consider the presence of paraplegia rather an advantage than detrimental, in case that lithotomy had to be performed.

The PRESIDENT said that if, in a case of paraplegia with stone in the bladder, there was kidney disease, he should not operate; but that the fact that there was paraplegia would not deter him.

RUPTURE OF THE HEART.

This was presented to the Society for Mr. Roper, of Shoreditch; and the principal point of interest was, how far the Surgeon and the public were justified in attributing the patient's death to starvation. The latter was a woman, about 60 years of age, and was endeavouring to subsist on a few pence a-week in a lodging containing no fire, and having no clothes to cover her. She died suddenly, and there was found a laceration through the left ventricle. The coronary artery was diseased, and the muscular tissue was pale and soft. There were sufficient morbid conditions found in the organ to account for the rupture; but at the same time Dr. Wilks thought that an impoverished condition of the blood might have aggravated the tendency to muscular degeneration, and that the remarks of Mr. Roper before the coroner were quite reasonable—"That the deceased died immediately from rupture of the heart; but that privations, want of nourishment, proper clothing, and of warmth would undoubtedly have accelerated the rupture of the heart. There was no trace of fat in the interior of the body."

LARDACEOUS DISEASE OF THE VISCERA.

The liver, spleen, and kidneys of a young man were shown who had long suffered from this form of disease. The point of interest was in the fact that, on the surface of the liver, where it was adherent to the diaphragm, there was a layer of pure lardaceous material almost an inch thick. In this no trace of hepatic structure was visible; and it thus seemed as if a free deposition of the adventitious material had taken place on the outside of the organ.

Mr. SPENCER WELLS exhibited three specimens of

CANCER OF THE OVARIES.

In the first case both ovaries were affected. The patient was married, 44 years old, childless, and the disease had been of three years' duration, but had only caused much inconvenience during the last year of life. Six months before her death ten pints of fluid were removed by tapping. Mr. Wells only saw her six weeks before her death, and made the diagnosis of two ovarian tumours surrounded by ascitic fluid, and from the cadaverous aspect suspected malignancy. Fifteen pints of ascitic fluid were removed by tapping, and hard masses were then felt more distinctly in the abdomen and pelvis. She lived about five weeks after the tapping, and died exhausted. The tumours were distinctly cancerous, and the peritoneum was studded with cancerous tubercles. The second patient was also childless, though she had been married twice; she was 59 years old. Only the left ovary was affected. The tumour had been surrounded by ascitic fluid, which had been removed several times by tapping. The disease was only about twelve months from its commencement to its termination. After death the tumour was found to be inseparable from the bladder, uterus, and rectum. Portions of it were distinctly cancerous. The third was a case of encephaloid in a girl between 13 and 14 years old. The growth had been extremely rapid, only having been noticed about two months before death. Microscopic sections, prepared by Dr. Wilson Fox, were exhibited to show that the stroma of the right ovary was infiltrated with cancer. But whether the mass of soft cancer which had filled the pelvis had originated in the ovary or had extended to it, Mr. Wells was doubtful. The question of ovariotomy had been considered in all these cases, but had been negatived by the visible cachexia indicative of malignant disease.

Mr. SPENCER WELLS also exhibited a specimen of

TUBERCLE OF THE OVARY.

The deposit was observed beneath the peritoneal coat of a large cyst which Mr. Wells had removed from a single lady, 23 years of age, who died five days after the operation from diffuse peritonitis of a low form, probably tubercular.

Dr. WILSON FOX described this cyst as single, with the exception of a few scattered thin-walled cysts on the inner surface. On the outer surface, beneath the peritoneal coat, and firmly blended with the surrounding stroma of the cyst-wall, there were numerous nodules about the size of peppercorns, of a cartilaginous hardness, appearing on section glistening and semi-transparent at the circumference, and opaque and cheesy at the centre, which was slightly softened. The nodules themselves were without any trace of vessels, but the tissue around each nodule was very highly injected, and in the injected area there were delicate false membranes studded with the finest granulations of miliary tubercle. False membranes were also seen on other parts of the tumour containing fine granulations of miliary tubercle; and similar grey granulations, not larger than a pin-point or a poppy-seed, were seen on other parts of the outer wall of the cyst. Under the microscope, the outer part of the larger masses and small grey granulations were seen to have the same structure, and to consist of slightly elongated cells containing large, round, very clear, highly-refracting nuclei, each nucleus containing a nucleolus. The nuclei were in some parts free. In some parts of the field, cells with two nuclei could be seen; these were embedded in a clear, separating, finely striated, and very firm intercellular substance. The cells averaged $\frac{1}{1\,0\,0\,0}$th in diameter, the nuclei $\frac{1}{4\,0\,0\,0}$th. The cheesy yellow matter in the centre of the nodules consisted of oil globules, granular *débris*, and shrivelled cells. From these characters Dr. Fox had no doubt that the nodules and grey granulations were of tubercular nature.

In reply to Dr. BRISTOWE, Mr. WELLS said that no post-mortem examination had been allowed, so that he could give no information as to the state of other organs; but the lungs had been examined during life, and were believed to be healthy.

Mr. Spencer Wells then exhibited the uterus, left ovary, and pedicle left after removal of a tumour of the right ovary, the patient having died three days after

RETURN OF THE LIGATURE INTO THE ABDOMEN.

About two pints of dark red serum had been effused into the peritoneal cavity, which contained neither blood nor ovarian fluid. The recent lymph was confined entirely to the lower and back part of the abdomen and pelvis, the peritonitis radiating from the pedicle, not from the wound in the abdominal wall, which was completely united, nor from a surface where the cyst had been adherent. There was no such attempt to capsulate the pedicle and ligature as there probably would have been had the patient been in better health. She was a married, childless woman, 50 years of age. Mr. Wells thought her chances of recovery would have been greater had it been possible to keep the end of the pedicle outside the abdomen, and he stated that the trials which he had made of returning the pedicle seemed to teach that in young or healthy subjects where circumscribed peritonitis and effusion of plastic lymph might be expected the practice was a good one; but in debilitated or cachectic patients, in whom diffuse peritonitis and effusion of serum, or of aplastic lymph might be feared, it would be safer (when the clamp could not be used) to leave the ends of the ligatures hanging out through the wound, and thus secure an opening for the escape of effused serum, and for the ligature itself with the tissues enclosed in it after their separation.

THE PAST QUARTER.

The following extracts from the Registrar-General's Quarterly Return of Births, Deaths, and Marriages are of more than ordinary interest:—

"The Return exhibits important, and even striking, results in its threefold variety of subject. Rising with an increasing population the number of marriages was greater than it had ever been before in any quarter. The marriage-rate (*i.e.*, proportion of persons married to population) was high, though in some previous instances it had been higher. The registration of births may be described as 'extraordinary,' for not only were the births more numerous than they had been at any previous period, but relatively to population they were also numerous beyond example within the last ten years. And in respect to the deaths, a remarkably high rate of mortality attests the severity with which the inclemency of the winter pressed on the public health.

"DEATHS; AND THE STATE OF THE PUBLIC HEALTH.

"The deaths greatly exceed the average number. Seldom has a winter been more fatal; for 143,030 deaths, 1572 a day, were registered in ninety-one days, including the additional day of leap year, for which due correction is made. The mortality was at the rate of 2·773 per cent.; whereas the average of the season in the preceding ten years was 2·490 per cent.; thus the rate was nearly 28 instead of 25 in 1000.

"14,698 persons died in excess of the average number.

"Since 1842 it is only in the two winters (1847-48) after the potato failure, and in the winter of the Crimean war (1855), that the country has experienced any higher rates of mortality. The winter death-rate per 1000 was 2·850 and 2·794 in the former years, 2·910 in 1855, and 2·773 in 1864.

"In unhealthy places, and in England formerly, when the land was undrained, and when zymotic matter soiled the air and waters more abundantly than it does in these days, the mortality was highest in the hot months of the year; but in the last quarter of a century the summer diseases have to some extent subsided, and left the mortality highest in winter, when the cold weather, in some proportion to its intensity, cuts off the weakly and the aged.

"Upon dividing the population into two portions, the one living in the districts comprising the chief towns is found to have experienced the highest rate of mortality, or 2·974 per cent., while the mortality was at the rate of 2·508 in the small towns and in the country districts. The town rate was ·296, the country rate ·228, above their respective averages; thus the increase of the rate was greater in the town than in the country districts.

"London suffered to an extraordinary extent, and is accountable for a large share of the increase. The average annual rate of the winter quarter in London is 2·577 per cent., but in the last winter quarter the rate becomes 3·088, or ·511 above the average. The funerals increased in the proportion of five to six.

"The annexed table shows the rate of mortality during the winter quarters in each division. It will be observed that the mortality of Lancashire and Cheshire is slightly above that of London, but is not so much above its average as the mortality of London.

"*Average Annual Rate of Mortality in the Eleven Divisions of England in the Ten Years* 1851-60, *and in the Winter Quarter of* 1864.

Divisions.	Average annual rate of mortality per 1000 in 10 years, 1851-60.	Annual rate of mortality per 1000 in the winter quarter 1864.
1. London	23·63	30·88
2. South Eastern Counties	19·55	24·18
3. South Midland Counties	20·44	26·53
4. Eastern Counties	20·58	24·51
5. South Western Counties	20·01	25·97
6. West Midland Counties	22·35	27·57
7. North Midland Counties	21·10	25·84
8. North Western Counties	25·51	30·97
9. Yorkshire	23·09	28·31
10. Northern Counties	21·99	25·18
11. Monmouthshire and Wales	21·28	26·28

"When the thermometer falls to the freezing point of water, the mortality is raised all over the country; and the population of London is excessively sensitive to cold; thus the corrected average deaths for the second week of January are 1550, but the actual number of registered deaths this year was 2427. The mean temperature of the preceding week, instead of 37°·8, had fallen to 26°·7; and the temperature of one chill night (Thursday, January 7) had descended to 14°·3, or to 17°·7 below the freezing point of Fahrenheit; and 877 lives were extinguished by 'the cold wave of the atmosphere.'

"The excess of the rate of mortality per cent. during the last winter quarter was ·228 in the country districts and small towns, ·284 in the large town districts, exclusive of London, and ·511 in London, above the average of the quarter.

"Fire is a necessary of life in this climate; and a warm hearth mitigates the severity of winter. Fire is as much required by the poor as by the rich; and a tax on coals, like a tax on salt, presses with undue severity on people of small means. Coal at the pit's mouth costs about 5s. a ton; and anything that facilitates its carriage and distribution in cities, by the abolition of duties and monopolies, or by laying down railways, if it lead to a diminution of cost, will preserve many lives that come to an untimely end in such severe weather as has reigned during the last winter months.

"The rate of mortality in the South Eastern Division was 18 per cent. higher than it was in the two preceding March quarters; in the Northern Division, where the coal is cheap, the rise in the mortality was only 4 per cent.

"Inflammation or congestion of the lungs and the air tubes are the common results of severe cold; and they carried off the aged in great numbers. Scarlatina, measles, small-pox, were prevalent and fatal; diphtheria and whooping-cough are also mentioned among the prevalent diseases of some districts. Where these diseases were epidemic the mortality of districts was high, as the inhabitants suffered from the zymotic poison and from cold.

"Mr. Rawlinson, in his intelligent report, justly says:—'The high death-rate prevailing in Lancashire towns has its main cause in the foul cottage cesspit. An inspection of any town in the district will show this.'(a) The works on which the people are employed at the instance of the local authorities are nearly all of a hygienic character, and cannot fail to be salutary through all future times."

(a) Report of Robert Rawlinson, Esq., C.E., to the President of the Poor Law Board, April, 1864.

EXTRAORDINARY LONGEVITY.—The obituary of the *Times* of the 17th inst. contained some rare instances of prolonged life in the case of six persons, four gentlemen and two ladies, whose united ages amounted to 537 years, giving on an average 90 years and 6 months to each. The ladies, as usual, took the precedence, the eldest having reached the great age of 103 years, and the youngest 83. Of the gentlemen, the eldest was 90, and the youngest 85 years of age.

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MEDICAL NEWS.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH. — DOUBLE QUALIFICATION. — The following Gentlemen passed their first Professional Examinations during the May sittings of the Examiners :—

William H. Arrowsmith, Dublin; William T. Crabbe, Kirriemuir; Henry Allyne Nicholson, Penrith; Arthur Strickland, Tarbolton, Leeds; Alexander Clarke, Campsie; Thorburn Paterson, Bonnyrigg; Alexander S. Esson, Edinburgh; Frank Kennedy Dickson, Edinburgh; James Milward, Bristol, and George W. Robertson Hay, Roxburghshire.

The following Gentlemen passed their Final Examinations and were admitted L.R.C.P. Edinburgh, and L.R.C.S. Edinburgh :—

Theobald Andrew Purcell, Dublin; Evan Jenkins, Llandyssul, Cardigan; John Alexander Campbell, Co. Londonderry; Stephen Coull Mackenzie, Calcutta; John Thomson, Fifeshire; Matthew Mulvany, Co. Meath; John Francis Madigan, Co. Limerick; James Callaghan, Cork; William Sinclair, Stirling; George Macdonald, Perthshire; Arthur William Shedden, Madras; Smith Houston Davson, Berbice, British Guiana; Richard Cranke, Lancashire; Francis M'Bean Stewart, Dundee; John Allen, Malta, and Patrick O'Neill, Co. Kildare.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary Examinations for the Diploma, were admitted Members of the College, at a meeting of the Court of Examiners, on the 12th inst.:—

Joseph Ball, York; John Tasker Evans, Hertford; Edward Ingram Bostock, Horsham, Sussex; and Charles John Grellet, Lloyd-square, Students of St. Bartholomew's Hospital; Henry William Alexander Mackinnon, Somerset-street; Thomas Claye Shawe, L.S.A., Stockport; and William Watmough, L.S.A., Pocklington, Yorkshire, of King's College; Timothy Tudge, Yeovil; John Ablewhite Smith, Louth, Lincolnshire; and Charles Wightwick Pitt, Malmesbury, of the Middlesex Hospital; Robert Edward Gwen, Beaumaris, and Joseph Johnson, Hogsthorpe, Lincolnshire, of Guy's Hospital; Griffith Griffiths, Alltwen, Glamorgans., of University College; Philip Cowen, Kennington, of St. Thomas's Hospital; Thomas Edward Blick, Islip, Oxon, of St. Mary's Hospital; William Westbrooke Squires, Liverpool; Charles Perks, L.R.C.P. and L.S.A., Lichfield; James McCully, Belfast; and Joseph Wilkinson Warburton, Liverpool.

The following were admitted Members on the 13th inst. :—

John Talfourd Jones, M.B. Lond. and L.S.A., Brecon, South Wales; Thomas Griffith Evans, L.S.A., Lawrence-lane; and Francis Rawle, L.S.A., Lambeth, Students of University College: George Edward Shuttleworth, Russell-square, Fitzroy-square, and John Richard Peel, London, of King's College; William Liddard, Mildmay-road, Islington, of the Middlesex Hospital; Frederick Mansor, Chatham, of Guy's Hospital; Alfred Orlando Jones, Barnsbury, of St. Thomas's Hospital; Thomas Nimmo, Kirkaldy, Fifeshire; Henry Wade Battersby, Dublin; and Henry Commins, Bray, County Wicklow.

The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 17th inst., and when eligible will be admitted to the Pass Examination :—

C. J. S. Digges, George Massy, George Stokes, and George Percy, Students of the Dublin School; William Smith, R. C. Goddard, and Herbert Wood, of the Manchester School; George Cooper and H. W. Pullan, of the Leeds School; G. B. Millett and Robert Robertson, of St. Mary's Hospital; F. J. Grose and T. C. Murphy, of University College; Frederick Reynolds and H. H. Brayo, of Guy's Hospital; J. H. Tarleton, of St. Bartholomew's Hospital; and W. H. Ansell, of Charing-cross Hospital.

The following passed on the 19th inst. :—

Joseph Burne, R. H. Williams, J. N. Stone, R. C. Parkinson, Edward Borsaugh, and F. E. Dickinson, Students of the Dublin School; John Brady, David Wilson, and William Burrows, of Belfast; F. T. Prince, O. G. Langdon, and W. A. Daniel, of St. Bartholomew's Hospital; J. E. Tilton, Bristol; W. R. G. Hinds, Galway; John Cremonini, of Birmingham; J. H. Rumsey, of St. George's Hospital; R. T. le Sueur, of Edinburgh; and Richard Talbot, of Guy's Hospital.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—Mr. George Haliburton Hume passed his first Professional Examinations during the May sittings of the examiners; and the following gentlemen passed their Final Examinations and were admitted licentiates of the College :—

Henry Cook, Newport, Monmouth; William John Wilson, Co. Armagh; Parker Arthur Smith, Canada; James Hill, Northumberland; John Wyber, Glasgow; John Winspeare McCarty, Cork; James George Lyon, Forfar; James Smith, Dumfries; John Knox, Tyrone; Thomas Raleigh Phayre, Co. Limerick; Alexander Donald Neil Munro, Edinburgh; George Augustus Christie, New Brunswick; Angus Macdonald, Aberdeen; Adam Orr, Clonmel; James Johnstone Hyslop Hope, Lanarkshire; Archibald Barr Tolford, Lanarkshire; William Dobie, Langholm; Robert Skimming, Wigtown; Thomas Morris, Fifeshire; James Provan, Haddingtonshire.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, May 12, 1864 :—

John Henry Ashton, 10, Upper Barnsbury-street; William Coleridge Kiernander, 2, Brunswick-square; William Norris Marshall, Upper Northgate-street, Chester; William Jones, Trewalter, Brecon; Robert Chapman Gibson, Fyfield, Ongar, Essex.

The following gentlemen, also on the same day, passed their First Examination :—

Henry Hargreaves Birtwell, St. Thomas's Hospital; Edward Monroe Spooner, London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BARKLY, WILLIAM, L.D.S.R.C.S. Eng., has been appointed Assistant-Dental Surgeon to the National Dental Hospital, Great Portland-st., W.

BEVISS, CHARLES, M.D. St. And., has been appointed Resident Medical Officer to the Leeds Fever Hospital.

CAIRNS, THOMAS, M.D. Edin., has been elected one of the Medical Officers of the Royal Dispensary and Vaccine Institution, Edinburgh.

COWIE, JOHN, M.D. St. And., has been appointed Admiralty Surgeon and Agent at Lerwick.

HAWKES, J., M.D., has been appointed Assistant Medical Officer to the Female Department of the Middlesex County Lunatic Asylum at Hanwell.

LINDSAY, JAMES M., M.D. St. And., has been appointed Resident Medical Superintendent of the Female Department of the Middlesex County Lunatic Asylum at Hanwell.

MURRAY, JOHN, L.F.P.S. Glasg., has been appointed Surgeon to Cardowan and Heathfield Fire-Clay Works.

SHEEN, ALFRED, M.D. St. And., has been elected House-Surgeon and Secretary to the Glamorganshire and Monmouthshire Infirmary and Dispensary, Cardiff.

DEATHS.

ARMSTRONG, WILLIAM, L.R.C.S. Edin., at Wark, Hexham, Northumberland, on March 3.

BROWNE, ROBERT, L.R.C.S.I., Surgeon-Major H.M. 25th Regt., 2nd Battalion, at Barranderry House, Kiltigan, Baltinglass, Ireland, on May 9.

EMANUEL, LEONARD, M.D. St. And., Assistant-Surgeon H.M. Bengal Army, at 21, Inverness-road, Bayswater, aged 29.

JOHNS, ROBERT, L.K.Q.C.P.I., at Westland-row, Merrion-square, Dublin, recently, aged 49.

LEWER, JOHN RICHARD, M.R.C.S. Eng., at Whampoa, China, March 7, aged 43.

MEWBURN, J., M.D., at Danby House, Stamford, Canada West, on April 12, formerly of Whitby, Yorks.

RIACH, JOHN, M.D., formerly Surgeon H.M. 67th Foot, at Allanbank, near Perth, N.B., on May 14, aged 73.

TRIMBLE, JOHN, M.D. Edin., at Castlebellingham, Co. Louth, on May 6.

THE ROYAL COLLEGE OF PHYSICIANS AND MISS GARRETT.—The legal advisers of the College of Physicians—the Attorney-General and Mr. Cleasby—have advised the College that they have no legal power to confer on female candidates their license. They have, therefore, "courteously declined" Miss Garrett's application to be admitted for examination.

SCHOOL OF PHYSIC IN IRELAND.—At a meeting held on Saturday, the 14th inst., in the Provost's house, Trinity College, Dr. Aquilla Smith was unanimously elected King's Professor of Materia Medica in the room of the late Dr. Osborne. The electors were the Rev. the Provost of Trinity College; the Regius Professor of Physic in the University, Dr. Stokes; and three electors chosen by the King and Queen's College of Physicians in Ireland.

INTERESTING COINCIDENCE.—The *Times* informs us that "the Ladies' National Convocation of New York" delayed the adjournment of the meeting till the members had been photographed; and one of our Medical contemporaries tells us that during the last days of the late prorogued session of the Medical Council a photographer attended, and took the portraits of the members.

A UNIVERSITY FOR WALES.—The committee formed with the view of promoting the establishment of a University for Wales have issued a circular in further explanation of the object in view and of the plan proposed to be followed. The committee already consists of a number of peers, members of the House of Commons, and other gentlemen of property and official position in the principality. The model proposed to be followed is that of the London University and of the Queen's Colleges in Ireland, and the institution will be purely non-sectarian, all theological teaching being entirely eschewed. A national fund will be raised, and Parliament is to be appealed to for assistance, and there is every prospect that an arrangement will be made to merge the Lampeter College into the proposed University.

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THE GREAT NORTHERN HOSPITAL.—We are glad to observe that the Corporation of London have made a grant of fifty guineas to this Hospital, which has been lately removed to the Caledonian-road.

MEDICAL CHARITIES.—The Profession will be glad to see the following extraordinary illustrations of princely munificence on the part of Mr. G. Wheelhouse, formerly of Deptford, who has made bequests to the amount of £13,000, and in doing so has not forgotten the charities of our Profession, which benefit to the amount of £5500, distributed in the following manner, viz.:—To the Westminster Hospital, £500; the Royal Free Hospital, £500; the Middlesex Hospital, £500; the Charing-cross Hospital, £500; the North London Hospital, £500; the Great Northern Hospital, £300; St. Mary's Hospital, £500; the Metropolitan Free Hospital, £500; the Seaman's Hospital, £500; the Royal Hospital for Incurables, £500; the Royal Infirmary for Children and Women, £500; and to the Scarborough Dispensary, to be expended in annual sums of £10 until the amount is exhausted, £200.

THE PHARMACEUTICAL SOCIETY.—On Tuesday evening the annual *soirée* of this Society was held at 17, Bloomsbury-square. A number of the newest inventions were exhibited, including the photo-sculptures, by Claudet, resulting from a number of photographs taken of individuals and then reduced to plaster, producing the most life-like reality; the electric signal, which intimates when the signal-light is out, and indicating caution to the signalman; the application of electricity to the distance-signals in place of mechanical power, thus making the semaphore subject to electricity, securing rapidity and accuracy without the clumsiness of mechanical operation. Specimens of iodine, produced from sea-weed, by the British Sea-weed Company, were also exhibited, and attracted marked attention. There were subsequent experiments on gun-cotton, optical subjects, etc., accompanied by brief explanatory lectures.

CAUTION TO EDITORS.—Acting Assistant-Surgeon B. B. Miles, U.S.A., is accused by a correspondent of the *American Medical Times* of something like plagiarism. He is said to have passed off an article on Erysipelas, by the late Dr. Todd, as his own; and now to have paid Professor Longmore a similar compliment by adopting much of his article on Gun-shot Fractures of the Knee in Holmes's Surgery.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.—The twelfth anniversary of this important charity was celebrated on Saturday evening by a public dinner, in Willis's-rooms, St. James's, at which Sir Charles Locock, M.D., presided. The Chairman was supported by Archdeacon Robinson, Master of the Temple, the Rev. Dr. Mortimer, Sir John Fisher, Sir Walter Stirling, Mr. Du Pré, M.P., Mr. G. Lyall, M.P., Mr. Angerstein, M.P., Colonel Palmer, Mr. Fergusson, Dr. Babington, Dr. Randall, Dr. Billing, Dr. Ray, Dr. Shaw, etc. Grace was said by the Rev. Dr. Thornton. In giving the health of "The Queen," the Chairman expressed a hope that her Majesty, returning from Scotland with re-invigorated health, would soon be enabled to resume the personal discharge of those public duties to which her loving people so anxiously look forward. In proposing "The Health of the Prince and Princess of Wales," Sir Charles mentioned the gratifying fact that the infant Duke of Cornwall "is a very healthy and thriving child, and gives every promise of turning out a robust, manly prince." "The Army, the Navy, and the Volunteers" was proposed by Sir Walter Stirling, and acknowledged by Colonel Walker. "The Church" was given by Mr. William Gilpin, and eloquently responded to by the Ven. Master of the Temple. The Chairman prefaced the toast of the evening by briefly stating the objects and urging the claims of the Royal Medical Benevolent College. It is founded by the Medical Profession as an asylum for such of their brethren as from ill-health, want of Professional success, or other adverse influences, have sunk into poverty, and for the widows of Medical men in reduced circumstances. The College is situated at Epsom, and provides three furnished apartments to each of its pensioners, of whom there are 100, with such additional assistance and accommodation as the funds permit. There is also a school, in which a liberal education is given to 200 boys, the sons of duly qualified Medical men; 40 foundation scholars being clothed, boarded, and educated entirely at the expense of the institution. Occasional assistance and annuities are also provided for Medical men and their families in distressed circumstances. A chapel for divine service according to the ritual of the Church of England also forms part of the foundation. The treasurer congratulated those present on the prosperity of the institution, and announced a subscription list of upwards of £1100. Mr. Du Pré, M.P., proposed the health of the Chairman, which was received with much cordiality.

THE LATE MR. WILLIAM HORSELL.—In our last number we mentioned that this gentleman, who had left England last summer for Lagos and Abeokuta, accompanied by Mr. and Miss Bischopp, to aid, by their personal efforts, and at their own cost, in the cause of civilisation in Africa, had been delivering a lecture in Anamaboe. It is now our painful duty to announce the death of this gentleman, who died on board the schooner *Just*, outside the bar of Lagos, on Thursday, December 24 last. Having known him during the past two years as an ardent inquirer into the wants of the uncivilised African, and the mode of treatment required for bringing him within the pale of civilisation, we feel deeply grieved at his thus sudden death, before even arriving at his proposed field of labour. Mr. Horsell seems to have died of fever. He felt confident when here that, as a vegetarian, and a total abstinence man, he should not be subject to that African disease. He would not credit that the system requires good support against that malady. We understand that Miss Bischopp, not at all discouraged by this sad event, was about to leave Lagos for Abeokuta at the time the last mail was quitting that part of the coast.—*African Times*.

UNIVERSITY COLLEGE, LONDON.—The distribution of Prizes in the Medical Faculty took place at the College on Monday, the 9th inst., Lord Wodehouse presiding. The most interesting portion of the Dean's report of the proceedings of the Faculty during the year was that in which he referred to an extension of the means afforded to students for clinical study in the Hospital of the College. Since the foundation of the Medical School of the College, he stated, every opportunity had been taken of establishing practical courses of study, in which the learner himself might take an active part in the work. Thus, a course of practical chemistry, involving work in the laboratory, had been established by the late Professor of Chemistry, Mr. Graham, now Master of the Mint, and had been continued by Professor Williamson. So, also, a physiological laboratory had been opened for practical study of physiology, structural anatomy, and physiological chemistry, and a class for practical instruction in these subjects had been carried on by Dr. Harley since 1856. Above all, in the Hospital, attention had all along been paid to means for making the students practically familiar with the work of their Profession. Instruction in operative Surgery on the dead body was given by Mr. Marshall, by whom, also, instruction was given in the art of bandaging. Over and above the clinical instruction afforded by the Physicians of the Hospital, there had long been instruction in Clinical Surgery and Clinical Medicine by special Professors of these subjects. During the past year, however, Dr. Russell Reynolds, the Professor of Clinical Medicine, had instituted a new course of clinical teaching, which had produced good results. A certain number of the students had gone through this special course, the object of which was to bring each individual in direct contact with patients, so that he should, for himself, hear their complaints, examine them, make his own diagnosis, and suggest the treatment which he thought advisable. This was done by requiring from each student a written report, in each case according to a particular form, and by making that report the subject of subsequent examinations and comment. Altogether, the plan was so promising of good that the Council had conferred special prizes and certificates on the students recommended by Dr. Reynolds for the merit of their clinical reports. *Winter Term*, 1863-64.—Anatomy and Physiology (Professor Sharpey, M.D.).—Gold medal, J. Pearson Irvine, of Galgate, Lancaster; first silver medal, James S. Cluff, of Kildress, Ireland; second silver medal, Thomas Bailey, of London. Anatomy (Professor Ellis).—Senior Class: Gold medal, George O. Spencer, of Notting-hill; first silver medal, Frederick B. Nunnerley, of Burton-on-Trent; second silver medal, Henry Clothier, of Haselmere, Surrey. Junior Class: Silver medal, G. H. Maasdorp, of Cape of Good Hope. Chemistry (Professor Williamson, F.R.S.)—Gold medal, James S. Cluff, of Kildress, Ireland; first silver medal, Russell Forbes Carpenter, of London; second silver medal, Charles Graham, of Berwick-on-Tweed. Practical Physiology and Histology (Professor Harley, M.D.).—Silver medal, William Andrew Stuart, of Barbadoes. Comparative Anatomy (Professor Grant, M.D.).—Gold medal, James S. Cluff, of Kildress, Ireland. Medicine (Professor Jenner, M.D.).—

Gold medal, William Snow, of Barnstaple; first silver medal, Bryan Holme Allen, of London; second silver medal, Marcus Beck, of Isleworth. Surgery (Professor Erichsen).—Gold medal, Charles Bradley, of Nottingham; first silver medal, George Grewcock, of Folkinham; second silver medal, William Spooner, of Eling, Southampton. Fellowes' Clinical Medals.—Gold medal, Bryan Holme Allen, of London; silver medal Alexander Bruce, of London. Special Class of Clinical Medicines.—First prize (microscope), William Snow, of Barnstaple; second prize (book), John M. Whitwell, of Kendal; third prize (book), Benjamin Holme Allen, of London.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—DISTRIBUTION OF PRIZES.—On Thursday, the 12th inst., the prizes in the several classes of the Westminster Hospital Medical School were distributed to the successful competitors by the Very Rev. the Dean of Westminster, who was supported on the occasion by the Rev. Canon Nepeau, Mr. Anderdon, one of the Vice-Presidents of the Hospital, Mr. Bedford, Mr. Furnivall, and the Medical Staff and Lecturers, besides numerous friends of the pupils. Mr. Power, the Dean of the School, opened the proceedings by reading his annual report of the Medical School, in which he gave a most favourable account of its condition, and of the diligence and conduct of the students, and particularly adverted to the success with which all the pupils had passed their several examinations during the past season. The following prizes were then distributed by the Very Rev. the Dean of Westminster:—*Summer Session*, 1863.—Practical Chemistry: Mr. G. P. Bate, prize, Surgical instruments. Materia Medica: Mr. G. P. Bate, prize, Surgical instruments; Mr. R. Bugden, certificate. Botany: Mr. R. Bugden, certificate. Forensic Medicine: Mr. G. E. L. Pearse, certificate. Midwifery: Mr. G. P. Bate, prize, Surgical instruments; Mr. G. E. L. Pearse, certificate; Mr. Ralph Burnham, certificate. *Winter Session*, 1863-64.—Anatomy: Mr. G. P. Bate, prize, Surgical instruments; Mr. R. Bugden, certificate; Mr. Brooks, deserving of honourable mention; Mr. W. Moore, deserving of honourable mention. Chemistry: Mr. J. C. F. McDonald, prize, Scott's poems, Tennyson's poems; Mr. W. Moore, certificate; Mr. W. C. Watson, certificate. Physiology: Mr. G. P. Bate, prize, Surgical instruments; Mr. J. C. F. McDonald, certificate. Medicine: Mr. W. Yates and Mr. G. E. L. Pearse (equal), prize, Bible, ditto, Scott's poems. Surgery: Mr. Ralph Burnham, prize, Staunton's Shakespeare, Longfellow's poems; Mr. G. R. L. Pearse, certificate; Mr. C. St. Aubyn Hawken, honourable mention. Clinical Medicine: Mr. G. E. L. Pearse, certificate. Clinical Surgery: Mr. C. St. Aubyn Hawken, certificate. Dental Surgery: Mr. G. P. Bate, prize, dental instruments; Mr. Oakman, certificate. Chadwick prize: Mr. G. E. L. Pearse, Lowe's Ferns, Tennyson's poems, Surgical instruments. Prosector's prizes: Mr. C. St. Aubyn Hawken, Mr. Ralph Burnham. Dr. Basham made some remarks upon the Chadwick prize, which he said had been founded in perpetuity by a lady who had been a most munificent benefactor to the Westminster Hospital, in memory of her husband. He also spoke in the highest terms of the gentleman who had gained the prize this year (Mr. Pearse), who, he said, might be considered in all senses a Westminster student, since he was the son of an old Westminster Hospital pupil and had received his general education at the Westminster School, which preliminary education Dr. Basham thought had had considerable influence upon his subsequent success. Mr. Barnard Holt proposed a vote of thanks to the Dean of Westminster for his kindness in presiding on the occasion. The Dean, in returning thanks, said that it had given him great pleasure to preside, and that there were only two drawbacks to his efficiency on such an occasion, namely, that he did not profess either a knowledge of science or great readiness of speech. He had always taken great interest in education and in the rising generation, and it was, therefore, a sincere pleasure to him to see so many gentlemen making such satisfactory progress in their studies. He had lately been speaking respecting Hospitals to a distinguished man of letters, who had said that what struck him most with regard to modern Hospitals was that a Hospital for the sick and a school of instruction for students could be satisfactorily united, seeing the great difficulty there always was in uniting any two interests. He thought that the Medical Profession was the only one in which it was impossible to rise but by hard work and personal qualities, for in diplomacy, in the Law, and even in the Church, a man might be pushed on by interest and personal connection. Hippocrates had said, "Art is long, and life short." Life was still short, but art, and Medical art particularly, had become enormously extended by the discovery and addition of new sciences; and he, therefore, exhorted the student not to cease in his efforts to obtain knowledge when his actual days of studentship were passed. (Cheers.)

SEUTIN'S STARCH BANDAGE.—The Brussels *Presse Medicale* relates a notable example of the great utility of the starch bandage. The Director of the Brussels Mint, while visiting the Escurial at Madrid, met with a fall which dislocated his patella and tore a portion of the triceps. His presence being at the same time urgently required in Brussels, a Belgian Surgeon was sent to fetch him, and he having applied Seutin's starch bandage was enabled to bring home his patient by the ordinary means of conveyance, not the slightest pain or other ill effect being produced during so long a journey.

DR. BARCLAY ON THE LEICESTER INFIRMARY.—Now, I am very desirous of being amiable to-night, and when money is spent and paid, and a building finished, after having been deliberately ordered by a vote of the governors, it is perhaps an additional waste to throw after it vain regrets; but I must ask of you to remember that I have a right to do it in this instance, because I stood up alone—alone, I had not a seconder—to vote for an entirely new building. For the thousandth time people have now been convinced that the cheapest alteration of an old building is to pull it down. In this instance it was particularly desirable; for the retaining of one old wall, the front one, involved the adoption of the same style of building throughout. A very fine opportunity has now been lost for ever of showing what an Infirmary might be. We have served one good end, we fill one round of the ladder by which men mount to perfection. There are two or three lessons have been taught to Hospital builders by us that could have been taught by no other method than dearly-bought experience. Now to judge the Infirmary by the rules I have followed throughout. First, its adaptation to its end: large wards, lofty wards, cross ventilation and heating by radiation, (that is, by old-fashioned simple open fires), rooms for boards, for resident officers, for pupils, Surgery and Dispensary accommodation. These are the wants of an Infirmary, and so far as the wards themselves are concerned, I believe the new ones to be the finest in England or out of it. Miss Nightingale deserves the credit of having first impressed on builders the truth that the only real ventilation is to be obtained by cross ventilation by windows. "The wind goeth where it listeth," and we have only to give it free scope—free entrance, and free exit. Air will not be controlled, and enter by ventilating holes and escape by others, or go up ventilating shafts to order. Such an attempt was made in addition to the simple cross ventilation, and in the cold weather in January last, we had to have all the apertures pasted up with brown paper. I am concerned and constrained to state that the ventilation of wards re-constructed in the old part of the building is in some cases defective. In the new part the convalescent wards are constructed so as to render a proper circulation of air almost an impossibility; if the style had admitted of dormer windows in the roof the problem would have been solved on the spot. The faults of the Infirmary are almost all due to the style imposed upon us. It left no freedom of action. Windows have to be placed where they ought to come in regular course, not where they are wanted. There is a handsome centre entrance, hardly ever used by anybody, and to which a carriage cannot drive up. Patients—bad accidents and fever cases, have to be landed in the open street, usually among a crowd of idle spectators, and carried in before the public, whereby the feelings of both public and patients are shocked. Then the difference of levels involved by altering instead of rebuilding is a most serious fault. By the hoist, or lift, heavy articles, such as coals, are carried up one, two, three stories, but when they are wheeled along to the wards, we meet two, three, ten steps up or down. Everything has to be transhipped; and the ward, which from its proximity to the entrance, should have been the accident ward, was rejected unanimously by the Surgeons, from the dangerous descent of half a dozen steps. Further, the style adopted rendered impossible the proper construction of latrines and sculleries. We had, in most instances, to put them at the ends of the wards, but even there independent cross ventilation was not to be obtained. Without that, air will be sucked into the wards, and as I have proved with a candle, the air does so enter them—of course, contaminated and impure. They are going to build a very large new Infirmary at Leeds, and one of the Physicians came over here to see what he could learn from

our experience. He at once detected the fault I refer to, and has since informed me how well they hope to overcome the difficulty by adopting the flexible and useful Gothic style, by which they attain the end window—a great element in cheerfulness—and have the ward conveniences in little square or round turrets at the corners, entirely shut off from the ward, ventilated each for itself by cross windows, and thus entirely avoiding the draughts of impure air into the wards. I do not desire to say more, indeed, the less said about the outside appearance of the building the better; the new wards are of themselves very fine wards, and it is a very fine and noble institution. There is another fault that could hardly have been foreseen—a fault that would probably have been equally committed in an entirely new building, Gothic or other. The kitchens are on the sunk floor, directly under the main centre. The consequence is, that at cooking times the whole house is filled to the roof with the most objectionable odour of cooking, which penetrates through floors, through plaster, up the staircases, up the hoist, impregnating the whole centre, from the ground to the attic. I believe the remedy for this would be to have the kitchen, as it is to be in some of the large new London hotels, on the roof, and to let the dinners down instead of sending them up. The lessons taught, then, by the erection of this Infirmary are these:—Have every floor on the same level from end to end; adopt the Gothic style, which enables you to put windows and doors, big or little, just where they are wanted; trust entirely to Nature's ventilation by windows on both sides of the wards; put your kitchens either in a separate building, or on the roof; and above all, never attempt to alter an old building, but have it entirely new. —*Reprinted from the Leicester Advertiser.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Anxious Inquirer.—Become M.R.C.P. Lond.

The author of a paper on the Ferruginous Treatment of Syphilis has forgotten to send us the last page of his communication.

John—of St. Albans—Fair Play.—May I ask your constant readers (myself being one of the many) which parties ought to be prosecuted by the Medical Council—poor Jenkins, at Worship-street Court, who was mulcted in the penalty of £5, or the bare-faced H——s, whose filthy productions are a disgrace to the age we live in, and who withal assert that they are duly registered Practitioners? Such lies were far beyond poor Jenkins. Surely the Medical Council will interfere?

The Ashantee War.—On a former occasion we felt ourselves bound to remonstrate against the loss of English life entailed by the Oxford and Cambridge mission to Central Africa. We count ourselves second to none in appreciation of the motives which prompted that effort, but we maintained that more care should have been taken in selecting the field of labour, and that neither religion nor humanity permitted the condemnation of civilised English men and women to certain death by fever and starvation. Now, however, the Army authorities appear to have thrown all other African blunderers into the shade. The following extracts from letters which have been published in the *Times* give a pleasant picture of campaigning in the "bush." We do not profess to be well acquainted with the grounds of the Ashantee war—we dare say it is as defensible as the war in New Zealand or the bombardment of Kagosima—but we maintain that no victory over a savage horde is worth one tithe of the misery and suffering into which we are recklessly plunging the troops we have sentenced to the Gold Coast:—

"Cape Coast Castle, Africa, April 15.

"As it is, here I am, and must make the best of it, but unless you were on the spot and could see the result of a few weeks' residence in the bush—as shown in the unhappy persons who have just returned from it—you will hardly realise the amount of philosophy it requires to come to this sensible resolution. It simply means dying (as many have already), or, what is fifty times worse, coming out of it with a constitution ruined for ever. No less than six officers leave by this mail; two or three will never reach England, and the rest can never be what they were before. To call the tragedy now being enacted here a farce may appear an anomaly, but so it is, for a war it can hardly be when they have been in what they call 'the field' (the swamp would be a more appropriate term) for the last three months and never seen so much as a single Ashanteeman. The amount of human life and money being expended is something awful to contemplate, nor can the end—taking Commassie, the capital of Ashantee—ever be attained—no, not if ten times the number of troops now here were sent, and well the king knows this; hence his taking no notice, and his wise remark, 'that though the white men have sent plenty of guns into the bush, he knows the bush will prove stronger than the guns." One has only to be here a day or two to perfectly coincide with his sable Majesty. The rains have set in, and nothing can be done until November, when they will be over; but as a large quantity of stores have been collected at the camp—a collection of mud huts eighty miles in the interior—situated in a dense forest now under water—it will be necessary to keep a force there to protect them. The officers and two companies of my regiment have been selected for this service, and we start next week. If I ever return I shall be very much surprised and pleased, but I am free to confess I do not in the least anticipate it, for to send us at this season of the year into the bush with no shelter but what a mud hut affords, and no food but salt pork and biscuit, is well known to all acquainted with this climate to be simply death. I go, my friend, as I am bound to do, and will meet my fate as a gentleman should, but if I were offered this minute to choose between allowing my company to pop at me at 300 yards for half an hour, I should readily accept the alternative."

"God help us! Here we all are at last! I fancied I had seen some of the worst places there are, but imagination never pictured such a reality as this. We had been expected for two months, and yet no preparation was made for the reception of 200 men and 29 officers. Most of the men could go into the Castle; none of the officers could do so. Some of them are under tents with some of their men; the rest of us were quietly told to go and shift for ourselves, neither quarters nor lodging-money being given. The town and country are one mass of filth, and the stench is almost unendurable. We are allowed a gallon of water a day for washing, cooking, and drinking. When we landed, out of the nineteen officers we found here there were only three who were able to crawl about. Five go home—if they live long enough—by this mail; some went by last, and I don't know how many have died before they could be got off. This is from bush work during the dry season; and what are they going to do now? Why, keep two camps eighty miles up in the bush, in the middle of a swamp, where it will rain perpetually for six months. And what are they going to do it for? To eat up some stores which have been taken up and are in excess there, and which they do not wish to carry down again. And, to complete the whole matter, it is not certain that one Ashantee has been seen during the whole time that such humbug has been going on, which is now for nearly eighteen months, at a cost of upwards of £1000 a day to you at home."

Nelson's Injury at Calvi.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—At the siege of Calvi in 1794, as every one knows, Nelson lost one of his eyes from sand and small gravel driven into it from a shot which struck the ground near him. Some years ago I read in one of the Medical journals an account of this case, with (I think) extracts from the report to the Admiralty from the Medical officer who attended Nelson. Can any one of your readers refer me to the Medical journal in which this appeared? Perhaps it was in the *Medical Times and Gazette.* I regret I did not take a note of it at the time. I am, &c. W. M.

The Cheapest Disinfectant.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I ask permission to recommend to the readers of the *Medical Times and Gazette* a strong solution of iodine in methylated spirit, as a safe, cheap, and efficient disinfectant. Iodine is 8d. per ounce wholesale, and methylated spirit 4s. per gallon; therefore, supposing 4 oz. of iodine dissolved in a gallon of spirit cost 6s. 8d., allow a like sum for bottles, corks, and profit, and we ought to get for 6d. about 6 oz. of the tincture.

The advantages of iodine are (I believe it was first proposed as a disinfectant by Dr. Richardson) that it purifies solid surfaces as well as Condy's and Burnett's liquids; and that it is also volatile and acts on the air like chloride of lime, without its abominably nauseous odour.

In every house where there are sinks, closets, &c., internally, it is a good plan to disinfect them thoroughly from time to time in hot weather. Dust-bins should be treated with something to neutralise the emanations of the decaying vegetable rubbish thrown into them. When there is sickness in a house, and a *chaise percée* has to be used, it is very disgusting to have the contents taken without any precaution and allowed to waft a perfume all over the house. For all these purposes, for which a *liquid* disinfectant is convenient, I believe my Professional brethren will find the tincture of iodine the most handy and effectual.

I am, &c.

Mayfair, May 17. R. Druitt.

The Employment of Sponges in Hospitals.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In replying to my paper read before the Medico-Chirurgical Society at its last meeting, I am afraid I did not express myself very clearly with regard to the employment of sponges. What I meant to convey was this,—that sponges are never used in the Hospital; for all purposes of ablution pieces of flannel are employed, which are either burnt when the patient leaves the Hospital, or thoroughly cleansed in a solution of chloride of lime. It is of importance that this should be clearly understood. I am, &c.

Queen Charlotte's Hospital, May 14. George Brodie.

Poor-law Medical Reform Association.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I shall feel obliged for space to inform the Poor-law Medical officers that in "Knight's Official Advertiser" of the 16th inst. is the following:—"It is understood that the Committee (Select Committee on Poor Relief, England) have agreed to resolutions on several subjects on which they have taken evidence, viz., the distress in the metropolis in 1861, the continuance of the central authority, the power possessed by the Poor-law Board of issuing general orders, Medical relief, pauper education, religious rights of workhouse inmates, district auditors, power of Poor-law Board to dismiss officers, equalisation of rating, casual and houseless poor, classification in workhouses, and superannuation of paid officers. It now only remains for the committee to settle the terms of their report to the House. Mr. Villiers, the chairman of the committee, stated on the 5th instant, in reply to a question of Mr. Göschen, that he was led to believe that the report would be presented before long, and in time for legislation this session."

Since April 14 I have received the following subscriptions towards the funds of the Association:—E. Hall, Ulverstone, 10s.; C. Heaton, Leek, 3s. 6d.; R. Cooper, Leek, 3s 6d.; R. Turnock, Leek, 3s 6d.; T. Robinson, Cheadle, 5s.; E. C. Buckoll, Radford, 5s.; J. Westell, Cookham, 10s.; S. A. Plumb, Cookham, 10s.; T. Hewlett, Hendon, £1 1s.; H. Horsfall, Wakefield, 10s.; B. Kemp, Wakefield, 10s.; E. Walker, Wakefield, 10s.; T. Walker, Wakefield, 10s.; F. G. Wills, Chard, 5s.; R. Ransome, Cambridge, 10s.; R. F. Thompson, South Shields, 7s. 6d.; J. D. Hulme, Blaby, 5s.: R. W. P. Kerswill, St. Germains, 5s.; E. J. Worth, St. Germains, 5s.; J. Yeoman, Whitby, 10s.; and W. N. Clarkson, Whitby £5.

I am, &c.

12, Royal-terrace, Weymouth, May 17. Richard Griffin.

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Naval Assistant-Surgeons.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Dr. Parks' address to the Medical Council on the scarcity of competent candidates to fill up the ranks of the Army Medical Department is extremely interesting. I read a report of that address in your paper of the 14th instant, and as I have not heard any complaint made of a want of candidates for the navy, the question suggests itself to my mind—can it be possible that the navy fills up its ranks with the waifs and strays from the army competitive examinations?

The question is one of very great moment, as it concerns the efficiency of a very important branch of the public service, and from whatever quarter the candidates come, I am afraid I should be inclined to account for the anomaly by saying that the navy accepts a lower standard of qualification than the army.

The correctness of this conclusion may be denied by the naval authorities, and they may take credit for offering some greater inducements to account for their success. They may possibly allege that young Surgeons have an aversion to roomy quarters on shore, and prefer a hammock in the cock-pit of a line-of-battle ship, or at the best, a dark, unventilated room in the shape of a cabin, 6 feet by 4; or, that tired of the freedom of movement they have hitherto enjoyed, they prefer being shut up in a floating prison for the best part of their natural lives.

My reply would be—put them to the test—abolish your private board of examiners as the army and all other public bodies have done, and have one common examining board for the two services. Allow the successful candidates to choose the army or the navy, as the Woolwich cadets are allowed to select the engineers or the artillery, and you will then see which service is really popular with competent men.

In asking you to publish these few remarks I am not sanguine enough to expect that the navy board will readily adopt my suggestion. But the startling disclosures of incompetency made by Dr. Parks renders it desirable that measures should be adopted to prevent our sailors being given over, bound hand and foot, to the tender mercies of men who would treat a wounded artery by the amputation of a limb, and a wounded knee-joint by free incisions. I am, &c.

May 16. M.D., R.N.

Harris v. Twiss.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—We beg to call your attention to a brief *resumé* of the above case, which has occupied a large share of the attention, not only of the Profession, but of the public.

The plaintiff in the case was Dr. Pitt Harris, Medical officer of the Newport Dispensary, Nenagh Union, a gentleman who accepted the appointment with the knowledge that more than one of his predecessors had been driven from Newport by the most determined persecution; and one of his predecessors lately asserted publicly in the Petty Sessions Court that "he never would have resigned the appointments but for the persecution which he suffered from Mr. Twiss" (the defendant).

For the last eighteen months Mr. Twiss, a Poor-law Guardian and a member of the Committee of Management of the Newport Dispensary, possessing property to the amount of between three and four thousand a-year, put in force all those means of annoying Dr. Harris with the existence of which every Medical officer must be well acquainted; but finding that nothing could disturb the equanimity of the Doctor, and that he showed a quiet determination not to be driven out of Newport as his predecessors had been, Mr. Twiss at length proceeded to open slander, and at a public meeting of the Board of Guardians, held in Nenagh, where he knew that reporters from every newspaper in the county attended, accused the Medical officer of incapacity and neglect, in "failing to discover that the bones of a boy's arm were broken and refusing to set them, and that the father of the boy (his own bailiff) had to send for a bone setter, who set the bones."

The position and capacity of this bone setter may be imagined from his own evidence at a subsequent investigation before the Committee of Management. He said that "he was a bone setter since *before* he was born, and his generation before him."

Dr. Harris immediately directed his solicitor to take proceedings against Mr. Twiss for oral slander, and accordingly he was served with a writ, damages laid at £1000. Mr. Twiss filed three pleas in defence—viz., 1st, a denial of the words; 2nd, a denial of the words in the defamatory sense attributed to them; and 3rd, privilege.

The plaintiff was advised by counsel that he would get a verdict on the first two pleas, but would be defeated on the plea of privilege, and, nevertheless, resolved to go to a jury, hoping that, should a jury endorse this opinion as law, it might possibly lead to a revision of a law which is a violation of all justice, a law which gives a Guardian the "privilege" of blasting the Professional reputation of a Medical man without fear of punishment. The judge (as was predicted by the plaintiff's counsel) directed the jury to find a verdict for the plaintiff on the two first pleas, and for the defendant on the third, "privilege," with costs. Taking into consideration these facts, and that in reality the plaintiff, Dr. Harris, fearlessly fought the battle of the Profession against wealth and power, a Committee has been formed of Professional and non-professional gentlemen with the object of calling on his brother Practitioners not alone to indemnify him, but by doing so to protest publicly against a state of the law under which each in his turn may suffer.

Subscriptions will be received by the following gentlemen:—

George W. Bassett, Proprietor of the *Southern Chronicle*, Limerick, } Hon. Secs.
Thomas Glover, Francis-street, Limerick, }
Edward Hamilton, M.D., F.R.C.S.I., Surgeon of Stevens' Hospital, 123, Stephens'-green West, } Treasurer for Ireland.
George Woods, M.D., Surgeon of the General Hospital, Southport, } Treasurer for England.

COMMUNICATIONS have been received from—

Mr. Sylvester Richmond; Apothecaries' Hall; "Society for the Relief of Widows and Orphans of Medical Men;" C. K.; Western Medical and Surgical Society; Mr. George Brodie; Dr. F. Fitch; Fair Play; The University of Cambridge; Anxious Inquirer; Mr. R. Griffin; Royal Institution; Mr. Thomson; Dr. H. Melville; Royal Medical and Chirurgical Society; A Constant Reader; Mr. F. J. Wilson; Mr. James Robertson; Dr. H. Ussher; Dr. John Dickie.

BOOKS RECEIVED.

Illustrations of Dissections. By George V. Ellis and G. H. Ford. Part 9. London: Walton and Maberly.

*** This publication continues to deserve all the praise which we have lavished on the preceding numbers. It is not to be surpassed in clearness, and this is the highest commendation of an anatomical plate.

The Westminster Review. April, 1864. London: Trübner and Co.

*** Contains an article on the Upper Nile and its Inhabitants, which comments severely on Speke's egotism; articles on Strikes, on the Abolition of Religious Tests and of the Punishment of Death in New Zealand, Von Taine's History of English Literature, and on the Philosophy of Roger Bacon. This last is extremely interesting.

Archives de Médicine Navale. Nos. 1 and 2. Janvier et Fevrier, 1864. Paris: J. B. Baillière et Fils.

Journal of the Workhouse Visiting Society. April, 1864. London: Longman and Co.

A Hand-book of Uterine Therapeutics. By Edward J. Tilt, M.D. Second Edition. London: John Churchill and Sons. 1864.

The Australian Medical Journal. March, 1864. Melbourne: Wilson and Mackinnon.

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 14, 1864.

BIRTHS.

Births of Boys, 963; Girls, 973; Total, 1936.
Average of 10 corresponding weeks, 1854-63, 1785·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	654	652	1306
Average of the ten years 1854-63	589·9	576·7	1166·6
Average corrected to increased population..	..	..	1283
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	1	2	5	2	11	10	1
North ..	618,210	..	10	9	2	10	13	3
Central ..	378,655	..	14	6	..	4	6	2
East ..	571,158	2	17	20	2	9	11	4
South ..	773,175	7	7	11	4	15	16	6
Total ..	2,803,989	10	50	51	10	49	56	16

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·738 in.
Mean temperature	51·7
Highest point of thermometer	70·2
Lowest point of thermometer	38·5
Mean dew-point temperature	44·9
General direction of wind	N.E.
Whole amount of rain in the week	0·39 in.

APPOINTMENTS FOR THE WEEK.

May 21. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

Royal Institution, 3 p.m. Alexander Herschel, Esq., "On Falling Stars."

23. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

24. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Ethnological Society of London (Anniversary, 4 p.m.), 8 p.m. Dr. Donovan, "On Empirical and Scientific Physiognomy as Applied to the Study of Races of Man and Individuals."

Royal Institution, 3 p.m. Professor Marshall, "On Animal Life."

Royal Medical and Chirurgical Society, 8½ p.m. Mr. B. Hill, "On the Occurrence of an Additional Muscle to the Subclavius." Dr. Dickinson, "On Albuminuria in Children." Dr. William Murray, "On Abdominal Aneurism." Dr. Greenhow, "On Congenital Imperfection of the Mammæ, etc."

25. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m., Middlesex, 1 p.m.; London, 2 p.m.

26. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m., Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Royal Institution, 3 p.m. John Hullah, Esq., "On Music (1600-1750)."

27. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

Royal Institution, 8 p.m. Reginald S. Poole, Esq., "On Greek Art."

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ORIGINAL LECTURES.

CLINICAL LECTURES ON EPILEPSY,

DELIVERED AT

The Hospital for Epilepsy and Paralysis.

By J. S. RAMSKILL, M.D., etc.,

Assistant-Physician to the London Hospital; Physician to the Hospital for Epilepsy and Paralysis.

Lecture IV.

Gentleman,—Belladonna has active manifestations expressed elsewhere than on the iris, the throat, and skin. It has a well-known action on the bladder in cases of incontinence of urine in children, in spasm of bladder, and we find it exerted on the intestines in epileptics. Its influence in this latter respect is occasionally very inconvenient, inasmuch as a proper influence of the drug cannot be kept up, owing to the diarrhœa which ensues, whilst it very commonly happens that the accustomed use of purgatives becomes unnecessary during its administration. We account for these phenomena, also, by the supposition of a special tonic action on the sympathetic—a nerve abundantly distributed to the intestines and the viscera in the abdomen. It has been suggested that belladonna reduces constipation in epilepsy by lessening or removing clonic spasm which may exist in the muscular coat of an intestine; and in a great many instances, no doubt, this spasm is the true cause of the constipation, and its removal is the effect of the belladonna treatment; but we have no evidence that such spasm exists in a great many cases where obstinate constipation occurs, and especially in those improving cases where there is not the faintest sign of a clonic spasm in any other part of the body. In support of the theory of spasm, the evidence of Van der Kolk may be cited. He found, post mortem, on several occasions, decided contractions in different parts of the intestines. But, on the other hand, a great many post-mortems of epileptics have been performed where no such strictures were discovered, yet the pre-existing constipation was marked. I have myself seen three cases of this kind. It is true, a spasm of intestine may occur here and there, subside, reappear more or less frequently, and after death leave no trace behind it; but I think some commotion, flatulence, or abnormal sensation would be felt by the patient, and elicited by the cross-examination of the Physician. I think the constipation in these cases is due to atony of the muscular coat of the entire tract, to a deficiency of susceptibility to impressions which marks the muscular condition of most chronic epileptics. Powerful stimulant purgatives are very much more permanently useful in these latter cases than in the former, where a temporary benefit is the most we obtain.

With respect to the bladder, we meet with two common forms of spasm associated with epilepsy. A patient micturates at normal periods, usually freely and well; occasionally, however, when two-thirds of the contents of the bladder are discharged, the stream sinks to a mere dribble, and the act is finished by great expulsive efforts, attended by a decided feeling of obstruction to be overcome. This may be due to failure of power of the detrusor muscle, but as we have no analogous phenomenon occurring in the rectum, for I know of no failure of defæcation when a strong desire existed, and as the occurrence of a partial spasm of the sphincter, which the detrusor tends to overpower, seems to be the more natural explanation, and in accordance with the natural history of the disease, I shall take this to be the true explanation of the feeble micturition.

The second form is, perhaps, the more common. A patient will micturate easily and with a full stream until the bladder is again nearly empty, when a complete stoppage, accompanied by a decided crampy feeling referred to the neck of the bladder and parts adjoining, occurs. In a few seconds the feeling passes away, and the power of micturation returns in its full capacity. I would here warn you not to consent to any exploration of the urethra in these cases, if done merely to satisfy the wish of an excitable nervous patient. The following case illustrates the danger of this:—H. H., aged 25, suffered from attacks of grand mal once in five weeks, with interparoxysmal phenomena, "jerks and starts," in fact, clonic convulsions of most of the voluntary muscles. His other symptoms do not bear on the point I wish to illustrate except this one, that he had an occasional spasm of the neck of the bladder, or of the muscular portion of the urethra, or both, recurring not oftener than twice a-week, and then apparently as a sequel to great fatigue or prolonged anxiety. The flow of urine was not checked more than two or three seconds. Now, it occurred to him that he had stricture of the urethra, and he resolved to have the passage explored. He did so; no stricture was found, but as a result of that exploration he had daily, for nearly a fortnight, more or less spasm occurring on all efforts at micturition, and sometimes accompanied by very considerable pain, and cramp, involving all the hypogastric region. In bad paroxysms the symptoms would cease, and recur three or four times in four or five minutes, stopping the flow of urine, the passage of which was the exciting cause. The suffering this patient sometimes experienced was sufficient to produce an anxious, distorted countenance, covered with profuse perspiration.

In fact, he had decided epilepsy of the bladder. There was occasionally a trace of sugar to be found, and latterly a little mucus, but beyond this, the urine was perfectly healthy. The case is the only one of the kind I have met with, but the great local suffering this patient experienced certainly justifies me in advising you not to meddle with the urethra or bladder merely to satisfy the curiosity of the patient. General treatment availed little for the relief of the local suffering, and injections into the bladder seemed neutralised in their effect by the passage of the instrument employed to introduce them. These injections were on several occasions twenty drops of Battley's laudanum; twenty of laudanum and four grains of hyoscyanus. Again the same ingredients, combined with half a grain of belladonna, in warm barley water as a vehicle. Although there was no disposition on any occasion to expel the injection, yet it produced little effect on the coming attack. The patient was most benefited by belladonna suppositories, small injections of carbonic acid into the bladder, and, finally, by cod-liver oil, and by removal to the sea side. He is now in his old condition. He has a slight spasm, as a result of over mental fatigue, or too much exercise. I do not know any reason why we should not have a spasm of the bladder, body, or neck, or of the urethra without the association of clonic convulsions or startings in any other muscles of the body, but I have never seen such a case, except in accidental complication with real stricture. In this case the stricture predisposes to muscular cramp, and under such circumstances, guided by the local aspect of affairs, you may call in the help of the Surgeon. I may observe that I have seen spasm of bladder act as an aura to the general convulsions. As belladonna removes constipation, so it removes likewise the ordinary cases of spasm of bladder of either kind. So also it improves the power of expelling urine, which, in some cases of epilepsy, is very feeble, independently of any spasm. It does so by its tonic action on the sympathetic, thus indirectly improving nutrition and removing muscular debility. Clonic spasms always coexist with imperfect nutrition, and hence the best way to annihilate the spasm is to improve nutrition. Theory and practice in this respect point in the same direction.

Amongst the out-patients to-day was one (J. H.) whom you have seen; and we suppose him cured. His history is as follows:—

J. H., aged 19, apprentice to carpenter; had fits five years. Had no fits in childhood; has five brothers. All the family healthy; no history of syphylis. First fit occurred after a hard day's work, having gone without dinner; it lasted half an hour, was followed by stupor of two hours' duration. A second fit happened in ten days, after a feeling of exhaustion produced by lifting timber. Afterwards, the attacks came at variable intervals, the longest being three weeks apart. They never happen in bed; usually in the after part of the day; convulsion equal; no scream; does not bite his tongue. Has no petit mal. Memory defective, especially latterly; attention good; answers questions with some anxiety and effort. Well nourished as to bulk; fair and tall; says he is physically strong. Pupils large. Has always cold feet and hands. He denies the practice of masturbation. Says he knows when a fit is about him by a sinking feeling in the belly, and his back feels weak; is always more or less flatulent, but most so before a fit; he feels a great want and a desire to eat, but cannot eat much. He shivers once or twice, then falls without further warning. A spoonful of brandy without water will often prevent the fit, then he has always loud eructation of wind. Bowels not relived for three days together, and often not then without the aid of medicine.

July 3.—Ordered extract of belladonna, gr. ½; cod-liver

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oil, ʒj., with four drops of phosphorised oil of the Prussian Pharmacopœia three times daily. To have a hot pediluvium every night; and a hot shower-bath, followed immediately by a free sprinkling of cold water, every morning. To apply a strong liniment of turpentine to the epigastric region about the time of the fits.

10th.—The report is:—One fit of slighter character; all other symptoms better. To continue the same treatment, but increase the belladonna to ⅓rd of a grain.

23rd.—No fit. Flatulence very troublesome at times; it is not so confined to the upper part of the abdomen. Better after meals. Bowels relaxed. To continue the same treatment.

On January 7 he reported having had another fit; he had been well until that time, and he attributes this attack to having left off medicine for three weeks, and to excessive eating and drinking at Christmas time. We continued the same treatment, and from that period to the present (July 10) he has remained well. The flatulence, sinking, and all other symptoms have entirely disappeared, and he looks in perfect health.

This case is a fair, but not a very good, type of a very common class of epileptics. They have for an aura some disturbance of sensation, accompanied, or not, by abnormal feeling of motion in the abdomen. Patients describe these feelings variously, as turning upside down, sinking, fainting, a sense of great coldness, or a rush upwards from the epigastric region, of heat, trembling, borborygmmi, shivering, or a feeling of complete collapse, and emptiness of stomach, sometimes with nausea.

More or less of these feelings may be always present, and exaggerated only just before a fit. I call this class of cases Ganglionic Epilepsy, and I believe the symptoms complained of arise from a disturbed condition of the solar plexus and the ganglionic system of the abdomen generally. It may be from a failure of action, or from a disturbed or intermittent action of the solar plexus, and its dependent neighbouring ganglia. I believe the morbid action starting in the ganglion system propagates itself, by way of the sphlanchic nerves, to the cerebro-spinal centre, and a fit follows. But what I wish most particularly to enforce just now is that this disorder of the ganglionic system is a disease *per se*, often existing alone, and antecedent to any epileptic attack; in fact, that the epilepsy is an accident which issues from, and follows, it, and so is fundamentally different from epilepsy arising from disease in the cerebro-spinal centre, or from a distinct cause of irritation situate in any other part of the body. This ganglionic affection is as much related to hysteria, tetanus, catalepsy, and, perhaps, intermittent fever and cholera, as to epilepsy; and when I meet with such a case I think it wise to ignore the convulsive attacks for a time, if they be infrequent, or look upon them only as an index of our progress in restoring power to the great centre. I should ignore the attacks altogether were it not for the fact, that each attack may, by causing congested blood-vessels, by effusions, by mechanically weakening delicate brain-structure, predispose to other attacks, or by dilating the minute and weakened vessels on the medulla oblongata, cause permanent mischief.

On interrogating such patients, you will generally find a history of overwork, of underfeeding, of mental anxiety, of grief; amongst the female sex of exhausting discharges, as menorrhagia, of many miscarriages, of numerous children, of prolonged lactation. Indeed, many cases arising from the last cause which we meet with in general Hospitals, possess every symptom that epileptics exhibit, even to the clonic convulsive action of the muscles, minus only the general convulsion and loss of consciousness.

The ganglionic system, we have shown, presides over the circulation in the brain; it enters largely into the composition of its substance, and is abundantly distributed to all the viscera in the body. But its great centre is in the abdomen, and failure of power in the central ganglion here, must be followed by failure in some degree, everywhere. What particular nosological disease follows must depend on predisposition, hereditary influence, or special debility of particular centres or parts of body.

Conversely, too, disease of the cerebro-spinal centre, or of brain proper, must influence the ganglionic system, although in a very much smaller degree, and in a more limited area; for, in the one case we have an affection of the great ganglionic plexuses in the abdomen, in the other only a local mischief, since a large amount of cerebral disease is hardly consistent with life.

I look upon the solar and neighbouring plexuses, and the ganglia down the spine, as not only generators, but reservoirs of power. A blow on the epigastrium kills by paralysing the solar plexus; prolonged and unaccustomed exertion takes away all appetite, by exhausting the centre, as many of you must have experienced after walking all day on a first of September. Violent emotion causes fainting, acting in the same way by paralysing the great centre; fright gives rise to a very large percentage of our epileptics; but the fright does not act so immediately, causing the fit; the ganglia are only disordered functionally at first; sometimes days or weeks of uneasiness in the epigastrium, sinking, and mental uneasiness precede the convulsion. Chorea, also, acknowledges fright as its chief cause. Neither is the effect of fear shown in at once producing chorea. A disturbance of nutrition precedes it, and the regulation of nutrition is the great function of the ganglionic system. Given, then, a case of ganglionic epilepsy, our chief and first business is to restore power to the great nervous centre. How this was accomplished in the patient J. H., is mentioned in the short history of his case.

COURSE OF

LECTURES

ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D.,

Professor in University College, and Assistant-Physician to University College Hospital.

LECTURE IV.

(Continued from page 559.)

PATHOLOGY.

Deposits of Urates are of a yellow or pink colour, according to the amount and kind of urohæmatin present in the liquid. The higher the colour the more febrile the state of the body. At one time their presence in the urine was regarded as a sign of the crisis of disease, and hence they received the name of critical discharges. Modern investigation has, however, proved that they cannot always be looked upon in this light, as they may also appear under a variety of conditions, which, although abnormal in themselves, are not truly diseased states, according to the usual meaning of the word. Thus, for example, urates may be deposited in the urine after a slight attack of indigestion, the result of over eating or drinking. Great exertion, especially if accompanied by profuse sweating, will also cause them to appear. Hence we find them present in the urine after a fatiguing walk, a long day's hunting, or even after a ball, or other such occasional amusement, especially if it has been associated with much mental excitement. Hard study, and even a fright will in some persons be followed by a deposit of urate of soda. A sudden change in the mode of life is a very common cause of their appearance, as, for example, confinement in town to country people, or a few days' residence in France to an Englishman unaccustomed to French dishes. Under none of these circumstances can the deposit be said to indicate a state of disease. It does nothing more than denote a temporary abnormal condition of system which may soon disappear without treatment. If, however, the deposit, instead of being merely temporary, lasts for some days, that of itself would denote that something more than a mere ephemeral derangement of the system is present, and may deserve immediate attention. A deposit in the urine is always a sign of something being wrong, and although, as we have seen, it may occur from very trivial causes, whenever it takes place without appreciable cause, in the otherwise apparently healthy, it is a sign not to be disregarded, as, under such circumstances, it is not unfrequently either the forerunner or associate of gravel or stone. Uric acid in some form or other is the commonest ingredient of all calculi, and there is no period of life exempt from them.

Urates are a very common deposit in the course of acute disease, and they even seldom fail to recur at some period or other in the course of chronic affections. It is, however, only in diseases of an acute febrile or inflammatory type that their sudden appearance can be regarded as indicative of a crisis. Their sudden appearance is due to an important change

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

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having occurred in the condition of the patient, and in general, though not always, it is a change for the better. Such, for example, is observed to occur in cases of gout and rheumatism where the climax has been reached. So also in pneumonia and pleurisy when re-solution and absorption commence.

Should a patient, not labouring under any febrile or inflammatory affection, be every now and then troubled with a pink deposit in the urine without any assignable cause, it will be found, in almost nine cases out of ten, that he is suffering from some chronic affection of the heart, liver, or spleen, with which is associated a tendency to gravel. In all such cases, therefore, steps should immediately be taken to counteract this disposition by the administration of alkaline tonics. Should there, however, be any counter-indication to the direct alkaline treatment, those acid salts are to be employed which, during their passage through the body, are converted into alkaline carbonates—such, for example, as citrates, tartrates, lactates, and acetates. Every now and then an exceptional case may arise, where a mineral acid tonic is demanded, under such circumstances the above rule may be departed from, and the case treated according to its special requirements.

It not unfrequently happens that there are crystals of free uric acid scattered among an amorphous deposit of urates. This is more frequently the case in the course of chronic than of acute affections, and generally arises from there being an excess of acid in the urine which has combined with some of the alkaline base and set a portion of the uric acid free.

The crystals of uric acid form on the bottom and sides of the vessel as the urine cools, and, if large, they may be readily detected by the naked eye, in consequence of their yellow, red, or brown colour. Uric acid, like urea, when crystallised in urine always takes up a part of the urohæmatine or any other colouring matter that may chance to be present. So that, the paler the urine, the less coloured are the crystals; the darker the urine the more coloured the crystals. In abnormal urines containing blue, black, or saffron-coloured pigment, the uric acid crystals are blue, black, or yellow; as in these variously-coloured specimens now before you. The crystals are easily recognised by the naked eye if the urine be put into a wine-glass and the deposit allowed to fall to the bottom.

Uric acid is not necessarily in excess when it crystallises spontaneously—though that is the general rule. It has just been said that an excess of free acid induces its crystallisation. I may now add that it is also deposited when from any cause the proportion of alkaline base is abnormally diminished. This arises from the circumstance that uric acid is much less soluble than any of its salts, even the urate of ammonia included.

The daily amount of uric acid excreted varies very considerably in disease. It is generally in excess during the course of all fevers (yellow fever excepted), exanthematous affections, and inflammatory diseases. It has been found doubled in typhus (Parkes), greatly increased in small-pox, as well as considerably augmented in pneumonia. In certain diseases crystals of free uric acid are spontaneously deposited in the urine. This is more particularly the case in hepatic, cardiac, and splenic diseases.

In liver affections there is frequently a spontaneous deposit of free uric acid among the amorphous urates, which, as already said, are so common in those affections. This is more particularly observable in cancer of that organ, in which case, too, the uric acid is generally in excess;—a fact frequently made use of in diagnosis, for in non-malignant hepatic disease, especially towards its latter stages, the uric acid is found to be remarkably diminished. I had once an admirable opportunity of verifying this statement in a fatal case of jaundice, about which there was some difference of opinion as to its cause, some of the Medical attendants thinking it a case of cancer; others of non-malignant obstruction,—the latter view being greatly supported by the fact of there being no excess of uric acid in the urine. This case I had the opportunity of carefully watching to its termination, and, gradually, as the liver ceased to perform its normal functions, the uric acid diminished, until it at length totally disappeared from the urine.(h)

Date.	Quantity of urine in 24 hours. Cc. or.	Quantity of uric acid in 24 hours. grammes. grains.
November 4	. 1705 = 55	0·511 = 7·92
December 1	. 1333 = 43	0·266 = 4·123
,, 12	. 1023 = 33	None.

In leucocythemia a great excess of uric acid is said to occur.

(h) A full report of this case is given in the author's work on Jaundice, and Diseases of the Liver and Pancreas, p. 71.

It even occasionally happens that a spontaneous deposit of free uric acid occurs in the course of chronic bronchitis, emphysema, and phthisis. This is supposed to be in consequence of the uric acid in the blood being imperfectly oxidised into urea.

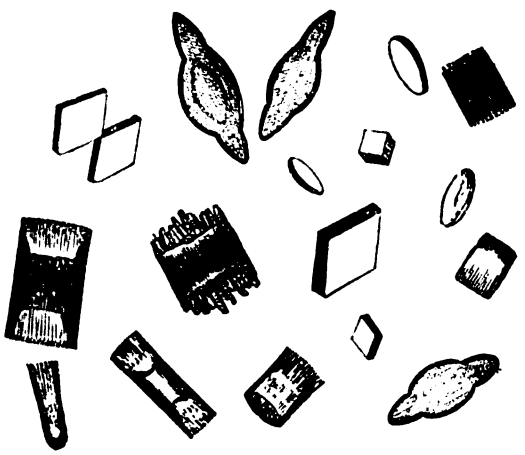
It will be remembered that it was already said that urea to some extent comes from the direct oxidation of uric acid in the circulation, and therefore, whatever retards oxidation tends to diminish the quantity of urea and increase that of uric acid. Hence it is that in all cases of disease attended with imperfect arterialisation of the blood the urea is diminished, and the uric acid increased. There are, of course, exceptions to this rule; in December, 1859, Mr. Murray sent me some urine from a case of acute phthisis in which there was both an excess of urea and of uric acid.

In certain pathological states of the system the quantity of uric acid excreted is occasionally so great that the simple addition of nitric acid to the urine causes an instantaneous deposit to occur; a deposit which, as Beale justly remarks, is apt to be mistaken for albumen. On one occasion I obtained a copious deposit of amorphous uric acid from the urine of a young man aged 19, suffering from pneumonia of the right side. It was on the eighth day of the disease, and the first of the reappearance of the chlorides. I have observed the same thing in phthisis, Rees has noticed it in typhoid, Parkes in typhus, and Beale has also obtained these uric acid precipitates in a case of hydatid tumour of the liver, and in one of a man suffering from rheumatic fever.

Free uric acid is in general very readily recognised with the microscope, for although the crystals assume a multitude of forms, each form is well defined.

Fig. 9 shows the forms of uric acid most frequently met with.

Fig. 9.



Common forms of Uric Acid.

The crystals may be well-marked diamond-shaped plates, rounded lozenges, ovals, squares, or rods. They may be perfectly solid or composed of condensed bundles of needle-shaped crystals, which are occasionally free at the ends and cause the crystals to resemble, in some degree, a small-toothed comb or a scrubbing brush.

All uric acid crystals polarise, but the play of colours is best seen in the thin flat plates. Indeed, it is sometimes necessary to place a piece of selenite beneath the slide containing the crystals in order to get the polarised colours distinctly.

When a difficulty arises regarding the chemical nature of a crystal, in consequence of it having assumed an unusual form, add a drop of caustic potash, and after the crystal has become dissolved, neutralise the solution with a little hydrochloric acid, and most probably the uric acid will re-crystallise in one of the more common forms. I find the colour always a great aid to the diagnosis, for no crystals are so prone to take up the colouring matter of the urine as those of uric acid. Indeed, by far the majority of crystalline substances met with in human urine are perfectly colourless, even when crystallised in highly coloured urine.

The subjoined woodcut (Fig. 10) contains all the rare forms of uric acid crystals I have ever met with, and I think I may even venture to affirm that the types of all the various forms of uric acid are represented in these two woodcuts (Figs. 9 and 10).

a and *b* in Fig. 10 are not very uncommon. They are often to be met with in the urine of patients labouring under hepatic disease, more especially those in which there is a tendency to gravel or stone. *c* are rare. They look like old-fashioned arrow-heads. Those represented were sketched from a spontaneous deposit in the urine of a gentleman labouring under diphtheria. On one occasion they had a blueish-purple tint. *d* is the rarest of all the forms of uric acid; I have

FIG. 10.

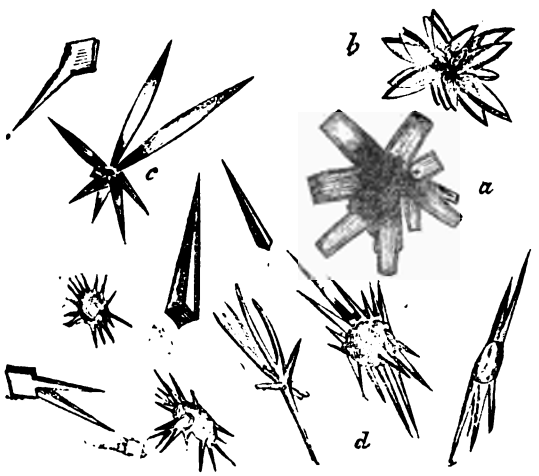


FIG. 10.—Rare forms of uric acid.

only once or twice met with it. Those given were sketched for me by Mr. Alexander Bruce, and are most faithful representations of the crystals, the true nature of which was ascertained by chemical analysis. These crystals were spontaneously deposited in the urine of a boy aged 7 years (Hospital case) suffering from albumenoid disease of the liver, spleen, and kidneys.

Both liver and spleen were excessively enlarged, and the urine was highly albuminous. This leads me to remark that the presence of albumen influences to a certain extent the form of crystalline urinary deposits, especially those of uric acid. Crystals of uric acid are frequently deposited round tube casts and masses of epithelium. Sometimes they appear in the form of rows, as if they had been deposited in one of the tubuli uriniferi, and afterwards floated out with the urine. This is not at all improbable, for be it remembered that, under certain pathological conditions which in this country are, unfortunately, far from rare, deposits of uric acid, either free or combined, take place in all parts of the urinary passages—in the urethra, in the bladder, in the uterus, or in the kidneys. The deposit may occur in the form of sand (as seen in this beautiful wax model), as gravel (as represented in this drawing), or as calculi (as seen in this preparation).

(To be continued.)

ORIGINAL COMMUNICATIONS.

THE ACTION OF WATER ON LEAD.

DETECTION OF FREE HYDROCHLORIC ACID IN ANOTHER WELL OF SPRING WATER.

By HENRY OSBORN, M.R.C.P. Lond.,
Consulting Physician to the Southampton Dispensary.

A PERIOD of more than twenty years has now elapsed since I first discovered the presence of an uncombined mineral acid in spring water, which acid I found to possess the property of corroding lead to such an extent as to render the water highly poisonous, having nearly caused the death of the father of the family who drank the water. The fact of chlorine or hydrochloric acid being a corroding agent of lead induced me to bring the important discovery before the British Association, which was held in this town in September, 1846. Notwithstanding the numerous examinations which I had made of water for the presence of lead and its solvents, I failed to detect the free acid, except in a single instance, until a year or two subsequent to the above date, when I again met with its presence. The first was found in a closed or covered well (to which a pump was attached) in the New Forest, about ten or fifteen miles from Southampton; but the second was discovered in a closed well at Portswood, about two miles from the town.

The circumstance which led me to detect the existence of free hydrochloric acid in another locality was as follows:—At a meeting of the Southampton Microscopical Society last March Mr. Tovey, an excellent microscopist and a member of the society, informed me that he suspected the water which a relation of his was using for domestic purposes contained an acid; and calling to his recollection that I read a paper (a) before the British Association "On the Action of Water on Lead," he thought the discovery of an acid in water had some foundation, though it was doubted at the time, it being the opinion that an uncombined mineral acid could not exist in a soil where earthy carbonates are always present. Mr. Tovey stated that his relation had been living in London before he went to reside at Bitterne, and all the kettles were encrusted with fur, but the water which was now used, drawn from an open well, had dissolved the fur and made the kettles quite clean and bright. I expressed my wish to examine the water, and on being furnished with a wine bottle of it proceeded to evaporate the water most carefully below 212°. The water being reduced to one-half its bulk reddened litmus paper slightly, and when it was evaporated to one ounce gave a strong reaction to litmus. I then requested Mr. Tovey to procure me two gallons of the water for further examination. One quart was carefully reduced as before to about twelve drachms, and found to possess the same acid reaction. I tested this concentrated water for lime, magnesia, and iron, all of which were found in solution; a per-salt of iron existing. The acids indicated by the usual tests were sulphuric and hydrochloric, but I omitted to test for nitric and nitrous acids in this stage of the investigation.

Three quarts of water were next evaporated to two ounces, or rather less, and introduced into a glass retort in order to separate the free acid by distillation. When about two drachms of water had collected in the receiver, it was removed from time to time, and tested with litmus and nitrate of silver; but no acid was indicated until the last two drachms, or thereabouts, came over. The acid thus obtained was strongly acid to litmus, and, when two or three drops were placed on the tongue, it was acid to the taste, and possessed a peculiar odour which I could not recognise; but hydrochloric acid was readily detected by the usual tests. The saline matter left in the retort presented a yellow colour, and not appearing to be quite dry, the heat of the sand bath was increased to about 300°, when fumes of a reddish yellow colour appeared in the retort, having the odour of nitrous acid. A little distilled water being placed in the receiver, the nitrous fumes became absorbed, and, on examination, nitrous acid, with a little hydrochloric, were present. The first acid which came over was evidently impregnated with nitrous, though so slightly that I could not recognise the odour at first.

I have not proved that the nitrous acid existed in a free state, but in all probability a nitrite (perhaps nitrite of iron) suffered decomposition by increasing the temperature, but this point I have not yet determined. I recollect, about fifteen years since, procuring some water from an open spring (not a well), and evaporating a certain quantity of it to dryness at 212°, when the residue appeared to contain a large quantity of organic matter, being very dark in colour; but on elevating the temperature with a view to get rid of the organic matter by ignition, a sudden burst of nitrous fumes took place, showing the presence of nitrites; the water, however, gave no reaction to litmus in any stage of the evaporation.

In conclusion, I wish it to be understood that I bring this subject forward again, not so much with the view to establish a chemical question, but more particularly as an important Medical and sanitary question, as I have hitherto done. The existence of a solvent of lead, in addition to carbonic acid, capable of acting upon almost any metal, and occurring in three different localities, must show that the greatest caution is requisite in the selection of some safe material for the transmission of water. Enamelled iron and gutta-percha are, perhaps, the safest, though the durability of the latter is not always to be depended upon, besides imparting, as it does, a disagreeable taste to water for some time after being in use. Galvanised iron, *i.e.*, iron coated with zinc, is often substituted for lead; and I regret to state that I have met with cases of dyspepsia and other symptoms resulting from zinc in water.

Southampton.

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(a) My paper was published in the *Medical Times*, 1846.

CASE OF PARALYSIS RELIEVED BY ICE.

By F. BROUGHTON, F.R.C.S.,
Surgeon-Major Bombay Army.

Case of J. D., Fairlight, Sussex, 1864.—In the month of October, 1863, I was requested by a friend to visit a poor, bed-ridden girl in whom she took some interest, from the circumstance of her having been her housemaid.

I found the girl (aged 21) had been confined to her bed for upwards of a year. There was entire loss of sensation and motion in both inferior extremities. She could not turn in bed, nor assist herself in any way, but was treated by her mother and sister in every respect as an infant. The loss of motion and sensation extended to a little above the knees. There was neither wasting nor rigidity in the muscles of the legs, but the feet were both stiff and attenuated. She could bear pricking and cutting the skin of both legs without any effect or twitching. Upon examination of the spine, I found no curvature in either cervical or dorsal region; but there was an actual shortening of the left leg of an inch by measurement, and this was connected with an obscure thickening in the sacral region, although I failed to detect any curve in that portion of the spine. There was extreme tenderness on pressure in the lower cervical and dorsal region.

Her general health was good; menstruation natural; had never suffered from any symptoms of hysteria, nor had any accident or injury in childhood. I found upon inquiry that from an infant she had never played like other children; and this was caused by weakness in her back, so that she was accustomed to limp upon one leg.

As she grew older this limp somewhat decreased, and although she never was capable of joining in the sports of her companions, she was still able to go into service, and had for some time performed her duties to the satisfaction of her mistress.

The pain in the back, however, increased, and although much and varied treatment had been resorted to, up to the period when I first saw her both she and her father and mother had given up all hope of recovery.

About this period my attention had been directed to the agency of ice in such cases, by the perusal of Dr. Chapman's paper in your Journal, and, I confess, with no very sanguine hope of success, I directed two pounds of ice, in oiled silk bags, to be applied to the spine every morning for two hours, followed by hand friction down the spine to the extremities for two hours following, the whole body being subsequently cased in flannel.

At first, great pain and distress was the effect produced. The skin in the region subjected to the ice became purple and congested. Her appetite was impaired, and the bowels irregular. I had some difficulty in persuading her to submit to a continuance of the treatment, but at the end of ten days she became reconciled to her suffering, as a little sensation commenced in her feet. This was soon followed by slight motion, and by the middle of November she could turn herself in bed. I continued the ice and frictions, and by December 1 she was able to stand and move about the room. She improved to such an extent that on Christmas-day I had the satisfaction of meeting her walking in the streets of the village in which she resides.

I saw her on February 29, as I was then leaving the neighbourhood, and found her quite able to conduct the ordinary duties of a cottage household.

I employed no medicines in this case, treating the constipation alluded to by a wet compress, and I am disposed to think that this short history may be held as a proof that there is considerable power in the local application of cold in this class of cases, and that a careful investigation of its effects is worthy of the attention of the Profession.

PRESERVATION OF CHLOROFORM.—It requires but a short time for chloroform which is exposed to the sun's rays to undergo decomposition, hydrochloric acid being developed, and a strong odour of chlorine being present. This is prevented if the chloroform is kept in the dark; and when it has undergone decomposition by exposure, M. Boettger finds that it may be easily purified by shaking it up with a few fragments of caustic soda. As long, indeed, as it is in contact with the caustic soda it may be preserved for an indefinite period in diffused light.—*Bull. de Thérap.*, May 15.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

SAMARITAN HOSPITAL.

SIX CASES OF OVARIOTOMY.

(Under the care of Mr. SPENCER WELLS.)

AT pages 560 and 586 of our last volume, reports may be found of eight cases in which Mr. Spencer Wells had performed ovariotomy at the Samaritan Hospital. We now give six other cases in which he has operated since our previous report, making the total number of his operations in this Hospital 52, with a result of 36 recoveries and 16 deaths, or a mortality of 30 per cent. There was an error of one case in our former summary, page 560.

Case 1.—*Ovarian Tumour—Ascites—Umbilical Hernia—Prolapse of Uterus and Vagina—Ovariotomy—Death on the Eighth Day.*

A widow, 33 years old, mother of three children, the youngest 7 years old, came from Dudley, and was admitted November 5, 1863, with an ovarian tumour surrounded by ascitic fluid, the integuments at the umbilicus much distended by the fluid and covering protruding omentum, the uterus prolapsed several inches beyond the valva, inverting the vagina, and causing both cystocele and rectocele, the cavity of the uterus measuring six inches. The disease was of about four years' duration, and the patient had been tapped fifteen times since the first tapping two years before admission, the quantity varying from twenty to thirty quarts. She was kept in Hospital till the cessation of an expected menstrual period, and well fed. On November 30, 1863, the day fixed for operation, the measurements were,—girth at umbilical level, 52 inches; from ensiform cartilage to umbilicus, 17 inches; from umbilicus to symphisis pubis, 10 inches; from ilium to ilium across the front of abdomen, 34 inches. Dr. Parson administered chloroform. Mr. Archer, Dr. Eastlake, Dr. Ritchie, etc., were present. An incision was made from the lower border of the umbilical hernia downwards for five inches, and a very thick, dense sac was exposed, which was at first taken to be the cyst, as thick ovarian fluid escaped as soon as it was opened. Forty-three pints of this fluid escaped, and then an attempt was made to separate a portion of omentum which was adhering around the umbilical ring. This led to the discovery that the ovarian fluid had been free in the peritoneal cavity, and that the only attachments of the ovarian tumour, which was of the size of an adult head, were to the piece of omentum which was protruded at the umbilicus. On separating this, the tumour was easily removed, and a long, slender pedicle, after being temporarily secured by a clamp, was transfixed, tied by a double silk ligature, cut off short, and returned. The only bleeding was from four vessels in the separated omentum. One was stopped by torsion; three ligatures were used to the others, cut off short, and returned. The wound was closed by five deep and several superficial silk sutures.

For the first twenty-four hours after operation the voice and aspect were good, but the pulse varied from 112 to 140. There was a good deal of abdominal pain and some vomiting, with scanty secretion of urine and pungently hot skin, varied by occasional free perspiration. On the second day a dark sanguineous discharge came on from the uterus (which had been replaced) and continued all day. On the third day diarrhœa set in, and was relieved by hot linseed poultices; all the stitches were removed, and some dead epidermis was removed from the umbilicus. She said that this desquamation had always followed her tappings. On the fourth and fifth days she was much better, although the diarrhœa continued, and there was a dark fœtid discharge from the umbilicus with a further separation of cuticle. On the sixth day the vomiting and diarrhœa seemed to be ceasing, but on the seventh morning the pulse became more rapid and feeble; she continued to sink all day, and died at night.

A post-mortem examination was made by Dr. Ritchie. Part of the skin which had been distended at the umbilicus had been separated by sloughing, and portions of subcutaneous cellular tissue were also in a sloughy state between the edges of the skin which had been divided at the incision. There was some subcutaneous emphysema between the um-

bilicus and sternum. On dividing and raising the abdominal wall, the parietal peritoneum was seen to be accurately united beneath the whole length of the wound, and the slough at the umbilicus was perfectly excluded from the peritoneal cavity. The fundus uteri lay on a level between the symphisis pubis and promontory of sacrum. A layer of recent gelatinous lymph formed a sort of arched roof from the sacrum and rectum over the uterus to the bladder and pubes, enclosing about a pint of turbid serum in the pouch of peritoneum between the uterus and rectum, and to the right side of the uterus. This pouch was lined by a layer of lymph. There was a good deal of serum in the loose cellular tissue of the pelvis. The right Fallopian tube and part of the broad ligament were surrounded by silk ligatures which had not included the elongated round ligament. The small slough enclosed in the ligatures had been surrounded by two coils of small intestine, which were adherent to each other and to the end of the pedicle. The omentum seemed quite healthy, but at its lower end there were two ligatures which were very close to the spot where the pedicle and intestine were adhering together.

Mr. Wells remarked to the gentlemen who were present at the examination that it was a matter of doubt whether the fluid in Douglas's space was the remnant of some ovarian fluid which he had not thoroughly sponged out at the operation. He thought this probable, as he had not pushed up the uterus from its prolapsed position until the end of the operation. But it was possibly due to the effusion of serum from a localised peritonitis around the pedicle, which serum had gravitated to the most depending part of the peritoneal sac. It was much less likely to be the serum of pelvic cellulitis escaped into the peritoneal sac. If he had made a puncture by the vagina and let off the fluid, as he had done in three other cases, he thought the patient would have had a much greater chance of recovery; but nothing had led him to suspect the presence of the fluid or to make the examination by which it would have been detected. The case showed the importance of making vaginal examinations when bad symptoms came on after ovariotomy, and, in his opinion, it told against the practice of leaving the pedicle within the abdomen when it could be kept outside, and very strongly in favour of the practice of uniting the peritoneal edges of the incision. It also taught us not to conclude at the operation from the escape of ovarian fluid that the sac had been opened, because this fluid might be free in the peritoneal cavity, one or more cysts having given way long before.

Case 2.—*Multilocular Ovarian Tumour—Prolapsus of Uterus and Vagina—Ovariotomy—Recovery.*

A married woman, 41 years of age, was sent to Mr. Wells by Dr. Whitehead, of Manchester, and Mr. Melland, of Rusholme; and was admitted February 2, 1864, with a large ovarian tumour, and prolapse of uterus and vagina, irritable bladder, and some œdema of legs. The prolapsed surface of uterus and vagina was much ulcerated. She had been tapped once in January, a few days before admission. She was kept for more than three weeks on good diet, and to allow the menstrual period to pass over, and ovariotomy was performed on the 29th of February. Dr. Keith, of Edinburgh, was among the visitors. Dr. Parson administered chloroform. An incision nine inches long was made from just below the umbilicus to two inches above the pubis. The tumour was surrounded by viscid fluid. One long firm band of adhesion was secured by a clamp and divided. (The clamp was removed towards the close of the operation, one vessel tied, and the ligature cut off short.) A pedicle of the thickness of two fingers was secured by a small clamp, between two and three inches from the side of the uterus, and the ovarian tumour was removed entire. The prolapsed uterus was pushed up, all fluid was carefully sponged out of the peritoneal cavity, the pedicle and clamp fixed outside, and the wound united by deep and superficial silk sutures in the usual manner.

The recovery was almost uninterrupted, the only trouble arising from cough, which led to repeated prolapse of uterus, notwithstanding the pressure of sponges and bandages. The clamp came off on March 8, and she was discharged on the the 24th. She called on the 31st, and has been heard of since her return to Manchester in excellent health, cured not only of the ovarian tumour, but of the uterine and vaginal prolapse.

Case 3.—*Multilocular Ovarian Cyst—Ovariotomy—Recovery.*

An unmarried dressmaker, from Yarmouth, 23 years of age, was sent to Mr. S. Wells by Dr. King, of Savill-row, as a favourable case for ovariotomy. The growth of a multilocular ovarian cyst had been rapid, and she had not been tapped. Ovariotomy was performed on March 14. Dr. Koepl, of Brussels, Dr. Hazenfeld, of Pesth, Dr. Druitt, etc., were present. An incision four inches long, made downwards from one inch below the umbilicus, exposed a non-adherent cyst, which was tapped, emptied, and withdrawn. The pedicle was of the thickness of three fingers, and a long expansion of the right broad ligament ran up between the Fallopian tube and the cyst wall, greatly increasing the difficulty of surrounding the pedicle. But after transfixing the broad ligament, and then tying and dividing it, the pedicle was secured by a small clamp close to the cyst, and the ligatures were tied to the clamp, the whole of the strangulated parts being fixed outside. The left ovary was found to be healthy, and the wound was closed in the usual manner. Nine pints and a-half of fluid were collected, and the mass of small cysts weighed about 3 lb.

She went on remarkably well. The clamp was allowed to remain till it came away spontaneously on the fourteenth day, and the patient was discharged well on April 4, exactly three weeks after operation.

(To be continued.)

MIDDLESEX HOSPITAL.

CASES OF TYPHOID AND TYPHUS FEVER, ESPECIALLY WITH REFERENCE TO THE CONDITION OF THE URINE.

(Communicated by Wm. Dunnett Spanton, late Resident Obstetric Assistant to the Middlesex Hospital; House-Surgeon to the North Staffordshire Infirmary.)

(Continued from page 506.)

Case 3.—Susan C., aged 11 years, admitted, under the care of Dr. Goodfellow, on January 1, 1862. Had been a healthy child previously. Had scarlatina and small-pox when young. At the house where the patient has worked as servant three children have had typhoid fever, and at her own home four of the family in succession have been attacked. Her illness began on December 10, with the usual symptoms. A week before admission diarrhœa came on, and soon after delirium. Headache and deafness were severe; there was no epistaxis. Urine had been high coloured and scanty.

On admission there was great prostration; the countenance distressed; lips very dry and incrusted. Skin pungently hot and dry; over the abdomen a few "typhoid" spots. No other eruption. Much meteorism. No gurgling. Abdomen tender everywhere on slight pressure. Tongue cannot be protruded; dry, incrusted, and fissured. Thirst urgent. Complete anorexia. Respiration 30. Frequent "rattling" cough. Breath sounds healthy. Pulse 136, excessively small and weak. Headache severe from brow to occiput. Frequent muttering delirium. Considerable deafness in both ears. Speech almost unintelligible. Ordered to have 6 ozs. wine daily, simple diet with arrowroot, and strong beef-tea. Also a draught of nitric acid and compound tincture of cardamoms, and a pill of camphor, quinine, each one grain, and Dover's powder, a grain and a-half, every six hours. The head to be shaved.

January 2.—Restless and delirious during the night. No fresh spots. Bowels open twice; motions dark ochre-coloured, loose; respiration, 30; pulse, 150. Urine, during twenty-four hours after admission, 10 ozs., very high-coloured, clear, acid, sp. gr. 1025; phosphates copious; albumen about $\frac{1}{10}$th; solids, 58·25 grains in 1000, 279·60 grains in the whole; urea, 33·55 grains in 1000, 161·05 grains in the whole. To continue medicine. To have a powder of chalk and opium if there be diarrhœa.

3rd.—Very restless. Skin less hot; one or two fresh spots; abdomen very tender; bowels open twice yesterday and once in night involuntarily; tongue dry, almost black, deeply fissured; pulse, 132. Takes food fairly. To have a linseed poultice, with mustard and laudanum, to the abdomen. To have added to the pill a-sixth of a grain of sulphate of copper.

4th.—Less delirium. Two fresh spots; others remain distinct. Abdomen less tender; respiration, 34; pulse, 144; passes urine involuntarily.

6th.—Much improved. Replies rationally to questions. Skin less hot and dry. One loose involuntary motion on night of 4th inst.; none since. Tongue can be protruded a little. Takes food fairly. Respiration, 60; cough slight; bronchitic sounds all over chest; pulse, 136: deafness continues; no headache; pupils large and sluggish. To take a pill every

eight hours. To have added to the draught some oxymel of squill. The wine reduced to 4 ozs. daily.

8th.—Slept well; little delirium; very irritable; no pain in abdomen; no spots visible; had one natural motion yesterday; tongue less dry and fissured; thirst slight; takes food well; respiration, 44; pulse, 132, regular. To take the pill twice daily, and to take a teaspoonful of castor-oil occasionally.

9th.—Urine passed voluntarily about 20 ozs. since last night, high-coloured, clear, acid, sp. gr. 1026; no phosphatic cloud with heat; no albumen; solids, 60·58 grs. in 1000; urea, 22·30 grs. in 1000.

13th.—Sleeps well; no delirium; skin still hot and rather dry; abdomen flaccid, painless; bowels confined; tongue becoming coated with new epithelium; respiration easy; pulse, 126, very small; some headache; deafness as before. To omit the medicine. To have beef-tea and an egg daily, and a draught of quinine and sulphuric acid twice a-day.

14th.—Owing to vomiting of food since yesterday, she had a draught of magnesia and aromatic spirit of ammonia every six hours instead of the quinine.

16th.—Improved; no sickness; bowels confined; little appetite; respiration calm; no cough; pulse, 116; some headache still; less deafness. There has been a discharge of pus from the left ear. Urine, 13 ozs. in twenty-four hours, acid, high-coloured, turbid with urates; no phosphatic cloud nor albumen; sp. gr., 1020; solids, 46·60 grs. in 1000, 290·78 grs. in whole; urea, 16·80 grs. in 1000, 104·85 grs. in whole.

18th.—Countenance much more natural; tongue moist, white along dorsum. One motion to-day, dark, rather loose; respiration, 26; pulse, 116, of better power. No headache; deafness slight; urine acid, turbid, sp. gr. 1021, free from albumen. To take the quinine draught twice a-day, and to have meat diet, with four ounces of wine.

20th.—To take, instead of the draught, a pill containing a grain of quinine and a grain and a-half of pil. ipecac. co. twice or thrice daily.

27th.—Convalescent; has not yet been up, but is anxious for it. Appetite fair; tongue clean, moist; bowels confined, unless she takes the castor-oil; respiration easy; pulse 100, firmer; no headache nor deafness. Urine, in twenty-four hours, sixteen ounces, clear, amber-coloured, sp. gr. 1020, free from albumen; solids 46·60 grains in 1000, 357·88 grains in whole; urea, 13·76 grains in 1000, 105·67 grains in whole.

On February 7 the patient was allowed to leave her bed. From this time she gradually improved without any untoward symptom, and on the 25th was discharged well.

Case 4.—Harriet P., aged 29 years, admitted under the care of Dr. Thompson, on November 6, 1861. Has generally been healthy, and lived well. On October 22 she went to Northampton to see her father, who died of typhoid fever on the 25th. On the 31st the patient left, not feeling so well as usual. The symptoms of typhoid began from that day to be manifest.

On admission the countenance was deeply flushed, the lips parched and florid; skin pungently hot, free from eruption; bowels relaxed; tenderness on pressure over the whole abdomen, most marked in the right iliac region, where there was also slight gurgling; tongue dry, brown, fissured; much thirst and anorexia; respiration 36, short. At posterior part of each lung sonorous and sibilant rhonchi were heard; slight cough; pulse, 124, weak; heart sounds healthy; very severe vertical headache; slight deafness and tinnitus aurium; intelligence confused. Ordered to have simple diet, beef-tea, and four ounces of wine daily. To take a draught containing bicarbonate of soda, chloric æther, and syrup of poppies, with camphor mixture every six hours. The head to be shaved, and ice applied to it, and turpentine fomentations applied over the abdomen.

November 8, ninth day.—Delirium during the night; decabitus dorsal; countenance very dull; several "rose spots" over abdomen; no petechiæ; several motions since admission, pultaceous, of a dark green colour; thirst extreme; respiration, 44, short; pulse, 140, small, weak; headache very severe; sometimes delirious, but not constantly. Ordered to take the pilula cupri comp. twice a-day.

9th.—Violently delirious during the night, and continues so. Lips and teeth incrusted; skin less pungently hot; tongue deeply fissured, dry; last night passed four loose motions and urine involuntarily; respiration, 40; no friction sound audible; pulse, 140, very weak and small. Ordered to have three ounces of brandy immediately and ten ounces of wine daily; to continue the pills every six hours; to have applied over the abdomen a poultice of linseed with laudanum.

11th.—Delirium continues, but is not constant; face flushed; spots disappearing—no fresh ones; bowels continue loose; respiration, 32; bronchial breathing at both apices, most marked on the right side, where is dulness on percussion; pulse, 130, small and weak; headache very severe. To have an enema of starch, with twenty minims of tincture of opium, directly; wine reduced to six ounces.

13th.—Restless; no delirium; replies readily to questions; bowels open once since injection; tongue moist, fissured, florid; very little abdominal tenderness; respiration, 26; pulse, 112, small; headache relieved by the ice—very severe when this is not applied.

14th.—Better night; respiration, 30; pulse, 124; numerous pemphigenous spots on the back. To have eight ounces of wine daily; arrowroot, milk, and beef-tea as before.

15th.—No delirium; perspired freely last night; no fresh spots—a few are still visible; abdomen tender on pressure; much gurgling; two dark loose motions to-day; respiration, 32; frequent cough; pulse, 116, very small, firmer. To have turpentine fomentations to the abdomen, and tinct. of iodine painted over the chest.

17th.—Much improved; skin hot, moist; spots all gone; tongue clean, mammillated; bowels confined; less thirst; no pain in abdomen, unless it is pressed; respiration, 28; breathing good at the bases of lungs; bronchial at right apex as before; pulse, 98, small, soft; headache slight.

21st.—Convalescent; aspect cheerful; bowels quiet; abdomen quite free from tenderness; appetite returning; respiration, 24; cough troublesome in the night: pulse 92, fuller, soft; no headache; occasional deafness and tinnitus aurium. To have an egg daily.

23rd.—Awoke in the night with sharp pain in the abdomen, which passed off. Bowels rather loose. Respiration 24, pulse 76. To take one of the pills each night, and a draught of carbonate of soda and tincture of orange thrice daily. To have two eggs daily.

28th.—Except a slight return of abdominal pain on the 25th inst., which was relieved by turpentine fomentations and a small dose of castor oil, the patient has steadily improved; she is now able to be up during part of the day. Ordered to have fish diet.

On December 21 she was discharged well.

Case 5.—Thomas R., aged 23 years, admitted under the care of Dr. Goodfellow on February 13, 1862. About five days before admission, after living badly for some time, began to suffer from anorexia, thirst, headache, tinnitus aurium, cough with some dyspnœa and general malaise; had also epistaxis several times. The bowels were confined.

On admission his face was deeply flushed, the lips dry; skin hot and dry, almost covered with a measly eruption, the spots ill-defined and irregular, of a dusky colour, not disappearing on pressure; bowels rather relaxed; slight tenderness in hepatic region, none elsewhere; tongue dry, brown in centre, grey and moist at edges; much thirst and anorexia; respiration 30, short; subcrepitant rhonchi at base of lungs; some cough; pulse 112, moderately full; heart sounds distant. Complains of vertigo and constant tinnitus aurium; no deafness or headache; slight strabismus of both eyes; somnolent, but mind coherent; urine amber coloured, clear, acid, sp. gr. 1022, giving slight phosphatic cloud with heat, about $\frac{1}{20}$th albumen. Solids 51·26 grs. in 1000; urea 36·95 grs. in 1000. The head was ordered to be shaved, and spirit lotion applied to it. Simple diet and beef-tea with a drink of two drachms of chlorine water in a pint of water were ordered, and a draught containing five minims of nitro-hydrochloric acid every second hour.

February 14.—Slept fairly; no delirium; eruption more dusky; bowels open once during the night; motion loose, free from blood; respiration 26, short; pulse 128, small, compressible; urine sp. gr. 10·18, acid, amber coloured, albumen about $\frac{1}{20}$th.

15th.—Muttering delirium during the night. Spots marked yesterday are less distinct; no true petechiæ. One fæculent motion free from blood. Respiration 40. Sputa rust coloured. Pulse 120. Urine: Sp. gr. 1019, acid, amber coloured, 16 ozs. during twenty-four hours; a trace of albumen; solids 44·25 grs. in 1000, 339·84 grs. in the whole; urea 28·50 grs. in 1000, 218·88 grs. in the whole. To have a pill containing a grain of Dover's powder and two grains of hyd. c. cretâ night and morning. To continue the draught. To have as much wine as he likes.

16th.—Rather restless during the night. Several true "rose spots" are visible among the dusky patches. Bowels

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open twice. Respiration 52. Pulse 124. Tinnitus continues. No headache. Urine in twenty-four hours, 18 ozs., sp. gr. 1015, acid, amber coloured; albumen a trace; solids 301·96 grs. in whole, 34·95 grs. in 1000; urea 241·22 grs. in whole, 27·92 grs. in 1000.

17th.—Much the same. Respiration 44. Pulse 124. Urine in twenty-four hours 17 ozs., acid, amber coloured, with deposit of urates: sp. gr. 1017; trace of albumen; solids 39·61 grs. in 1000, 323·20 grs. in whole; urea 25·32 grs. in 1000, 206·62 grs. in whole.

18th.—Slept well. Skin less hot and dry. Numerous petechiæ are now visible. Tongue moist, cleaning. Bowels confined. Respiration 36. Cough almost gone. Pulse 128. No headache, no deafness, nor tinnitus. Urine in twenty-four hours, 33 ozs., dark amber coloured, turbid with urates, acid, sp. gr. 1018; no albumen; solids 41·94 grs. in 1000, 664·32 grs. in whole; urea 14·975 grs. in 1000, 237·20 grs. in whole. To omit the pills; continue the draught and 6 ozs. sherry.

19th.—Urine passed chiefly at stool, amber coloured, clear, acid, sp. gr. 1020; no albumen; solids 46·60 grs. in 1000; urea 17·52 grs. in 1000.

20th.—Sleeps quietly. No fresh spots. Bowels relaxed. Tongue cleaning. Respiration 36. Pulse 96. Low spirited, and complains of headache. Urine acid, clear, pale amber coloured, sp. gr. 1017; no albumen; solids, 39·61 grs. in 1000; urea 18·08 grs. in 1000.

22nd.—Much improved. Rash nearly gone. Bowels quiet. Tongue almost clean. Cough troublesome. Respiration 32. Pulse 96. No headache. Deafness continues. Urine in twenty-four hours, 30 ozs., acid, light amber coloured, sp. gr. 1018; no albumen; solids 41·94 grs. in 1000, 559·53 grs. in whole; urea 32·30 grs. in 1000, 565·12 grs. in whole. To have a draught of acetate of ammonia every six hours.

24th.—Urine in the twenty-four hours 32 ozs., acid, pale amber coloured, sp. gr. 1018; no albumen; solids, 41·94 grs. in 1000, 644·19 grs. in whole. Urea 30·00 grs. in 1000, 460·08 grs. in whole.

March 2.—Is able to be up a little. Perspired very freely last night. Bowels open once daily. Appetite good. Resp. 23. Pulse 72. Senses all perfect. Urine in twenty-four hours, 60 ozs., acid, clear, straw coloured, sp. gr. 1010; no albumen; solids, 23·30 grs. in 1000, 671·04 grs. in whole. Urea, 9·30 grs. in 1000, 267·85 grs. in whole. To omit the medicine, to have good diet and continue the wine.

11th.—The patient continued to improve rapidly, with the exception of a rash appearing over the body like that of scabies. This was relieved by the use of sulphur. Discharged to-day.

Case 6.—Thomas S., aged 61 years, a laundryman, was admitted under the care of Dr. Goodfellow on February 13, 1862. This patient had a very low form of typhus. The rash was very well marked, with constant and long-continued low delirium and extreme prostration. He remained in a very precarious state until February 23, when some degree of improvement was manifest, and from that time he became slowly convalescent, and left the Hospital at the end of March. The treatment consisted of quinine, acids, and bark, with abundance of wine, beef tea, etc.

(To be continued.)

MUNIFICENCE.—The Right Hon. Lord Stanley, M.P., has just transferred to trustees the sum of £1000 for the benefit of the West Norfolk and Lynn Hospital, and the friends of the undermentioned Medical charities will be glad to learn that their respective funds have been increased by the following liberal bequests under the will of Mrs. Elizabeth Veal, of Bellevue, Hampstead, which has just been sworn under £10,000. This lady has directed that £500, free of duty, be given to University College Hospital, £500 to King's College Hospital, and £500 to the Cancer Hospital. The late Sir William Brown, Bart., of Richmond-hill, has bequeathed to the Northern Hospital, Liverpool, £1000; the Southern Hospital, £500; the Royal Infirmary, £500; Deaf and Dumb School, £500; Blind School, £500; and to the Eye and Ear Infirmary, £100. Thus we have the magnificent sum of £5600 distributed to Medical charities in one week.

CASTOR-OIL IN THE FORM OF PILLS.—M. Stanislas Martin recommends the following as an easy mode of administering castor-oil. Rub up together oil 15, powdered gum acacia 8, and water 15 parts, and then gradually add 15 parts of wheat flour. Mix well together, and divide into boluses or pills, which, left exposed to the air, soon become dry. The purgative action may be increased by substituting an equal quantity of magnesia for the flour.—*Bull. de Thérap.*, May 15.

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Medical Times and Gazette.

SATURDAY, MAY 28.

THE LA POMMERAIS TRIAL.

THE trial for poisoning which has lately been concluded in Paris demands a more than passing notice. It may be said to mark an era in the history of toxicology. Hitherto, the great means by which science has aided justice have been the test-tube and the balance, whilst physiological experiments, if offered as evidence at all, have been received as of doubtful, or, at least, of inferior, value. We do not call to mind any previous instance of alleged poisoning where experiments made on animals with the vomited matters and extracts derived from the viscera have been considered sufficiently trustworthy scientific evidence to support a conviction. It will be remembered that this kind of proof was recently offered in this country by a distinguished toxicologist, but the jury did not consider it so free from doubt as to warrant the condemnation of the accused. We may at once say that we entirely agree with the verdict in the Parisian case. The amount of moral evidence against La Pommerais was enormous, and, taken together with the symptoms and mode of death of the murdered woman, and the absence of all previous disease, as proved by the post-mortem examination, constituted an overwhelming weight of proof. We also freely admit that the results of the experiments made by MM. Tardieu and Roussin were perfectly in accordance with, and intensified the force of, the other evidence. But even in this instance we are not prepared to regard the physiological as the main proof against the prisoner; neither are we disposed to accept evidence of this kind as of equal value with chemical—at least, until the action of all toxical substances, organic and inorganic, upon the lower animals has been more systematically and carefully investigated and compared with their known effects upon the human subject. It is quite true that there are certain organic vegetable poisons, of which digitaline is one, which cannot, in the existing state of chemical science, be isolated and satisfactorily demonstrated. Where poisoning by these is suspected, physiological experiment may be accepted as an ancillary mode of investigation; but we hold that it would be dangerous at present to exalt such proof into the rank of a certain and crucial test.

The enormous amount of evidence taken in the late trial obliges us to confine our attention solely to the Medical and toxicological details. Of these we shall endeavour to acquaint our readers with the most important. We may notice, however, that La Pommerais was tried for two murders—that of his mother-in-law, Madame Dubizy, of which he was acquitted, and that of his mistress, Madame de Pauw. It is to the facts of the latter case that we shall alone refer.

In order to give the following account the form of a connected history, we may remind our readers that the prisoner is a homœopathic Practitioner; that he had induced his victim to insure her life for the sum of £22,000 in eight different insurance offices; that he had also persuaded her to assign

the insurances to himself. A short time before her death, she had, by his advice, feigned illness in order to deceive the insurance offices, and obtain from them a life annuity in place of an insurance. Although a homœopathic Practitioner, La Pommerais was found to be possessed of a large quantity of the most potent poisons. In the month of June last, he had purchased three grammes of digitaline, of which only fifteen centigrammes remained in his possession. At eight o'clock in the evening before the death of Madame de Pauw, La Pommerais visited her. Directly after he left she was taken ill, vomited violently through the night, and died at five o'clock in the afternoon of the next day.

It was on the 17th of November last that M. Paul Blachez was called to attend Madame de Pauw. On his arrival, he found her in a dying state. She was apparently unconscious, at least it was impossible to elicit any sign from her; her body was covered with an abundant cold sweat; there was great disturbance of the circulation, the pulse being irregular and intermitting. She cried out continually, in a weak voice, "Oh, my head! oh, my head!" She retched several times, but whilst he was with her did not vomit freely. She then fainted so completely that her pulse entirely disappeared, a whitish froth escaped from her mouth, and she died. He at the time attributed her death to the rupture of an aneurism. She had, however, in the September previously, consulted, amongst other Medical men, a M. Gaudinot, on account of a fall which she asserted she had had, and he had attended her at intervals up to the day of her death. M. Gaudinot was applied to for a certificate of the cause of death, and he gave one to the effect that it was the result of gastro-enteritis, produced by the fall, and terminating in perforation of the stomach. Our readers will remember that the whole story of the fall and of her subsequent illness was fabricated for the purpose of deceiving the insurance companies. The evidence proved that she had been in excellent health up to the time of her death, and that just before she was taken ill she had dined heartily on vegetables.

Thirteen days after her death the body was exhumed under the superintendence of M. Tardieu, Professor of Legal Medicine and Dean of the Faculty of Medicine in Paris. The body and external organs were in a state of perfect preservation—so perfect that had any lesions, the result of previous disease, been present, they would have been at once recognised. The results of the autopsy were entirely negative. The heart was unaltered in size, and its valves acted perfectly. The blood was semi-coagulated, but there was an absence of clots. The lining membrane of the stomach was perfectly healthy, that of the intestines presented some sanguineous infiltrations, but they were few in number. The deceased was advanced seven or eight weeks in pregnancy. The chemical analysis, which was conducted by M. Roussin, was made by obtaining alcoholic and watery extracts of a portion of the stomach and intestines. The solid residue exhibited no trace of mineral poison, neither was any organic poison which could be isolated obtained from the extracts.

Shavings of the floor of the apartment on which the deceased had vomited were also procured, and for the purpose of comparison shavings from the floor of a different part of the room. From the former sixteen grammes and a-half of alcoholic extract were obtained. This had a brown colour, a peculiar rancid and oily odour, and a very bitter taste. On incineration it left no metallic residue; it was precipitated abundantly by tannic acid; the addition of sulphuric acid turned it of a reddish purple colour, and hydrochloric acid produced a green tint. The extract of the shavings which were unsoiled by the vomited matters had an aspect and odour closely resembling the preceding, but it had no bitter taste, it was not precipitated by tannic acid, and only slightly coloured by sulphuric and hydrochloric acids; the tints struck by these acids were entirely different to those produced in the former extract.

It was clear that this result proved nothing as to the existence of poison. The change in colour produced by sulphuric acid, and the precipitation by tannic acid, are reactions common to many organic matters, and, as was observed by M. Hébert, the green colour which followed the addition of hydrochloric acid would have been a more important indication had the chlorophyll of the vegetables (cauliflower and sorrel) which she had eaten, and the green colouring matter of the bile, been previously removed. In the failure of their chemical investigation, therefore, the experts had recourse to physiological experiment.

The first trial was made with the extract obtained from the shavings of the floor on which deceased had vomited. At five minutes past one a dog was inoculated with five grammes of this extract, introduced by two incisions on the inner surface of the thighs. At half-past three, the animal vomited thrice. The vomited matters were glairy and bilious. The pulse, which at the commencement of the experiment was 110, had fallen to 94; it was irregular and intermittent. The beat of the heart was irregular and intermittent, at times appearing to cease suddenly, and then becoming rapid. The respirations were slightly intermittent. At half-past four the heart-beats fell to 76, and the animal again vomited. At eight in the evening it could stand with difficulty. The slightest movement appeared painful, and provoked vomiting. The heart beats were still irregular, and 68 in the minute. At eight the following morning the animal was cold, but sensible. The heart-beats were less strong, and had fallen to 40. Their irregularity and intermittence were very remarkable. Respiration was jerking and intermitting. The animal died at eleven o'clock, apparently without pain. There was no coma. The examination of the body was made two hours after death. The ventricles of the heart were markedly contracted, although the auricles were dilated. All the cavities of the heart were filled with black, thick, and partly coagulated blood. On removing the pericardium some elevations of a vivid red colour were observed on the surface of the heart near the apex.

2nd Experiment.—Two grammes of the same extract were administered by the mouth to a rabbit. Great irregularity of the heart's action ensued. The beats fell to 41 in a minute. The animal died in two hours and three-quarters from the administration of the extract. The cardiac auricles were found dilated, the ventricles contracted, the latter strongly contrasted by their blackish colour with the rest of the organ. The interventricular space was remarkably depressed. The apex of the heart was of a vivid red colour, and the walls presented several red elevated spots.

The third experiment was one made for the sake of comparison with the extract obtained from the shavings of the floor, on which the vomited matters had not fallen. Four grammes of this extract were administered to a rabbit. It did not vomit nor was it in the least incommoded, and two days afterwards it continued in perfect health.

The fourth experiment was made with the alcoholic and aqueous extracts obtained from the stomach and intestines of the deceased. Five grammes of a mixture composed of equal parts of these extracts were introduced into an incision made on the inner surface of the thigh of an adult vigorous dog. At three o'clock the animal's pulse beat 102 in a minute. At half-past four it seemed depressed, anxious, it respired with difficulty, and its pulse had fallen to 86, and the heart's action was irregular and intermittent, but less so than in the case of the dog experimented on with the vomited matters. The animal vomited twice. At eight in the evening the pulse had fallen to 55, and was manifestly irregular and intermittent. Respiration seemed difficult. The animal frequently changed its position and uttered half stifled cries; it retained its intelligence. The following day, at half-past eight in the morning, the beat of the heart had risen to 70 pulsations in the minute; the general condition of the animal was improved, and it ultimately recovered.

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The fifth experiment was also made with the extracts of the

viscera. Four grammes were administered to a rabbit, which died in a few minutes. The experimenters thought that its rapid death was owing to some accidental complication—perhaps syncope—having hastened the action of the poison.

The sixth experiment was performed on three frogs. After having laid the heart bare in each, and observed that the pulsations in the three were perfectly equal, the experiment proceeded as follows:—

1. The first frog was left in the normal condition, care only being taken to preserve the humidity of the heart.

2. The second frog. Six drops of a solution containing one centigramme of digitaline in six grammes of water were injected under the skin of the belly.

3. The third frog. Fifty centigrammes of the extract made from the shavings of the floor on which the vomited matters had been spilt were injected under the skin of the belly.

The following variations in the number and beats of the heart were observed in the three animals:—

Minutes.	No. 1. Pulsations.	No. 2. Pulsations.	No. 3. Pulsations.
After 6	42	20	26
„ 10	40	16 irregular	24 irregular.
„ 20	40	15 id.	20 id.
„ 28	38	0	12 very irregular.
„ 31	36	0	0

This experiment was repeated several times with the same result.

The experts relied on the first experiment as proof of the fact that the vomited matters contained poison. The third demonstrated that the poison did not previously exist in the floor of the room. The fourth was held to prove that the stomach and intestines of the deceased contained the same poison, but in less quantity than the vomited matter, the dog having recovered from its effects. The sixth experiment on the frogs was instituted to demonstrate the nature of the poison used. The experimenters did not consider it of the highest importance, but it corroborated the former ones. It pointed to that group of organic poisons which are known especially to affect the heart's action, and heightened the probability that death had been caused by digitaline. The report of M. Tardieu drew a comparison between the symptoms exhibited by the first dog and those noticed in the last illness of the deceased. In both there were repeated and violent vomitings, and rapid loss of power. In both the pulse was irregular and intermitting; in both the heart's action was tumultuous and irregular, apparently ceasing at times, until it was finally suppressed. The following were the conclusions of the report:—

1. Madame de Pauw died from the effects of poison.

2. The poison which killed her was one of those vegetable poisons which do not leave characteristic traces in the organs of the body, nor can they be isolated by chemical analysis. They reveal their presence by their effects, and are detected by their deadly action on living beings.

3. We obtained from the vomited matters and the organs of deceased submitted to analysis a very energetic poisonous principle which, when administered to animals, produced analogous effects to those observed in Madame de Pauw, and killed them in the same manner.

4. These effects and this action have a strong resemblance to those of digitaline, and without asserting it as a fact, there is a strong presumption that Madame de Pauw was killed by that agent.

5. That deceased was not really ill before the day which preceded her death.

6. The post-mortem examination proved that death was not caused by the effect of a fall, nor by an internal hæmorrhage, nor by an acute or chronic gastro-enteritis, nor by a perforation of the stomach, nor by any natural cause.

We will only add that M. Tardieu's report is drawn up with marvellous clearness, minuteness, and perspicuity, and is a model in way of arrangement and execution for similar documents.

We have now to examine the criticisms on the report of MM. Tardieu and Roussin, offered by M. Hébert, the expert employed for the defence. The first point noticed by M. Hébert was, that the unusual preservation of the body, as poisoning by any mineral substance was out of the question, did not favour the idea of poisoning. He next asserted that neither the chemical nor the physiological experiments made with the shavings of the floor on which the vomited matters had been spilt, were of any force. The reason for assigning no weight to the chemical experiments we have already noticed. The objections to the physiological experiments were the following:—The extract of the vomited matter contained organic matter in a state of decomposition, sufficient of itself to produce toxical effects. The dog in the first experiment exhibited a gradual and progressive retardation of the heart's action, and after death that organ was found in a state of contraction. There are two reasons for believing that death did not result from digitaline—the first, because MM. Bouley, Reynal, Delafond, Dupuy, and Stannius, have found that digitaline in small doses retards the heart's action, but accelerates it if given in considerable doses. Secondly, that in poisoning by digitaline the heart, instead of being contracted, is dilated and gorged with blood.

With regard to the state of the heart, the same objection applies to the rabbit used in the second experiment. The rabbit also being an herbivorous animal was one of the worst which could be selected for an experiment with digitaline, for MM. Homolle and Quevenne have demonstrated that herbivora, and rabbits especially, are refractory to the action of digitaline. The dog submitted to the fourth experiment was only indisposed; it did not die, much to M. Hébert's surprise, for there had been injected into its subcutaneous cellular tissue alcoholic and watery extracts of the viscera of a person who had been dead a fortnight. Although the parts were in a remarkable state of preservation, it could not be alleged that no process of decomposition had taken place in that time, and the known facts of poisoning by decomposing animal matters completely account for the phenomena observed. With regard to the frogs, M. Hébert observed that these animals were worse chosen than the rabbits, because, according to Stannius, they are exceedingly refractory to the action of digitaline. M. Hébert was astonished at the statement that the number of cardiac pulsations was perfectly equal in the three animals, because in experiments made by him he had found notable differences. The preliminary operation to which they had been submitted, consisting of raising the skin, the abdominal muscles, and sternum, in order to bare the heart, would suffice by the hæmorrhage and shock produced to sensibly alter the action of the heart and to diminish the number of its pulsations. In the first frog experimented on by the experts the pulsations had fallen from forty-two to thirty-six, whilst in one experimented on by M. Hébert they had fallen in thirty-one minutes from fifty-seven to forty-three. M. Hébert expressed himself surprised at the result of the experiment on the second frog, because he had made similar experiments with a solution of exactly the same strength. One frog had received thirty-six drops in six injections without any inconvenience; a second received fifty drops in one injection, and was but slightly indisposed, and soon recovered.

Two other objections were especially urged by M. Hébert. One was that the experts had not for comparison poisoned a dog with digitaline in the same manner that the dog was poisoned with the extract of the vomited matters. The other was that they had not repeated the experiment on the dog which recovered by administering a stronger dose of the extract derived from the stomach and intestines. M. Hébert concluded by insisting on the following points:—1. That there was no chemical evidence of poisoning. 2. That the experiments made on animals not only were insufficient to demonstrate the presence of digitaline in the vomited matters, but, on the contrary, proved positively that the vomited matters did not contain it. 3. That no animal was poisoned by the

extract of the organs of the deceased, and that the symptoms observed in the dog inoculated with it were attributable to the action of putrified organic matter. He concluded that the existence of poisonous matter supposed to be digitaline had not been demonstrated, and that the facts alleged in the report of the experts did not prove that the deceased had been poisoned.

It will be observed that M. Hébert limited his attack on the evidence given by the experts to what we believe to have been the most vulnerable point in their report—the physiological experiments. He left entirely unnoticed the symptoms which had been observed before death, and the entire absence of natural disease revealed by the autopsy of the deceased. The objection to the report, founded on the state of preservation of the internal organs of the body, was answered by the statement that the experts did not rely upon that condition as any proof of poisoning, but simply as enabling them to pronounce definitely as to the non-existence of previous disease. The assertion that the extract obtained from the viscera really contained organic matter in a state of putrefaction was met by the statement that the matter with which the dog was inoculated was not the mere *débris* of the organs themselves, but was the product of the treatment of the organs with alcohol at 95°, and with boiling water, and subsequent filtration and evaporation. The objection that a second dog had not been poisoned by digitaline was answered by the assertion that the experimenters had not thought it necessary: their conviction was complete. Moreover, that the readiness with which a dog vomits was a reason for not administering to that animal digitaline by the mouth. The only way to obviate immediate vomiting was by tying the gullet—an operation which was now allowed to have thrown doubts on the results of all Orfila's experiments. We may observe, however, that this was no answer to the objection that digitaline had not been introduced into the subcutaneous cellular tissue. Another objection, that a larger quantity of the extract of the stomach and intestines had not been given to the dog which recovered, was met by the assertion that the dog was poisoned, although it did not die. Its pulse fell from 100 to 50. It was clear that the poison existed in less quantity in the viscera than in the vomited matters. In answering the objections derived from the action of putrefying substances, M. Tardieu referred to a paper by M. Reveil, now before the Academy, which the writer supposes to have established the fact, that, contrary to the observations of Orfila and other authors, no poisonous substance, such as the cyanide of ammonium, separable by solvents or distillation, is formed during putrefaction. It need scarcely be observed that such an unsupported assertion, derived from a document not in court, would not have been received as evidence in England.

After a long discussion between the experts for the prosecution and M. Hébert in reference to the extract from the soiled shavings, the latter limited his position to the following assertion:—"That the product had caused the death of the dog inoculated with it, but that the death was not such as digitaline would have produced; and that, instead of concluding digitaline was present in it, we ought logically to conclude that it was not."

An objection was also made to the evidence derived from the shavings of the floor on the ground that the apartment had been previously occupied by a photographer, and that some of the chemicals used in his business might have fallen and remained on the floor. The matters, examined, however, were found to have been recently spilt. The photographer had not occupied the apartment for three months previously. Analysis gave no evidence of a salt of silver or of any mineral substance, whilst such substances as the cyanide of potassium, which are used in photography, would have become long before decomposed.

The evidence of MM. Claude Bernard, Vulpian, Bouley, and Reynal was taken on the question raised by M. Hébert, whether, after poisoning by digitaline, the heart was contracted as asserted by the experts, or dilated as stated by M. Hébert. M. Claude Bernard stated, as the result of his experiments, that in the higher animals, when poisoned with digitaline, there is at first agitation, then, after some hours, death takes place suddenly, as if from syncope. A particular characteristic of poisoning by this substance is that immediately after death red arterialised blood continues to be poured into the left cavities of the heart, because respiration continues after the complete arrest of the cardiac pulsations. Death, therefore, occurs from the cessation of the heart's action, and at first the organ is dilated by the blood which continues to flow into its cavities. But cadaveric rigidity follows much more rapidly in the muscular structure of the heart than in the other muscles of the organism. Contraction of the ventricles, therefore, rapidly replaces the dilatation, and in the course of a very few minutes they empty themselves of the blood which has been poured into them. A quarter of an hour after death the state of contraction is clearly manifest, and the rigidity continues. In answer to questions put by M. Hébert, M. Claude Bernard said that there was nothing in the condition of the dog poisoned in the first experiment which appeared to him to contra-indicate the idea of poisoning by digitaline. But the experiment would have been more convincing had the autopsy been made a few minutes instead of two hours after death. In his experience there is often in poisoning by digitaline at first an acceleration of the heart's movements, but that finally retardation sets in, and continues to increase until complete arrest terminates life.

M. Vulpian's evidence referred to the effect of digitaline on frogs. He dissented from the statement of Stannius that digitaline did not affect batrachian reptiles. On the contrary, he found that the action of digitaline was most powerful on frogs. When injected under the skin it produced in a few minutes manifest changes in the movements of the heart; the auricles begin to contract somewhat irregularly, but the movements of the ventricle are especially affected, they contract with great irregularity, certain points of the ventricle appearing to escape the general movement; at the same time the pulsations become slower and slower, and after some minutes the heart becomes motionless. The ventricle stops first and remains empty, pale, and contracted, the auricles continue for a short time to act, but too feebly to force the blood into the ventricle; they remain fully dilated after the contraction of the ventricle. There is also this peculiarity observed, that even after the arrest of the heart's action the frog will continue to leap about with but little less vivacity than in the normal condition. There are several other poisons which act in the same way as digitaline when introduced under the skin of the frog; these are, the poison of the toad and of the aquatic salamander, *Upas antiar*, alcoholic extract of *Tanghinia venenifera*, and watery and alcoholic extracts of the *Veratrum viride*. M. Vulpian concluded by stating that he had tried other vegetable poisons and tannin, and had never observed analogous phenomena.

The experiments of MM. Bouley and Reynal had been made with digitaline on horses. They had never observed the cardiac ventricles contracted. On the contrary, the heart had always appeared flabby; but as the examinations were made five or six hours after death this might have been due to the commencement of putrefaction, which takes place much more quickly in herbivora than in carnivora, especially after death by the vegetable poisons.

The only other point to be noticed is that La Pommerais had endeavoured to explain the great diminution in the quantity of digitaline found in his possession by saying that he prescribed it externally as well as internally, and that besides furnishing it to his patients, he had distributed it to students who were his pupils. He said he had also sent a quantity to his brother-in-law, a chemist, in the country, who had the packet still in his possession. The packet was subsequently produced, and submitted to analysis by M. Roussin.

Analysis showed that if digitaline was present at all it was in infinitesimal proportions. The contents of the packet consisted of sugar of milk.

In concluding an article, the length of which is only justified by the scientific importance of the trial, we shall offer but few comments. As we have said, we believe the guilt of the prisoner was entirely proved, but we regard the evidence of the experts (we refer to their experiments) although confirmatory, and, on the whole, satisfactory of its kind, as the least portion of the proof against him. We should be sorry, in the present state of science, to see a conviction for murder on such evidence alone.

A writer in a French journal has criticised the report of MM. Tardieu and Roussin on the ground that it descended too deeply into minutiæ, and as, for instance, in noticing the contracted condition of the heart, invalidated their conclusions by raising points on which a critical defence could seize. We do not sympathise with the objection. If a man's life depend on a physiological experiment, for Heaven's sake let the minutest particulars be observed and noted, whether they weigh in the scale of guilt or innocence. A more valid criticism appears to us to have been that it would have been better to avoid experiments on animals so remote in the zoological scale from Man as rabbits and frogs. We are, however, most ready to confess that, considering the great difficulties under which the investigation was conducted, it was performed with surpassing skill and sagacity. We only wish that all the great Medico-legal inquiries which have taken place in this country were as creditable to British science. But whilst thus expressing our appreciation of the performances of the experts, we are bound to add that never were we more impressed with the superiority of English judicial proceedings than when reading the reports of this trial. The debates—we had almost said altercations—between the experts for the prosecution and defence would have been scarcely tolerated in an English Medical Society, much less in a court of justice; whilst the frequent interruptions, the loose reception of evidence, the attacks of the judge on the prisoner, and his mode of detracting from the value of the evidence offered by the defence, contrast most strongly with the order, the careful sifting of evidence, and the even-handed fairness which are the characteristic features of our own legal tribunals.

THE WEEK.

APPOINTMENT OF EXAMINER AT THE ARMY MEDICAL BOARD.

Mr. Paget, after holding the post of Examiner in Surgery to the East India Company, and then to the Army Medical Department for ten years, has been compelled by the increasing claims of private practice to resign the appointment. It has been with difficulty, indeed, that for two or three years he has found time to go through the serious labour entailed by the examination. The Secretary of State, at the suggestion of the Director-General, has appointed Mr. Prescott Hewett, of St. George's, who will prove a worthy successor to Mr. Paget. Mr. Hewett has declined some appointments of a similar kind, but we congratulate the Medical Department of the Army that he has consented to accept this important post.

PARLIAMENTARY.

On Thursday, May 19, the House of Commons reassembled after the Whitsuntide recess.

On Friday, May 20, Sir J. Pakington asked what causes had led to the war with the King of Ashantee; and whether there was any prospect of Her Majesty's troops being relieved from the destructive effects of that climate by a peaceful solution of that question. He wanted to know, he said, not only what were the causes, but what were the objects of the war. He described the destructive effects of the climate upon the negro as well as the European troops, and expressed a hope that the policy in which the war originated would be put a stop to.

Mr. Cardwell explained very fully the origin of the war, the preparations made for it, and the precautions taken for securing the health of the troops, the views of the Government in engaging in it, and the state of affairs up to the date of the last mail. He said that in conjunction with the War Office and the Horse Guards, he had taken measures for withdrawing our troops from the interior of the country, and placing the defence of the Prah in the hands of those native chiefs whose duty and interest it is to protect their own territories from hostile incursions. He added, "We also propose, as far as possible, to provide for the safety, health, and well-being of our troops on the Gold Coast; and though it is impossible to speak with any certainty as to unknown and unforseen occurrences, I entirely sympathise with the feeling that it is not our duty to make expeditions into the interior of such a climate as that of Africa. We have no desire whatever for any extension of territory; we have no wish to make wars of conquest or of vengeance; and as the rains have put an end to the late warlike preparations, so it is not our intention to renew them for the purpose of invading the territory of the King of Ashantee."

In the House of Lords on Monday, May 23, the Lord Chancellor moved the second reading of the County Courts Acts Amendment Bill.

Lord Brougham was of opinion that the Bill required amendment in Committee.

Lord St. Leonards said that this was a question of great social importance. By the existing law a debt was recoverable for a period of six years from the time of its contract, acknowledgment, or part payment, but the present Bill declared that no debt under £20 should be recoverable after the expiration of a year from the time of its being due. He saw no reason for this reduction of the term of six years to one year, and he was certainly of opinion that the period within which small debts might be recoverable ought not to be less than three years. In his opinion, the Bill was one which would have as wide an operation as it was possible to conceive, and, if passed into law, it might fairly be called a Bill for stopping the credit of the labouring classes. He strongly objected to county courts being turned into courts of equity.

Lord Chelmsford looked upon the Bill as involving a social question of the highest importance; it was a question which required the most cautious deliberation. He should not offer any opposition to the second reading of the Bill, but its future progress required to be watched very narrowly.

Lord Lyveden supported the Bill.

Lord Cranworth approved the material features of the Bill, and gave his cordial assent to the second reading.

The Bill was read a second time.

THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH ON THE STATE OF THE ARMY MEDICAL DEPARTMENT.

We publish with great pleasure the following memorial on the subject of the present condition of the Army Medical Department, addressed by the Royal College of Physicians of Edinburgh to Lord Palmerston. We hope that the other licensing and examining bodies will join with the Edinburgh College in pressing this matter on the attention of Government. The state of the Army Medical service is not only disgraceful to the authorities, but now absolutely injurious to the interests of the public:—

"To the Right Honourable Viscount Palmerston, First Lord of Her Majesty's Treasury,

"The Memorial of the Royal College of Physicians of Edinburgh, Humbly Sheweth,—

"That the Royal College of Physicians are charged with the licensing of Medical Practitioners, and are therefore bound to watch over the interests of the Medical Profession and of the public.

"That the attention of the College has been frequently drawn to the very unsatisfactory condition of the Medical Department of the Army; and that the evils often complained of have now become so aggravated that they consider themselves called upon, in the public interest, to bring the subject directly under your lordship's notice. Your memorialists would, therefore, beg respectfully to lay before your lordship the following statement of facts:—

"Previous to 1854 public attention had not been specially directed to the Medical Department of the Army; and though the officers of that Department considered that they laboured under various hardships, a sufficient supply of Medical men

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for the wants of the Service could always be obtained. On the outbreak of the Crimean war, it was soon discovered that there was a great deficiency of Medical officers; and this deficiency was subsequently the cause of a great amount of suffering among the troops. As it was found impossible to obtain a sufficient supply of regular Assistant-Surgeons, passed according to the requirements of the Army Medical Board, a number of civilians were engaged as Acting Assistant-Surgeons, to perform the duties of Commissioned Assistant-Surgeons. Notwithstanding, the Medical Department of the Army confessedly broke down, in consequence, not of the inefficiency of the officers, but of the smallness of their number.

"In 1856 a Select Committee of the House of Commons considered the whole subject, and recommended in their report that the pay of Assistant-Surgeons should be increased, and that means should be taken to make it unnecessary in future to have recourse to Civil Assistants.

"In 1857 a Royal Warrant was issued, which raised the pay of Assistant-Surgeons to ten shillings per day.

"In 1858 a new Royal Warrant for the Medical Department of the Army appeared, which was justly regarded as a great boon by the officers of that service. Among other important concessions, it was ordered that Medical officers should have a certain rank relative to combatant officers, and that this rank should carry with it all precedence and advantages, with the single exception that the presidency of courts-martial should always be held by combatant officers. The result of these concessions was, that an abundant supply of eligible candidates presented themselves, so that the authorities were enabled to raise the standard of examination and of qualification.

"Complaints, however, were soon made that the Warrant of 1858 was not fully carried out, and especially that the regulation with regard to relative rank was systematically violated.

"On the 28th of March, 1861, a new Warrant was issued, ordering that Assistant-Surgeons, promoted after that date, should rank with majors, but junior of that rank; this order being in direct contravention of the Warrant of 1858, which directed that Medical and combatant officers should rank according to the date of their commissions. At the same time, a reduction in the number of Assistant-Surgeons was made, whereby additional duties were thrown upon the rest, and it became very difficult for them to obtain leave of absence.

"In 1862, an order was issued, that Staff and Regimental Surgeons should, in their annual reports, answer a variety of questions with respect to the Assistant-Surgeons who had served under them during any part of the preceding year. Some of these questions were of such a nature that one Gentleman should not be called upon to answer them in regard to another. Thus, the Surgeon was required to state the character of his Assistant-Surgeon as to sobriety, correctness of general conduct, temper, and similar points. This was felt degrading to the character of Staff and Regimental Surgeons, as constituting them spies upon their juniors, whereby suspicion and distrust were necessarily engendered.

"In March, 1863, a new Warrant was issued, which restored, though not in its full integrity, the relative rank conceded by the Warrant of 1858.

"The effect of the changes which have been introduced since 1858 has been deplorable. Many Medical officers have resigned, and it has been found impossible to supply their place. For some time past the number of candidates at the competitive examinations has been much below the number of vacancies; and of these candidates a large proportion have been found grossly ignorant, and have been rejected, which clearly indicates that the Army is unpopular among that class of Medical men whose services it would be for the interest of the Department to secure. So difficult has it been to procure candidates, that the limit of age of entrance has been raised from twenty-five to thirty; and that lately the Director-General has advertised for acting Assistant-Surgeons, who are eligible up to the age of forty years, and who are to take the place on home service of Commissioned Assistant-Surgeons.

"Your memorialists, viewing with great anxiety this very unsatisfactory state of an important branch of her Majesty's service, would beg respectfully to urge upon your lordship the necessity for a reform of the following grievances, to which military Medical officers are subject:—

"First, in consequence of vacancies not having been filled up, promotion has become so slow that no Assistant-Surgeon now entering the service can expect to become a Surgeon in less than fifteen years.

"Second, in consequence of the deficient number of Medical officers in the army, it is with great difficulty that leave of absence can be obtained.

"Third, in consequence of the appointment for home service of Acting Assistant-Surgeons, the commissioned Assistant-Surgeons will be almost exclusively employed on foreign service, and will be deprived of their proper turn of serving in this country.

"Fourth, the system of confidential reports, of an inquisitorial character, is felt as a degradation, both by those who are required to draw them up, and by those to whose conduct they refer.

"Fifth, Medical officers are required to superintend the branding of deserters, and are thereby placed in a position which no Professional gentleman should be called upon to occupy.

"In name and by authority of
"The Royal College of Physicians,
"JOHN GRAHAM MACDONALD BURT,
"President.

"Edinburgh, 12th May, 1864."

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE XVII.—MARCH 10.

The anatomy of the Orang-utany continued.—The skull of the orang presents a less marked prominence of the supra-orbital ridge than that of the gorilla, and the bony crests are less developed, although in this respect there are considerable individual differences. As a general rule, though by no means without exception, the parietal bones unite with the great alæ of the sphenoid, as they do in man, but not in the gorilla and chimpanzee. The mastoid process, as in the other anthropoid apes, has scarcely any prominence downwards, though it is much developed laterally. The styloid process is more conspicuous than in the gorilla or the chimpanzee. A vertical section of the skull shows that the cranial cavity is higher, in proportion to its length than in the other great apes; but this approximation towards the human type is more than balanced by other characters of degradation. The olfactory fossa is narrow, and produced downwards and forwards, so that the cerebral hemispheres hardly cover the olfactory lobes in front. The junction of the presphenoid and the ethmoid are not covered by a process of the frontal, but the first-named bone has a different form from that of the human subject. There is a mere trace of the fossa in the petrosal bone, which, in the lower apes, lodges a process of the cerebellum. As in the other great apes, the condyles are situated further back than in man, in the fourth fifth of the base of the skull. The general contour of the face is more excavated than in the gorilla and chimpanzee, the nasal bones are flatter, the macrognathism and prognathism are carried to about the same extent. The sides of the palate are straight, and somewhat approximated posteriorly. The premaxillary suture persists to adult age, as in the gorilla. In the lower jaw there is an entire absence of any mental prominence. To sum up the cranial characters, though in a few points the orang approaches nearer to man than do the chimpanzee and gorilla, in the great majority it either remains on the same level with these animals, or departs further than they do from the human type. On the other hand, the hyoid bone presents a decidedly greater resemblance to that of man.

The dentition offers no very striking characters of difference from that of the other great apes. It has the human peculiarities of the proportionate size of the different incisors, and of the patterns on the upper and lower molars. In other respects it exhibits the ape characters, especially in the great size of the canines, the multiplication of the fangs of the premolars, and the slope of the anterior edge of the first inferior premolar. As to the order of succession, the second permanent molar, both above and below, appears always to be in use before the canine and before the outer incisor. There is one specimen in the College museum which shows the canine fully developed before the third molar, but whether this is an individual peculiarity or the rule, there is not sufficient evidence to show.

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The muscles of the orang have been dissected and described by Sandifort, Owen, Duvernoy, Church, and Professor Huxley. The account now given of them was confined to the anterior and posterior extremities, and they were grouped in the same way as had been done in the case of the chimpanzee and gorilla. 1. The muscles of the orang not commonly found in man are the levator claviculæ, dorso-epitrochlear, and scansorius. A most remarkable muscle belonging to this group was present in the specimen dissected by Professor Huxley, viz., an opponens hallucis, inserted into the middle third of the metatarsal bone of this hallux; this has not been described by other authors, nor, indeed, is there any trustworthy evidence of the existence of such a muscle in any of the Mammalia. 2. The muscles usually present in man, but not found in the orang, are the extensor primi internodii pollicis, and the peroneus tertius. 3. Muscles which differ essentially in their origin. The pectoralis major arises by two large slips leaving a considerable triangular interval between them. The soleus arises from the fibula alone. The flexor longus hallucis arises from the fibula, and from the outer condyle of the femur. This is a very remarkable circumstance, as the foot muscles scarcely ever arise from the upper bone of the limb, though an analogous arrangement is common in the upper extremity. The flexor brevis digitorum pedis has also a very singular origin by four heads, one from the calcaneum, giving the perforated tendon to the third digit, another from the sheath covering the long flexor tendons in the back of the leg, giving the tendon to the second digit, and the two others, furnishing the tendons of the fourth and fifth digits, arise from the tendon of the flexor communis in the sole of the foot. The dorsal interossei of the foot occupying the second space, change their origin so as to resemble the corresponding muscle in the hand. 4. Muscles which differ in their insertion. The extensor minimi digiti sends tendons to the fourth and fifth, and the extensor indicis to the second and third digits, so that every digit has a superficial and a deep extensor; this being the normal arrangement in many of the lower mammalia, is a mark of degradation in the orang's hand. It also shows that the extensor indicis and extensor minimi digiti, instead of being especially developed, as is sometimes stated, in the hand of man, are but fragments of a more extensive system of deep muscles found in the lower animals. The peroneus longus gives a slip to the fifth metatarsal bone, but the main part of the tendon has its usual insertion. In the hand the muscle corresponding to the flexor longus pollicis goes only to the index finger, and there is not even a rudiment of a tendon to the pollex; this arrangement appears to be peculiar to the orang among the apes. The great flexors of the toes are distributed as follows:—The flexor digitorum gives tendons to the second and fifth digits, and the flexor hallucis to the third and fourth; there is no connexion between them, except such as arises from the intervening loose cellular tissue and the origin of the lumbricalis muscles. There is no long flexor tendon to the hallux, and there is usually no flexor accessorius. 5. Muscles which differ from that of man by their subdivision. The biceps of the thigh is altogether divided into two muscles. The division of the extensor ossis metacarpi pollicis and the tibialis anticus is not carried so far as in the chimpanzee. The interossei of the hands are double muscles, as distinctly as in the other anthropoid apes, while those in the foot are single. The abductor hallucis is very complex in its origin. The transversus pedis is distinctly represented, arising from the heads of the second and third metatarsal bones. It is thus seen that in its myology generally the orang recedes farther than the previously-described great apes from man, for it possesses all the characters by which they deviated from him, and many others special to itself, or found also among the lower mammals. It is, indeed, hardly too much to say that in the arrangement of its muscles the orang differs as much from the chimpanzee as the latter does from man.

The larynx of the orang possesses all the cartilages, ligaments, and muscles found in the same organ in man, but with certain differences of detail. The enormous development of the laryngeal sacculus in the adult animal has been carefully described by Sandifort. It is larger even than in the gorilla, and consists of a great median bag, covered by a strong layer of muscular fibres from the platysma, and sending cœcal prolongations backwards beneath the trapezius muscle as far as the occiput, beneath the scapula, and into the axilla. The walls of the sac are abundantly supplied with blood-vessels, and have numerous branches of the superior laryngeal nerve ramifying upon them. Its cavity communicates by two distinct canals with both ventricles of the larynx. In the young ourang there are two small distinct sacs, which coalesce in the middle line as growth advances. The suggestion of Sandifort that this large reservoir of air assists to prolong the loud roar of the animal is not consistent with the fact of its opening into the air passages being above the situation of the vocal cords.

FROM ABROAD—INSANE COLONIES IN FRANCE—PROLONGATION OF ANÆSTHESIA BY MORPHIA—EXCISION OF THE KNEE FOR GUNSHOT WOUND.

We have heard much of the advantages and disadvantages of the insane colonies so long established at Gheel; and it seems that the French Government has resolved to introduce the system. The Council-General of the Rhone has recently, with the approval of the Minister of the Interior, voted the funds necessary for placing out among families one hundred indigent insane persons whose mental condition does not necessitate their sequestration in an asylum. Upon the recommendation of the chief Physician, the indigent insane, recognised as incurable and inoffensive, are to be removed from the Antiquaille Asylum, at present overcrowded with patients, and placed out. "Without doubt," observes M. Garnier, in the *Union Médicale*, "this example will become promptly contagious; and this will be much to be commended, providing that there be constituted a Medical and administrative inspection of these patients as in the case of foundlings. Unable to restore their moral health to these poor creatures, we can at least provide for their physical well-being by this family regimen, life in the open air and varied labours, which are more likely to conduce to it than the residence in an asylum. For the safety of the families concerned and the success of the experiment, care must be taken that the persons selected are both incurable and harmless."

The Versailles Medical Society has been continuing its interesting researches (*Med. Times and Gaz.*, March 5) upon the subcutaneous injection of morphia during anæsthesia produced by chloroform. The animals submitted to the simultaneous action of the two agents have always exhibited a duration of insensibility proportionate to the quantity of morphia injected. In the last experiment performed, five centigrammes of morphia being employed, complete insensibility continued during three hours. The same dose injected, without chloroform having been employed, produced for a few minutes complete torpor and insensibility; but at the end of this time sensibility to pain returned completely. The conclusions from the whole series of experiments are—1. That salts of morphia, in doses of from five to ten centigrammes, injected alone produce a kind of intoxication which may go on to torpor, but do not give rise to insensibility, properly so called. The effect is not durable, and in a few minutes the animal returns to its normal condition. 2. Salts of morphia injected during anæsthesia produced by chloroform possess the singular property of prolonging the duration of the anæsthesia in proportion to the amount of morphia employed. 3. That this property may be turned to use without danger in man when the duration of an operation gives rise to fears of continuing the anæsthesia by means of chloroform.

M. Verneuil related to the Society of Surgery two successful cases of excision for gunshot wound of the knee, with the view of eliciting opinions whether this operation should not

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be, as a general rule, substituted for amputation of the thigh. M. Legouest, of the Val-de-Grace, observed that, while adopting this substitution as a principle, he feels obliged to reject its application in military Surgery on the field of battle. Statistics have sufficiently proved that excision is a less fatal operation than amputation, and that generally useful limbs result. M. Verneuil explains the less fatality attending excisions by considering the shattered extremities of the bones as mere foreign bodies which are removed by this operation; but we must look further than this for the explanation. It is found in the fact that in excision the medullary canal is rarely opened, and the vessels and nerves are uninjured, whence the rarity of osteo-myelitis, phlebitis, and purulent infection, which carry off so large a number of the subjects of amputation. While admitting all the superiority of excision in civil practice, the military Surgeon still finds himself obliged to reject it, the chief ground being the far greater facility with which patients who have undergone amputation are transported. After excision a much more complicated apparatus, together with elaborate and frequent dressings, are required; and, as a much longer time is required for cure than after amputation, the patient is exposed for a longer period to all the anti-hygienic condition of military Hospitals. M. Legouest is no opponent to excision, and would be glad if it could be adopted in active military practice; but with the experience derived from the Schleswig-Holstein, Crimean, and Indian wars, he has little expectation of success following its adoption. M. Giraldes observed that the gunshot wounds received on the field of battle are very different from those which occur in civil life. The ravages which they produce are far more severe and deep-seated, while the injury sometimes extends far beyond the articular surfaces themselves. Moreover, excision of the knee performed under any circumstances, is a more serious operation than it has sometimes been stated to be; and is, in fact, as fatal as amputation of the thigh, if we do not include partial excisions, the removal of fragments, etc. M. Larrey, like M. Legouest, admits the principle of resection, but regards its application in military Surgery to be surrounded with so many difficulties as to render its performance quite exceptional. The injuries caused by modern projectiles are of so aggravated a character that amputation usually remains the sole alternative. Then there is the difficulty of transporting patients who have undergone resection, and supposing this overcome, there are numerous inconveniences and accidents attendant upon this operation which are coped with with far greater difficulty than in the case of amputation. And even supposing the patient triumphs over these, he is still exposed to ulterior accidents, which are by no means of rare occurrence after excision, such as defective consolidation, deformity, and shortening of the limb. M. Verneuil is only enabled to speak practically as regards these two cases, and he is not aware of more than ten cases of excision of the knee for gunshot wound being on record. Fortified by his own success, then, he strongly recommends the more frequent trial of the operation, and although in military Surgery there must be numerous cases in which it cannot be applicable; he believes that there are others in which, owing to the more simple nature of the wound and other circumstances, it may be advantageously performed. M. Broca protested against the abuse of statistics in comparing and estimating the various operations, the locality where they are performed being the point of greatest importance. Thus, while in Paris almost every amputation of the thigh terminates fatally, in the country a fatal result is the exception. The true test of the superiority of excision would be its performance in Paris; but, in fact, M. Verneuil's cases are no proof of this, as amputations of the thigh would also have succeeded under the same circumstances.

TOWNLEY'S case bears some analogy to that of Mrs. Real, of this city, who, in 1862, killed her alleged husband, on a breach of good faith and suspicion of inconstancy. The public, and especially its most sensitive part, was at that time much interested in the final result of the trial of that poor girl. Still a just verdict and a merciful punishment vindicated the public morals. Since her trial, the alleged insanity of Mrs. Real has vanished, and probably repentance has also purified her mind and will.—*Am. Med. Times.*

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF THE POTTERIES.

FROM the North Staffordshire Infirmary, the history of which was given at length in last week's *Medical Times and Gazette*, we may pass to-day to consider, in conclusion, certain general facts relating to the district, and which are of Medical and scientific interest.

MEDICAL SOCIETIES.

There is a Medical Society in the district known as the North Staffordshire Medical Society. The society is small, but very active; it has been in existence for twelve years, and increases with its life. The members meet for business purposes on the second Thursdays of every other month in Stoke-on-Trent, and on the second Thursday in November they have a general meeting for the election of officers. At the ordinary meetings papers are read and discussed, specimens are exhibited, and cases are related. At the present time Mr. Folker is president, Mr. Yates, of Newcastle, is honorary treasurer, and Mr. R. Goodall, of Silverdale, is honorary secretary of the Society.

In addition to this society there is a Book Society, which is considered of great value as a means for disseminating new Medical works and the various Medical periodicals throughout the district.

Microscopical meetings are occasionally held at the Infirmary, and clinical lectures are sometimes delivered.

PAROCHIAL MEDICAL PRACTICE.

Parochial Medical Practice in the Potteries and Newcastle is largely divided; there are three districts, each including a union workhouse and several sub-districts. The whole may be tabulated as follows:—

Newcastle.

	Population.	Acreage.	Annual Fees.
Mr. Yates' District (Newcastle)	15,640	8,640	£40 0 0
Dr. Vernon's District (Audley)	7,625	11,102	25 0 0
Dr. Barnes' District (Whitmore)	1,302	7,572	15 0 0
Mr. Yates (Workhouse)	142	—	30 0 0

Stoke-upon-Trent.

	Population.	Acreage.	Annual Fees.
Mr. Ashwell's District (Stoke)	11,885	5,050	£25 0 0
Mr. W. H. Davis's District (Bucknall)	12,469	4,235	15 0 0
Extras			80 0 0
Mr. Folker's District (Hanley)	1,681	492	27 0 0
Extras			3 0 0
Dr. Goddard's District (Fenton)	7,993	2,193	15 0 0
Extras			51 0 0
Mr. J. B. Davis's District (Shelton)	18,331	1,034	33 0 0
Mr. Garner (Workhouse)			26 10 6

Wolstanton and Burslem.

	Population.	Acreage.	Annual Fees.
Mr. Morris's District (Burslem, N.-East)	9,203	1,875	£40 0 0
Mr. Goddard's District (Burslem, S.-West)	13,124	937	40 0 0
Mr. Davenport's District (Tunstall, with the Workhouse)	22,466	5,140	125 0 0
Mr. Alcock's District (Wolstanton)	9,563	5,240	30 0 0

It will be seen from the above that the payments to the parochial Medical officers are exceedingly small.

THE WORKHOUSE, NEWCASTLE.

The Workhouse at Newcastle-under-Lyme is situated at the south south-west part of the town, and at some distance from the town. It is a handsome building of brick, and is nominally constructed for the reception of 350 inmates. The average number is 142. The water supply of the house is from a well; the water is pumped into a cistern at the upper part of the building by hand labour, and thence it is distributed over the house and flushes all the closets. The sewage of the house is conveyed, flushed by the water, through culverts into a tank, from which it is drained off into two adjoining fields, that lie at a lower level, and there it is utilised. The greater part of the sewage is given away to the owner of the fields—all, indeed, except a small portion which is employed to fertilise a little piece of land belonging to the house.

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The ventilation of the house is conducted on the natural plan, and is well secured. In some instances there are openings in or near the ceilings, but window ventilation and openings into the corridors form the principal means for the admission of air. The wards are beautifully clean and comfortable, and the contrast between this workhouse and the other workhouses of Staffordshire which I had visited was so striking, it was difficult to believe, by the comparison, that this could be a workhouse. The repulsiveness of the workhouse system was here actually relieved; the house was quite equal to any model gaol, and the excellent master, who evidently was conscious of the superiority of his establishment, was as anxious to show the various improvements and comforts as he was naturally proud of them.

The greatest fault is the limitation of cubic space. I calculate that with the present occupation the space of air for each person does not exceed three hundred cubic feet. Against this must be set off the effectiveness of the ventilation and the fact that the patients during the day are not much in the wards.

The school-rooms are commodious, large, warm, and well ventilated, and the children were exceedingly healthy in appearance. The diet of the house is modified from the regulation standard by the addition of a double quantity of rice and an increase in the quantity of soup and potatoes. The aged and infirm, at the discretion of the guardians, are allowed, in lieu of porridge, for breakfast one pint of tea daily, and five ounces of butter, and seven ounces of sugar per week. Children under nine years of age are dieted at discretion; and above five years, whether they are boys or girls, they are classed with the women.

For the sick a distinct diet table has been drawn up by the very able Medical officer, Mr. Yates. As all these Medical dietaries are of great importance now that the whole question of dietaries is under discussion, I subjoin Mr. Yates's table:—

NEWCASTLE-UNDER-LYME UNION.

Dietary for Sick Paupers.

Full Diet.

	Breakfast.			Dinner.			Supper.		
	Bread.	Butter.	Tea or Coffee.	Cooked Beef or Mutton.	Bread.	Potatoes.	Bread.	Butter.	Tea or Coffee.
	oz.	oz.	pints.	oz.	oz.	lb.	oz.	oz.	pints.
Males . .	7	½	1	4	7 or 2	with 1	7	½	1
Females .	7	½	1	4	7 or 2	with 1	7	½	1

Low Diet.

	Breakfast.			Dinner.			Supper.		
	Bread.	Butter.	Tea, Coffee, or Milk.	Bread.	Broth.	Pudding.	Bread.	Butter.	Tea, Coffee, or Milk.
	oz.	oz.	pints.	oz.	pints.	oz.	oz.	oz.	pints.
Males . .	4	½	1	2	1½	16	4	½	1
Females .	4	½	1	2	1½	16	4	½	1

Fever Diet.

	Breakfast.			Dinner.			Supper.		
	Bread or Dry Toast.	Tea or Coffee.		Bread or Dry Toast.	Tea or Coffee.		Bread or Dry Toast.	Tea or Coffee.	
	oz.	pints.		oz.	pints.		oz.	pints.	
Males . .	4	1	—	4	1	—	4	1	—
Females .	4	1	—	4	1	—	4	1	—

Milk Diet.

	Breakfast.			Dinner.			Supper.		
	Milk.	Bread.		Milk.	Bread.	Pudding.	Milk.	Bread.	
	pints.	oz.		pints.	oz.	oz.	pints.	oz.	
Males . .	1	4	—	1	4	12	1	4	—
Females .	1	4	—	1	4	12	1	4	—

N.B.—Toast-and-water, barley-water, and linseed tea, as required.

The sanitary condition of the workhouse is satisfactory, and the number of cases of epidemic disease is small. It is also rare for any epidemic to spread in the Institution; in fact, no epidemic diseases have ever prevailed. Skin affections are almost unknown, with the exception of scabies, which is occasionally introduced from without.

CASE IN WHICH THE BRAIN IS EXPOSED.

Amongst the sick of this workhouse, Mr. Yates has under his care a well-built man, aged 36 years, who, from disease of the bones of the head, arising from syphilis (two attacks), has lost a large portion of the parietal bone on the left side. A portion of brain, of nearly one inch and three-quarters in diameter, is thus laid bare, and the membranes are also destroyed; the cerebral surface is covered only with a thin, yellow, false membrane, almost like a waxy secretion. The pulsation of the vessels of the brain is immediately under the eye. The man suffered the second time from syphilis six years ago. A few months later he had several fits of an epileptiform character. Two months after the first fit he perceived a swelling on the head, which was laid open. His friends reported that after this he "lost his senses," and did not recover them for several months. Two years since there was an open wound on the left side of the head, and a piece of bone came away, in one piece, from the upper part of the left parietal. Another piece exfoliated from the outer table of the frontal bone, and the septum of the nose and part of the roof of the mouth gave way. A little pus is daily discharged from the opening in the skull, and occasionally, but very rarely, the man has epileptic fits; he is dull, heavy, and at times much disposed to sleep. When he is excited, as by sharp walking, the pulsation in the brain is very much increased; but when he is at rest and drowsy, it is less perceptible. The brain surface appears to be entirely devoid of sensation, but if it is gently touched, with slight motion, systemic symptoms are immediately presented. The symptoms first show themselves at the stomach, the patient feels nauseated, and has a sensation of sinking and depression. The action of the pulse, too, is modified, the number of pulsations being reduced.

It has been observed in other cases where the brain has been exposed that the movements of inspiration and expiration are to be seen in the brain. This fact, which was noticed by the great Haller, was at one time thought to show, and even to prove, that the blood in passing through the lungs is impeded slightly during expiration, and that this impediment, reflected throughout all the viscera, gives rise to what has been termed the visceral respiratory pulse. In this case of Mr. Yates' I could not satisfy myself as to the existence of a respiratory pulsation, although I could readily see the pulsation that was synchronous with the beat of the heart. Perhaps I made too brief an observation in reference to the respiratory pulse; if so, and if I am in error, I hope my friend Mr. Yates, who is much interested in the progress of the case, will put me right. Physiologically, this case shows that the circulation through the brain may take place in a sufficiently active degree to sustain life, although the brain itself is directly subjected to the pressure of the atmosphere. In this sense it exhibits phenomena which are of interest in reference to the theory of Dr. Kellie that the quantity of blood in the brain must always be the same, and to the researches of Dr. Burrows, which go to show that while the quantity of blood in the brain is nearly equally the same, variations may occur. Unquestionably in this instance variations do occur in the circulation, and the question is, whether these are determined by the fact that the cranium is open, or whether they would be manifested as certainly as if the cranium were sealed up. From what I could hear of the man, I should almost infer that the atmospheric pressure on the brain did, in truth, disturb the circulation through it, but here a series of observations are required, in which the condition of the man in regard to sleepfulness, oppression, and condition of the pulse should be recorded side by side with the variations in the barometric scale.

A NEW FORM OF BEDDING.

I must not linger longer over the narrative of this Workhouse except to note a very useful form of bedding that has been introduced here by Mr. Fox, the master. Some ordinary woven cocoa-nut bedding having come into the house, Mr. Fox had some of it that had been used picked into loose fibre, and with this stuffed several ticks. The experiment succeeded excellently, the beds were soft, warm, and as cheap in the end as straw. After a time the fibre becomes matted somewhat, but it is a very slight task to take it out of the tick and pull it over again. In addition to its other properties the teazed fibre bed has the advantage that the fibre may be scalded,

washed, and dried with the greatest rapidity. For the purposes of Hospitals and asylums this little practical fact is of much value, for the bed being very warm is most comfortable to the aged and weak, is clean, and always ready to be disinfected by heat and to be re-made.

A Hot-air Bath Required.

To make this well-conducted workhouse quite perfect, a hot-air or Turkish bath is required. The advantages of this in cleanliness, and in the treatment of various diseases I have already spoken of, in describing the workhouse at Lynn, where the bath has been a great boon. The expense of erecting this bath is so slight, as compared with its advantages, that the active Board of Guardians of the Newcastle Workhouse will not be offended with me, I am sure, for suggesting its addition to their establishment.

The Workhouse at Stoke.

The workhouse at Stoke-on-Trent is commonly known as the "Spittals." It is built on the site of what is said to have been an old Hospital or Lazar-house, probably dedicated to a St. Loyes. The house is situated two miles and a-half from any of the towns of the district. At present it holds 380 inmates. Except for the distance, the site is good, and as the building is on high ground, with a fine, open prospect, the air is fresh and pure. The drainage of the house is complete and effective, and the water supply is pretty good. The water is derived from wells and surface springs, and is forced into all parts of the building. In its return it flushes the sewers. There are baths in the house, which are supplied with both hot and cold water. The ventilation is on the natural system, and is in good order. The schoolrooms are too crowded—a fact that is acknowledged, and is promised to be amended; indeed, it is almost settled that there shall be new schoolrooms built, so as to separate the children altogether from the adults. The children have a field for playing in, and a drum and fife band; they are also trained to work, the boys in a field, the girls in the laundry.

The clothing of the inmates is indifferent: the barracan is thin and cold after washing, and the appearance of the dress is uncomfortable, even to the looker-on. The dining-room, which answers for the purpose of a chapel, is very cheerless. The time of the adult men is also indifferently occupied, for they have little out-door labour; and indoors the unprofitable and nasty work of picking oakum is the one pursuit.

As a whole, the general sanitary appearance of the workhouse is not favourable in contrast with the workhouse at Newcastle; but Mr. Garner informs me that the result of operations in the house is extremely good, deaths being rare after any operation, however severe.

The diet consists of three scales—ordinary diet, diet for infants and for women during confinement, and diet for the sick. The aged and infirm are allowed extras, and tobacco is allowed to all over 60 if it is asked for. The diet for infants runs as follows:—

Sucking infants, in case of insufficiency of mothers' milk, are allowed—Under six months old, one pint of cow's milk per day; over six months, and under one year, one pint of milk, with 1½ oz. of sago. Infants not having the breast—Under four months, one quart of milk per day; infants over four months, and under one year, one quart of milk, with 3 oz. sago (the milk to be warmed by the addition of hot water, and sweetened, and given from the bottle). Infants over one year, and under two years, whether nursed or weaned—Morning: Half-pint of milk porridge, with 3 oz. of bread. Dinner: 6 oz. rice pudding, or 4 oz. potatoes, with half-pint of broth. Evening: Half-pint of milk, with 3 oz. of bread. In cases of sickness, to have arrowroot. Nursing mothers labouring under debility to be allowed half a pint of ale per day.

Sick Dietary.

Ordinary Diet of Paupers in the House.

Full Diet.

Breakfast:	Dinner:	Supper:
7½ oz. bread and butter 1 pint of tea or coffee.	4oz. cooked beef or mutton without bone 7 oz. bread, or 2 oz. bread and 1 lb. potatoes.	Same as breakfast.

Low Diet.

Breakfast:	Dinner:	Supper:
6½ oz. bread and butter 1 pint of tea or coffee.	6 oz. bread, and 1½ pints of broth four days 1 lb. milk puddings three days.	Same as breakfast.

Fever Diet (rarely used).

Breakfast:	Dinner:	Supper:
4 oz. bread 1½ pint of milk porridge, or 1 pint of tea.	4 oz. bread 1½ pint of milk porridge.	Same as breakfast.

On the 2nd of April, 1864, the number of patients in the Workhouse Infirmary was ninety-five; of these, fifty-one were allowed extras, consisting principally of spirits, wine, ale, arrowroot, milk, eggs, sago, and tobacco. The women in Staffordshire are much addicted to smoking, and are allowed tobacco like the men.

Lunatics.—About a dozen harmless imbeciles live in the Workhouse. Wards for about half a dozen who are down at the Hospital are contracted for to be enlarged and improved. The male lunatics have a spacious yard, the females have a garden for exercise.

Between sixty and seventy lunatics are in Asylums, and are paid for by the parish. Most of these are incurable or harmless, and one-half are said by the Medical director of the Stafford County Asylum, Dr. Bower, to be removable with safety to wherever they would be taken care of and treated well. It is proposed in this parish to have them, and to build a separate suite of wards for them.

For some years such cases have been *forced* into Asylums, till the burden on the parishes has become very great. It amounts to £1400 or £1500 per annum in Stoke. Hence the apparent great increase in pauper lunatics, and the want of Asylums.

CLUB PRACTICE.

Club Medical practice is rather extensively carried on, the payment to the Medical men being miserably low. Two shillings per head per annum is perhaps the average. The principal clubs are,—an Agricultural Club at Keele, a Ground Club at Silverdale, and in and about Newcastle various clubs of Foresters, Gardeners, and Odd Fellows.

SANITARY CONDITION OF THE POTTERIES.

The districts to which reference is made in this paper are those of Newcastle, with a population of 24,567; Wolstanton, with a population of 54,356; and Stoke-upon-Trent, with a population of 71,308.

Value of Life.

The Registrar-General's new returns, to which attention has so often been drawn in previous papers, give us the following facts as to the value of life at different ages in the districts of Newcastle-under-Lyme and Stoke-upon-Trent. Wolstanton is not specially included, but Cheadle, a large parish in the neighbourhood, is given. I have, therefore, added Cheadle to the list:—

Average Annual Rate of Mortality in Newcastle-under-Lyme from all Causes, at Different Ages, to 100 *Living, during the Ten Years* 1851-60.

	Males.	Females.
All ages	2·290	2·251
Under five	8·040	6·473
Five to ten	1·021	·925
Ten to fifteen	·526	·552
Fifteen to twenty	·712	·829
Twenty to twenty-five	·787	1·048
Twenty-five to thirty-five	·807	1·078
Thirty-five to forty-five	1·018	1·381
Forty-five to fifty-five	1·490	1·568
Fifty-five to sixty-five	2·960	2·829
Sixty-five to seventy-five	6·645	6·180
Seventy-five to eighty-five	13·981	14·583
Eighty-five and upwards	30·909	36·667

Average Annual Rate of Mortality in Stoke-upon-Trent from all Causes, at Different Ages, to 100 *Living, during the Ten Years* 1851-60.

	Males.	Females.
All ages	2·789	2·454
Under five	9·913	8·489
Five to ten	1·084	·961
Ten to fifteen	·571	·498
Fifteen to twenty	·788	·821
Twenty to twenty-five	·931	·925
Twenty-five to thirty-five	1·014	1·028
Thirty-five to forty-five	1·523	1·375
Forty-five to fifty-five	2·724	1·694
Fifty-five to sixty-five	4·272	3·181
Sixty-five to seventy-five	8·925	7·137
Seventy-five to eighty-five	17·673	17·285
Eighty-five and upwards	30·870	31·875

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Average Annual Rate of Mortality in Cheadle from all Causes, at Different Ages, to 100 Living, during the Ten Years 1851-60.

	Males.	Females.
All ages	2·134	2·020
Under five	5·853	4·632
Five to ten	·760	·752
Ten to fifteen	·486	·714
Fifteen to twenty	·742	·850
Twenty to twenty-five	·975	1·194
Twenty-five to thirty-five	·825	·967
Thirty-five to forty-five	1·184	1·276
Forty-five to fifty-five	1·667	1·139
Fifty-five to sixty-five	2·696	2·513
Sixty-five to seventy-five	5·683	4·757
Seventy-five to eighty-five	16·250	14·932
Eighty-five and upwards	22·857	34·118

The value of life in Newcastle, as compared with all England, is 4541 in Newcastle against 4437; for Stoke-upon-Trent it stands as 5243 against 4437, and for Cheadle 4154 against 4437. The increase of mortality is most marked in childhood, the mortality of children under five years of age being 14·513 per cent. in Newcastle against 13·517 for England; 18·402 per cent. in Stoke against 13·517 for England, and 18·402 per cent. in Cheadle against 13·517 for England altogether.

Mortality from Different Causes.

The average annual rate of mortality in the Newcastle district is 23, or 2 under the average of Staffordshire as a whole; in Wolstanton it is 26, or 1 above the average; in Stoke-upon-Trent it is also 26. Taking the pottery towns altogether, they represent a fair average of the mortality of Staffordshire.

Average Annual Mortality in Newcastle-under-Lyme from Different Causes, to 100 Living, from 1851 to 1860.(a)

	Males.	Females.
All causes	2·290	2·251
Typhus	·077	·088
Cholera, diarrhœa, and dysentery	·058	·071
Other zymotic diseases	·312	·313
Cancer	·014	·033
Phthisis	·217	·351
Scrofula, tabes mesenterica, and hydrocephalus	·090	·065
Disease of brain	·400	·315
Disease of heart and dropsy	·119	·121
Disease of lungs	·331	·270
Diseases of stomach and liver	·082	·073
Diseases of kidneys	·024	·004
Violent deaths	·120	·033
Other causes	·446	·514

Average Annual Mortality in Stoke-upon-Trent from Different Causes, to 100 Living, from 1851 to 1860.

	Males.	Females.
All causes	2·789	2·454
Typhus	·087	·096
Cholera, diarrhœa, and dysentery	·126	·124
Other zymotic diseases	·390	·397
Cancer	·016	·027
Phthisis	·306	·315
Scrofula, tabes mesenterica, and hydrocephalus	·116	·079
Disease of brain	·443	·331
Disease of heart and dropsy	·116	·130
Disease of lungs	·469	·324
Diseases of stomach and liver	·092	·106
Diseases of kidneys	·024	·011
Violent deaths	·161	·040
Other causes	·443	·474

Average Annual Mortality in Cheadle from Different Causes to 100 Living, from 1851 to 1860.

	Males.	Females.
All causes	2·134	2·020
Typhus	·047	·050
Cholera, diarrhœa, and dysentery	·063	·051
Other zymotic diseases	·255	·267
Cancer	·031	·040
Phthisis	·247	·300
Scrofula, tabes mesenterica, and hydrocephalus	·087	·093
Disease of brain	·326	·262
Disease of heart and dropsy	·141	·118
Disease of lungs	·290	·224
Diseases of stomach and liver	·113	·124
Diseases of kidneys	·024	·005
Violent deaths	·131	·038
Other causes	·379	·448

(a) This includes the district as well as the town. See Registration Districts, *Medical Times and Gazette*, p. 519, May 7.

Deaths at Different Ages.—Year 1861.

Newcastle-under-Lyme.

Ages.	Males.	Females.
Total deaths	244	228
Under one year	74	47
Under five years	96	80
From ten to fifteen years	8	6
,, twenty to twenty-five years	13	12
,, twenty-five to thirty-five years	23	22
,, thirty-five to forty-five years	21	22
,, forty-five to fifty-five years	19	13
,, fifty-five to sixty-five years	16	19
,, sixty-five to seventy-five years	20	18
,, seventy-five to eighty-five years	12	14
,, eighty-five to ninety-five years	3	6

Wolstanton.

Ages.	Males.	Females.
Total deaths	617	542
Under one year	253	172
Under five years	330	258
From ten to fifteen years	9	17
,, twenty to twenty-five years	20	22
,, twenty-five to thirty-five years	36	44
,, thirty-five to forty-five years	41	35
,, forty-five to fifty-five years	43	36
,, fifty-five to sixty-five years	35	39
,, sixty-five to seventy-five years	36	39
,, seventy-five to eighty-five years	33	19
,, eighty-five to ninety-five years	3	2

Stoke-upon-Trent.

Ages.	Males.	Females.
Total deaths	819	736
Under one year	271	225
Under five years	415	364
From ten to fifteen years	12	15
,, twenty to twenty-five years	30	34
,, twenty-five to thirty-five years	45	42
,, thirty-five to forty-five years	66	32
,, forty-five to fifty-five years	61	47
,, fifty-five to sixty-five years	56	43
,, sixty-five to seventy-five years	49	51
,, seventy-five to eighty-five years	36	43
,, eighty-five to ninety-five years	4	8

Cheadle.

Ages.	Males.	Females.
Total deaths	210	196
Under one year	50	39
Under five years	75	73
From ten to fifteen years	3	5
,, twenty to twenty-five years	10	5
,, twenty-five to thirty-five years	15	12
,, thirty-five to forty-five years	14	16
,, forty-five to fifty-five years	11	11
,, fifty-five to sixty-five years	12	14
,, sixty-five to seventy-five years	27	23
,, seventy-five to eighty-five years	23	18
,, eighty-five to ninety-five years	5	6

Births Compared with Deaths of Males and Females, 1861.

Newcastle-under-Lyme.

Males.—Births, 474; deaths, 244; births over deaths, 230. *Females.*—Births, 444; deaths, 228; births over deaths, 216. Total births, 918; total deaths, 472; total births over deaths, 446.

Walstanton.

Males.—Births, 1261; deaths, 617; births over deaths, 644. *Females.*—Births, 1193; deaths, 542; births over deaths, 651. Total births, 2454; total deaths, 1159; total births over deaths, 1295.

Stoke-upon-Trent.

Males.—Births, 1436; deaths, 819; births over deaths, 617. *Females.*—Births, 1478; deaths, 736; births over deaths, 742. Total births, 2914; total deaths, 1555; total births over deaths, 1359.

Cheadle.

Males.—Births, 362; deaths, 210; births over deaths, 152. *Females.*—Births, 387; deaths, 196; births over deaths, 191. Total births, 749; total deaths, 406; total births over deaths, 343.

As regards the mortality of a portion of this district, with a special reference to that caused by pulmonary disease and consumption, some recent important inquiries have been made by Dr. Arlidge, abstracts of which he has been kind enough to place at my disposal. Dr. Arlidge calculates "that the present mortality of Stoke parish—including Henley, Shelton, Stoke, Fenton, and Longton, with a population of 71,308—is equal to an excess over that in England of 0·79—*e.i.*, nearly 8 persons die in every 1000 living, in excess, annually. Relatively to the population of the parish, this is equal to an annual loss of life of 560 individuals.

The relative mortality of males to females is as 3·15 per cent. for the former, and 2·75 for the latter sex. Of equal numbers living the ratio is 114 to 100 in Stoke, whilst in England it is 108 to 110—a fact indicating a great destruction of male life.

Below the 20th year the deaths to every 100 living equal 4·00 for males and 3·64 for females; above the 20th year they equal 2·37 for males and 1·96 for females.

A table of the mortality of different ages relatively to the whole number living at those ages shows that 25·27 *per cent. die in the first year* of their existence, and that the deaths under 5 years of age equal nearly one-third of the whole population under five living.

A table of the proportion of deaths to the whole number of deaths shows that *more than one-half*, viz., 52·86 per cent., of the whole number *of deaths* occurred among children *under five years of age*. The deaths under 1 year old equal 29·23 of the whole mortality; those at 1 year and under 5 equal 23·63 per cent.

Causes of Death.—Of 2107 deaths 649, or 30·79 of the whole number, were assigned to diseases of the lungs and consumption.

Of the 2107 deaths, 1194 occurred among children under 10 years old; among these lung diseases and phthisis produced 22·60 per cent. of the mortality; whereas of the 913 deaths among those 10 years old and upwards, those diseases produced 41·52 per cent. Among males singly the proportion was 42·25 per cent.

Of children under 10 years, convulsions destroyed 24·28 per cent.; marasmus, debility, etc., 15·24 per cent.; and zymotic diseases, 25·20 per cent.

Of those who died under 1 year 30·73 per cent. perished from convulsions.

Relatively to the whole *population living* in Stoke, 9·10 per 1000 died from lung diseases and consumption together, the average for England being 5·844 per 1000 living.

The deaths in Stoke relatively to the *whole mortality* were from lung diseases and phthisis, 307,900 per million, compared with 270,293 deaths per million in England."

WATER SUPPLY.

The water supply of the Potteries is derived mainly from wells, but in Newcastle there is a water company. Taking it altogether, the supply of water is good throughout the district, and the water generally is not hard, but the number of sources of supply are too numerous to allow of my giving any analyses that would be considered satisfactory.

DRAINAGE.

The drainage of the various Pottery towns is as yet but little attended to in a scientific point of view. Surface drainage is common, and open cesspools. Scarcely any of the towns are situated indifferently for drainage, and the flow in no case is, as far as I remember, naturally prevented. There can be no doubt that a very effective system of drainage, ensuring the collection of all the sewage, could be carried out. The sewage, up to the present time, is not utilised, except, perhaps, in a few special cases, where it is carted or barrowed from the cesspool of a house, or of a few houses, to some adjoining field.

SITE, CLIMATE, AND METEOROLOGY.

The sites of all the towns included in the Pottery districts are favourable. The climate is variable, the towns being much exposed to the influence of winds. The situation is generally considered as less damp than South Staffordshire; at the same time the air is often exceedingly humid. No meteorological station exists in the neighbourhood, and, consequently, nothing accurate can be said in regard to meteorological changes themselves, or their relation to the prevailing diseases. Etruria would form an excellent station for any local meteorologist.

REVIEWS.

Scritti Medici. Editi ed in II. editi di FRANCESCO CASORATI, etc. etc. Raccolti e publicati per cura de' suoi figli. Volume I.—Trattato delli Febri Intermittenti, preceduto da' alcune notitzie sulla vita dell' Autore. Pavia e Milano. 8vo, pp. 387.

THIS work, as appears from the title, is an *in memorian* edition of the writings of the able physiologist who was a chosen colleague of the distinguished Scarpa. His two sons, as joint-editors, explain their wish to honour a parent's memory, and also excuse possible inaccuracies by his unexpected death and their non-Medical avocations. A funeral oration by Dr. Zanini opens the book, and briefly tells the story of Casorati's life: how, at the age of six-and-twenty, he entered on the management of a large provincial general practice, and remained buried for ten years, but still "found means to register, arrange, and meditate on the results of his experience in no other way than he would have done in the tranquil practice of a Hospital." So he attained to such eminence that "he was able to pass from the modest condition of a *medico condotto* to the honours of the Professional chair, called to it by a man whose vote is of itself the greatest of eulogies—by Antonio Scarpa."

For two years he delivered courses of general pathology and materia medica in the University of Pavia, and then appears to have been displaced for political reasons by the Austrian Government. The cautious silence of the orator, and of the subsequent extracts from local newspapers, contrast strongly with the free speech of a note added by the editors since "the Austrian domination has ceased to oppress our country." Space forbids any detail as to the hold Casorati's views obtained on the Medical students who attended his instructions; it is indicated by the formation of a party among them who took a pleasure in being called "Casoratiani," and forms an amusing parallel to a similar occurrence among ourselves. A list of Casorati's written works is given by himself, as communicated to the Secretary of the Lombard Institute. The most important of them forms the substance of the volume before us—on the subject of intermittent fevers. This starts by showing how that class of disorders, under the empiric treatment, with purgatives and quinine, often turns into a severe continued type, or becomes complicated with other dangerous secondary symptoms. Etiology is then gone into; external causes, such as cold, heat, wet, miasma, and the like; internal causes, especially the transmutation of continued into intermittent fever, apparently common in Lombardy; "purulent infiltration of the blood;" and other points are adverted to. The acute and chronic complaints consequent on such disorders, and the anatomical changes left behind, are followed by a contrasted view of symptoms in intermittent and continued types. Lastly, causes and treatment bring to a close the first or "synthetic" division of the memoir.

In a second part it is shown how the ancient Physicians had recognised the true etiology of intermittents, and thus they are not "new ideas, sprung from reformers of to-day, but old knowledge forming part of the wisdom of our ancestors." Also it is indicated "that the most constant and capital symptoms of intermittent fevers which we observe now have not changed in the succession of ages," and lastly the opinion is hazarded that humoral pathology is nearer the true explanation of facts than "neoteric solidism."

A long examination of writers ancient and modern follows, and with the diagnosis and treatment of pernicious intermittents the essay terminates. From a note of the editors it appears that the later sheets of the MS. were in a rough state, and a page of heads for additional matter which is appended shows that increased Professional avocations as well as failing health brought to an end the labours of this accomplished Physician.

The work is especially valuable as forming an important link in the chain of evidence on the great and abstruse subject of fever. It is essential that we should have before us all the genera and species of a malady singularly diversified and admitting of numerous modifications, and not limit our definitions to the two or three types endemic in one special locality.

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Guide Pratique du Medicin et du Malade aux Eaux Minerales, bains et aux Environs de Marienbad en Bohême. Par le Docteur EMILE KRATZMANN, etc. Paris, Bruxelles, et Leipsig: A. Lacroix and Co.

THIS is one of the numerous works, partly Medical, partly guide-books, which abound on all mineral waters of the Continent. The first part is "Historico-Topographic," and states that the Marienbad springs have been known for centuries under the name of Tepl or Auschowitz, from the neighbouring convent and village respectively. The place was first brought into notice about 1779. In 1807, says our author very quaintly, "The number of bathers and strangers attracted simply by curiosity increased annually. New buildings secured these people accommodation. Some walks were laid out, partly by the bathers themselves, and all the surrounding valley was embellished in various manners. They likewise built a chapel."

Dr. Charles Joseph Heidler, however, whose rather grim portrait decorates the work, seems to have done much for the celebrity of the springs. Under his "enlightened direction the number of affections and diseases for which the water of Marienbad offered precious resources increased considerably, and surprising results were occasionally obtained." He is, by a singular coincidence, the father-in-law of the writer, who seems to have succeeded on his retirement.

The chemical analysis of the seven springs varies considerably; almost all contain carbonic acid, and the richest in solid ingredients, termed the Ferdinand's-brunnen, holds in solution 9·5706 grammes of salts per kilogramme. More than 5 grammes of this consists of sulphate of soda, 2 of common salt, 1·29 of carbonate of soda; small quantities of carbonates of lime, magnesia, iron, and manganese, with traces of lithia, represented by 0·0090, make up the rest.

The author describes the complaints for which the various springs are advantageous with the usual minuteness of such works. Perhaps our readers will be able to anticipate them from the constituents of the water as given above.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 10.

Mr. FERGUSSON, Vice-President, in the Chair.

Mr. CHARLES HAWKINS communicated a paper, by Dr. George B. Brodie, on

STATISTICS OF QUEEN CHARLOTTE'S LYING-IN HOSPITAL.

The author commenced his paper by observing that in consequence of a notice having appeared in one of the Medical Journals for 1862 relative to the mortality observed in the lying-in Hospitals of London, and in Queen Charlotte's Hospital in particular, the present paper was commenced to give the desired information, and to show that all the deaths which took place in the Hospital were not from puerperal causes. For the last 36 years, from 1828 to 1863 inclusive, the registers have been carefully kept, but no detailed accounts published; during this period 7736 patients (producing 7824 children), were delivered in the Hospital; of this number 3611 were single women, who are admitted if it is their first pregnancy, and of these 126 died, the remaining 4125 were married women, of whom 72 died. The great mortality existing amongst unmarried women on their passage through the puerperal state was then touched upon, and some reasons were given to account for this fact, of which the separation from friends, their living in seclusion for some months previous to their admission into the Hospital, exposure to atmospheric changes, and semi-starvation, all tending to depress the mental and bodily powers, were the principal. Some reference was also made to the married patients, who are often admitted into the Hospital in labour very shortly after they are married, and a case in illustration of this which fell under the author's notice, was given in which the patient walked from the church to the Hospital, registered her letter as a married woman, and was admitted in labour within three days from that date; the mortality amongst the married patients would, therefore, be considerably diminished if it were not for the fact that so many are exposed during the period of gestation to the same depressing causes as the single patients. The first table (Table I.) showed the number of deliveries, and number of deaths, with the death-rate for every year since 1828. The number of women delivered at their own homes annually was also given, but of these, there being no trustworthy records, no further notice was taken.(a) A detailed investigation into the cause of death in each year was then entered into, the results of which were given in Table II.; for four years the Hospital presented a clean bill of health. Puerperal fever (under which denomination its many varieties were necessarily included) was found to have been present in 123 cases, no less than 99 of which were in primaparæ; 75 out of the 123 cases were among the single women; the death-rate from this cause was 1·57. The various periods of the year in which these cases of puerperal fever occurred was given in Table III., the result of which went to show that the healthiest months—or the months in which the least number of deaths happened—were October and August; after these the following order was observed:—November, April; January, July, September, December; May, June; February and March. For eight years the wards were free from puerperal fever. Mania was found to have been present in 16 instances, 15 of these were in primaparæ, and no fewer than 11 were single women; in 12 out of the 16 cases the age of the patient was between 20 and 24. The remaining cases referable to puerperal causes, as post-partum hæmorrhage, ruptured uterus, coma, exhaustion, etc., were 22, making, with the puerperal fever and mania, a total of 161. Of the non-puerperal causes, phthisis and diarrhœa were the principal; pneumonia and some of the eruptive fevers being also present; making altogether a total of 41, which with the 161 deaths from puerperal causes, gives the original number of 202. Another table gave the total number of cases admitted in each month during the 36 years, with the corresponding number of deaths from all causes during the same period, with a result very similar to that obtained when puerperal fever alone was observed. The death-rate of the Hospital was then entered into, which was shown to be, for the married patients, 1·84; for the single patients, 3·48; for both together, 2·6. The death-rate has varied considerably at different times; it was at its highest in 1849—the year of the cholera—and has varied from that to *nil;* in all cases but one, in which the death-rate was unusually high, the cause was found in the fact that the deaths were principally amongst the single women; for instance, in the most fatal year, 1849, the deaths of the single patients were just double the married; in 1850, there were 8 single and no married; in 1860, whereas 14 single women died, there were but 4 deaths amongst the married patients; in this lies the cause of the comparatively high mortality of Queen Charlotte's Hospital. In another table was given the death-rate observed at the "Rotunda Hospital," Dublin; it was obtained by comparing the deaths with the number of admissions during the last 36 years, and was found to be 1·45 per cent. At the "British Lying-in Hospital" the death-rate from 1849 to 1861 inclusive, was ·69, the number of admissions were very small, hardly exceeding 1550 patients. Both of these Hospitals, however, profess only to admit married women. The author went on to remark that, in his opinion, the high death-rate of the "Queen Charlotte's Hospital" was in a great measure due to the fact mentioned at the commencement of the paper, that so many of the married women are exposed during the period of gestation to many of the depressing moral agencies of a single life. A comparison was then drawn between the mortality of a lying-in Hospital with patients delivered at their own homes; the out-door midwifery department of St. George's Hospital (restricted to married women) was taken as an example; the number of patients delivered was 2800, the number of deaths 11 (one of these was a case of abortion, and happened in the Hospital); the death-rate, therefore, was ·38, very favourable when compared with 1·84 or 1·45, and this notwithstanding the filth and poverty in which they live. The author concluded this portion of the paper with a brief account of the foundation of the Hospital, and the following sketch of the ventilation and plan:—The Hospital contains two floors for the reception of patients, one for married and one for single women. On each floor are six wards, containing three beds each, in which the patients are delivered, with an average of 1000 cubic feet space to each patient; but as each ward has not always its complement of three patients, the actual quantity of cubic space to each bed

(a) The total number of patients delivered at their own habitations from 1828 to 1863 inclusive, was 10,858. The number of patients, therefore, delivered in and out of the Hospital during this period was 18,594.

is sometimes increased. On each floor also is one convalescent ward, containing six beds; the walls of the wards are made of Parian cement, painted and varnished so as to enable them to be thoroughly well washed; throughout the building runs a corridor 84 feet long by 7 feet wide, having a window at each end, and a large staircase opening at its centre, in the roof of which is a ventilating opening, protected by a cowl; the whole of the Hospital is thus completely ventilated. Each individual ward is ventilated by means of an opening in a shaft that is carried to the top of the building, an Arnott's ventilator in the chimney, and an opening (that can be closed) over the door, communicating with the corridor; the windows are on the plan adopted at St. George's and the Middlesex Hospitals, which form ventilators of themselves. In each ward there is a constant supply of hot water, and the corridors are heated by means of pipes containing hot water. The water-closets, one on each floor, are external to the building, and approached through an ante-room, so as to be entirely cut off from the rest of the building. The soil is for many feet of the best gravel, and every attention has been paid to the drainage. As soon as a patient is able to be moved from the ward in which she has been delivered, she is placed in the convalescent ward, where she remains until she leaves the Hospital. As soon as three patients have been delivered in a ward, it is not again used till it has been well cleaned, as well as the beds and bedding; by this plan each ward remains vacant for ten days or a fortnight before patients are again received into it. When a case of puerperal fever occurs, the ward is freshly whitewashed, and the walls thoroughly washed down (in some cases repainted), the bedding purified and remade, and the ward not occupied again for at least a month. Everything has been done, both in the construction of the building and in the arrangements for the management of the patient, with a view to render them as little liable to disease as possible. In Section II., facts having more direct reference to the fœtus were investigated. Of the total number of labours—7736—there were 2 cases of triplets and 84 twin births. Out of the 7650 single births, there were 235 abnormal presentations, or 1 in every 32⅔ cases, with a fatal result to the mother in 5 cases, or 1 in 47 cases: the head of the child, therefore, presented in 7415 instances; but of these the face presented in 15 cases, or 1 in 494⅓ cases, and in 103 instances the child's head passed with its face looking towards the pubis of the mother. The funis was prolapsed in 22 cases, being met with once in every 348 cases; of the 22 cases 14 of the children were stillborn; in 12 cases it was prolapsed before the head, and of the children 9 were stillborn; in 6 before the feet, and of the children 3 were stillborn; 2 were cross births, and both stillborn. The upper extremity presented in 21 cases, or 1 in 364 cases, the breech in 139 instances, being 1 in 55 labours; of the children in these 139 cases, 88, or 1 in $3\frac{7}{10}$, were stillborn. The lower extremity presented 49 times, or 1 in 156 labours; 18 of the children, being 1 in $2\frac{7}{10}$, were stillborn. Placental presentations occurred 4 times, or 1 in 1912½ cases. Twin labours were then gone into, and a table given to show the presentation in each case; in by far the greater number of instances—namely, in 39 out of the 84 cases—both children presented naturally; next to this, cases in which the head of the first child, and the nates or inferior extremities of the second child presented, were most frequently met with—namely, in 22 cases. The first child presented with the nates in but 11 cases, and the lower extremity was similarly met with in but 6 cases. This section concluded with a notice of the operations. Craniotomy was employed in 21 cases, being 1 in 361½ cases, and was followed by the death of the mother in 6 instances. Forceps were applied in 49 cases, or 1 in 158 instances, and their application was followed by the death of the mother in 10 cases, or 1 in 15⅘ cases.

Dr. Webster, after a few remarks on the value of the paper, said that, having paid considerable attention to statistics of disease generally, he would make a few remarks on several points in the paper. The author had found that the mortality of the single women was double that of the married. Admitting the influence of distress of mind and privation to which the author had alluded, he thought it ought to be taken into consideration that the single women were always admitted for their first child, and he believed that it was admitted that there was greater danger on a first than on a future delivery. The paper was of great importance, too, as regards the question whether it is desirable or not to have lying-in Hospitals. It was a question which had been discussed throughout Europe. At one institution with which he (Dr. Webster) was connected—the St. George's and St. James's Dispensary—there had been during the last seven years 1515 deliveries and not one death. All these women had been delivered at home. In the British Lying-in Hospital there had been 1500 deliveries in that Institution, and again no deaths. It was singular, the speaker continued, that there should be no difference when the great difference of the position of the patient was taken into consideration:—in one every possible comfort, in the other great poverty and distress. He (Dr. Webster) had found that during the last seven years 175 women had died in the lying-in Hospitals of London generally, and, as stated, during a like period, there had not been one death in the St. George's and St. James's Dispensary out of 1515 cases. This, he thought, told against the lying-in Hospitals. In Vienna the mortality had been 30 per cent. Then as to puerperal mania. There were sixteen deaths from this cause, 11 single women and 6 married, but there was no statement as to the number of patients who had had the disease and had recovered. At Bethlehem Hospital the mortality from puerperal mania was only 4¼ per cent. Dr. Webster, after again remarking on the great interest of the paper, asked for information as to the deaths of the out-patients.

Mr. Charles Hawkins said that, having introduced Dr. Brodie to the Society, he could not let the paper pass without some observations. He felt sure that the Society would be glad to find one of the name of Brodie again working in the Profession. It was to be hoped that the author of the paper would keep his uncle's career in view. Mr. Hawkins then said that when he first began to pay attention to the mortality of Queen Charlotte's Lying-in Hospital he was much startled by the great mortality, and he felt that it was a very serious question whether Lying-in Hospitals should be supported or not. For the construction of the present Queen Charlotte's Hospital he alone was responsible, and he was prepared to defend it. The difference in the mortality in the out-patients and the in-patients was very striking, and at one time it might have depended on the building. He wished to know from Mr. Fergusson if there was a great difference in the mortality at the King's College since rebuilding the Hospital. He believed he was right in saying that at the old Hospital everything as regards hygiene was as it ought not to have been, and the new Hospital had, no doubt, been constructed upon the most approved principles. It would now be interesting to know what difference there was in the course of disease since the new Hospital had been occupied. The answer to this question would be important, as some people put great stress on the construction of Hospitals, and seemed to think that if the Hospital was built in a proper manner death would vanish. He had understood that the patients did as well in the old as in the new Hospital. Then as to the mortality in Queen Charlotte's Hospital, he could not speak as an authority with regard to the particular disease, but he was satisfied that it was brought in, and not contracted in the Hospital. He believed that the author had stated the real causes of a great part of the mortality. It was because this Hospital admitted single women. He (Mr. Hawkins) had paid much attention to this point, and believed that nothing could be more wretched than the condition of many of these patients. Wherever they had been delivered, the result would have been the same. It might be a question whether it was wise, in a social point of view, to take married women from their homes during their confinements, but he had no doubt the mortality in single women would be greater if they were not admitted. It was often their only hope, and in a vast number of instances he felt satisfied that it prevented child murder, if not self-destruction. At Vienna at one time the mortality was 30 per cent. The beds were then divided equally between the midwives and the Medical men. The result was that on the side of the midwives the mortality fell. The reason doubtless was this, that on the Medical side the students who delivered the women made post-mortem examinations, and were engaged in attending patients in the general Hospitals. Mr. Hawkins then remarked on the admission of women for delivery into general Hospitals. He did not consider it advisable, and in Lying-in Hospitals he thought it much better that there should be several small wards than one or two large rooms, as is the case usually in the foreign Hospitals, and that Lying-in Hospitals should never be large. He concluded by saying that he considered that when the author's paper was analysed the Society would give its verdict in favour of Queen Charlotte's Lying-in Hospital.

Mr. Fergusson said that, not being prepared for Mr. Hawkins' question, he must not be taken as pledging himself when he stated that he was under the impression that he had

found no difference in the mortality nor in the course of diseases at King's College Hospital since the new building was erected. There was, he said, still a great difference of opinion as to the mode of carrying out the arrangements for ventilation. He could not speak exactly as to the deaths from parturition, but he believed that there had been one death a few months ago, and a short time afterwards another. Dr. Priestley had since limited the number of admissions.

Mr. CHARLES HAWKINS thought Mr. Fergusson's answer to his inquiries of the utmost importance. It went to show that in the old and new King's College Hospital there was no difference in the rate of mortality, nor had the diseases supposed to depend on badly-constructed Hospitals diminished in number in the new Hospital; indeed, Mr. Hawkins had understood that fever had been more prevalent in the new Hospital last year than it had ever been in the old one. In his opinion the new Hospital was not constructed on the best principles. At the present moment it appeared to him that the Profession as well as the public were running a little too far on the question of statistics of mortality in, as well as on the construction of, Hospitals; not that he for one moment meant it to be understood that it was not of the utmost importance that all attention should be paid to the construction and ventilation of Hospitals, but it must still be borne in mind that the rate of mortality was not simply a "*brick-and-mortar*" question.

Mr. FERGUSSON said that he thought there was yet much difference of opinion as to the best plan of constructing Hospitals. He would be glad, however, to take Mr. Hawkins' word that Queen Charlotte's Hospital was one of the best.

Dr. HICKS, after thanking Dr. Brodie for his valuable paper, said that the mortality of the out-door maternity patients, chiefly married, in number 15,000, was 3½ per thousand. Dr. Hicks had not seen a genuine case of puerperal fever. All the cases of what might be included under the name puerperal fever turned out to be either one of the zymotic diseases, erysipela or pyæmia. But altogether there had been only twenty-five cases, and of these half died. Students, Dr. Hicks said, who were dissecting, were not allowed to attend women in labour. One student had a case of Surgical pyæmia amongst his midwifery patients, and though he attended twenty cases he did not carry infection to the others. There had been no deaths from puerperal mania. Dr. Hicks concluded by asking Mr. Hawkins if, when a patient at the Queen Charlotte's Hospital became ill, a single nurse was kept for that individual patient.

Dr. GRAILY HEWITT believed that in the numerous discussions which had occurred on this general question as to the utility of lying-in Hospitals, certain important circumstances had been overlooked. The great mortality occasionally witnessed in lying-in Hospitals arose from puerperal fever, disease concerning the nature and prevention of which our knowledge has been, up to within a recent period, comparatively limited; and it was, he believed, to be expected that with the aid of more extended information on the subject the disease in question might be prevented to a very much greater extent than was formerly the case. In the institution with which he was himself connected — the British Lying-in Hospital—the mortality during the thirteen years ending 1861, had been only 0·69 per cent., and during the last two years the number of deaths had been even lower than this. It must be recollected further that a certain number of cases treated in lying-in Hospitals were cases of unusual difficulty, and this was to be taken into account in estimating the rate of mortality. He attached the greatest possible importance to isolation of cases one from the other in the prevention of puerperal fever; the atmosphere of one ward should not be allowed to communicate with that of another. So, again, it was essential that the nurses exercise great care, in performing the daily ablutions, not to use sponges or flannels indiscriminately. With reference to puerperal fever, he entirely agreed with the previous speaker in considering that it was not a distinct and separate disease; it was to all intents and purposes pyæmia, and we could only hope for a successful result in its treatment by adopting measures of a sustaining and stimulating character. The mortality in lying-in Hospitals from puerperal fever would, he believed, be diminished as the knowledge which has of late years been acquired respecting the nature and treatment of this disease came to be applied.

Dr. F. W. MACKENZIE thought the opinion of the Profession would change as to the advantages of Lying-in-Hospitals. He held that the number of fever cases had nothing to do with the Hospital, but with the individuals admitted. If any one, he continued, would study the arrangements of Queen Charlotte's Hospital, comparing it with others, and would consider the nature of the cases admitted, the conclusion arrived at would be that the real cause of the fever case was not in the Hospital, but in the patients who were admitted. Patients were admitted who were in a state of starvation, without friends, and with no home. Cases of this kind would die anywhere. Last week, Dr. Mackenzie said, a ballet dancer was admitted, who died after confinement of a dead and putrid child. She had been seduced. She had then no means of earning her livelihood; was very much exhausted, and in great distress of mind. A case of this kind could not be put down to any supposed defect in the Hospital. The fever, he said, was secondary to some general condition in the patient, and was not in itself a disease to be taken in a Hospital by a healthy woman. The whole theory of puerperal fever was wrong.

The AUTHOR, in his reply, said that the registration of the out-patients was not sufficiently accurate for statistical purposes. Those cases of mania ending in recovery were not included in his statement. In reply to Dr. Hicks' query, the Author said that when a patient was taken ill a nurse was taken on for that patient only; and in reply to Dr. Graily Hewitt, he said that the very greatest care was taken as to the sponges.

Dr. WOOD said that at Bethlehem they looked on puerperal mania as the most satisfactory and most curable form of mania.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Gentlemen having undergone the necessary Examinations for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 24th inst., viz. :—

Messrs. Oliver Humphrey Fowler, Kingsclere, Hants; Edward Roberts Smith, Dudley; Francis Mears Beckett, Canterbury; Henry Nelson Edwards, Finsbury-square; Henry Melville Brewer, Newport, Monmouthshire; George Cox Douglas, Grantham, and Charles James Wills, Stockwell, Students of St. Bartholomew's Hospital. William Melvill Knipe, Leigh Linton, Worcestershire; Andrew Wise, Plumstead, Kent, and Augustin Barber Fry, Sleaford, of Guy's Hospital. Joseph Burne, Dublin; Thomas Richards Phillips, Dublin, and Frederick Fludd Dickinson, M.D. Queen's University, Ireland, Wicklow, of the Dublin School. John Foot Churchill, Poole, Dorset, and William Burt Shorts, L.S.A., Southampton, of the Charing-cross Hospital; Philip Brookes Mason, Burton-on-Trent, and Thomas Sanders, Plymouth, University College; Joseph Gedge, Bexhill, Surrey, of King's College, and Henry Edward Armstrong, Newcastle.

At the same meeting of the Court, Mr. Charles James Devonshire passed his Examination for Naval Surgeon; this gentleman had previously been admitted a Member of the College, his Diploma bearing date April 4, 1855.

Admitted members on the 25th inst. :—

Messrs. Charles Edward Squarey, Salisbury; Matthew Henry Cantrell, Wirksworth, and Charles Read, Falmouth, students of University College; William Vacy Lyle, Harrow-road, and Daniel Webster Tomlinson, Penynant, North Wales, of St. Mary's Hospital; George Levick, Stratford, Essex, of the London Hospital; William Heath Strange, Streatley, near Reading, of St. Thomas's Hospital; John Norrish, Ceylon, of Middlesex Hospital; Nicholas Watson Fairles, South Shields, of St. Bartholomew's Hospital; Charles James Fox, L.D.S., Mortimer-street, Cavendish-square, of St. George's Hospital; William Cross, M.D., St. Andrew's, Liverpool; William Richard Gore Hinds, M.D., Queen's University, Ireland, Galway; Augustus Morton Roberts, Sheffield; William Burrows, Liverpool; and Edward Borough, Kilrush, Co. Clare.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, May 19, 1864 :—

John Arthur Ensor, 31, Carter-street, S.; John Roof Ireland, Kingswinford, Stafford; Francis Albert Davey, Bath; Henry Wilson, Glasgow; William Warwick Wagstaffe, Walcot-place, Kennington; Frederick William Richards, Winchester; Charles Durrant Pearless, East Grinstead, Essex; Evan Jenkins, Cardigan-street, S.W.; Joseph Wilkinson Warburton, Royal Infirmary, Liverpool; William Nicholas Heygate, Hanslope, Bucks; Robert Wrentmore Thomas, Cheyne-walk, Chelsea; Philip Cowen, Kennington, S.; Edwin Charles Smallman, Barnet, Herts.

The following gentleman, also on the same day, passed his First Examination :—

Richard James Andrews, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ALLINGHAM, JAMES H., M.R.C.S. Eng., has been appointed Dental Surgeon to the Surrey Dispensary.

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ATKINSON, EDWARD, M.R.C.S. Eng., has been elected Surgeon to the Leeds Dispensary.

BALLANTINE, ROBERT, M.D. Glasg., has been appointed Surgeon to the Prison at Jedburgh.

BLAKER, NATHANIEL P., M.R.C.S. Eng., has been elected House-Surgeon to the Sussex County Hospital, Brighton.

BROWNE, JAMES C., M.D. Edin., has been appointed Assistant Medical Officer to the County Lunatic Asylum, Hatton, Warwickshire.

CARSON, THOMAS, L.R.C.S.I., has been appointed Resident Assistant Surgeon to the Dispensaries, Liverpool.

COLLIE, ALEXANDER, M.D. Aberd., has been appointed Resident Assistant to the Royal Infirmary, Dundee.

COOPER, THOMAS J., M.R.C.S. Eng., has been elected Surgeon to the Brighton and Hove Provident Dispensary.

FOX, TILBURY, M.D. Lond., has been appointed Senior Physician to the St. John's Hospital for Diseases of the Skin.

FRODSHAM, J. NIELL, M.D. Edin., has been appointed Physician to the St. John's Hospital for Diseases of the Skin.

HAUGHTON, E., L.F.P. and S., Glasg., has been appointed House-Surgeon to the General Dispensary, Rochdale.

HEWETT, PRESCOTT G., F.R.C.S. Eng., has been appointed Examiner in Surgery to the Army Medical Department.

JEFFERY, EDWARD, M.R.C.S. Eng., has been elected Surgeon to the Yeovil Infirmary and Dispensary.

LAND, ROBERT T., M.D. Edin., has been elected Surgeon to the Leeds Dispensary.

LEESON, JOSEPH F., L.R.C.P. Lond., has been appointed Medical Officer for the Workhouse of the Bradford Union, Yorkshire.

LOGAN, WILLIAM, L.F.P. and S. Glasg., has been appointed Certifying Factory Surgeon.

MARCH, HENRY C., M.B. Lond., has been appointed Medical Officer to the Rochdale Police.

NEVILL, WILLIAM, M.B., T.C.D., has been appointed Medical Officer to the Constabulary of Dungannon, Co. Tyrone.

POWELL, W. E., L.F.P. and S. Glasg., has been elected Medical Officer for the Union Workhouse of Farnham, Surrey.

POWELL, W., M.B., has been elected Resident Medical Officer to the Tower Hamlets Dispensary, Commercial-road.

ROE, W., M.D., has been appointed Resident Assistant House-Surgeon to the Dispensaries, Liverpool.

SOUTHEY, REGINALD, M.B. Oxon., has been appointed additional Assistant-Physician to the City of London Hospital for Diseases of the Chest, Victoria-park.

TAYLOR, HENRY, M.R.C.S. Eng., has been elected Resident Medical Officer to the Norwich Dispensary.

TREVOR, WILLIAM, M.R.C.S. Eng., has been elected Medical Officer to the Dulverton Union Workhouse.

WEBB, CHARLES, M.R.C.S. Eng., has been appointed Medical Officer to the Basingstoke Workhouse.

WILSON, ERASMUS, F.R.C.S. Eng., has been appointed Senior Surgeon to the St. John's Hospital for Diseases of the Skin.

WOODS, THOMAS, M.D. Glasg., has been appointed Surgeon to the Parsonstown Gaol and Constabulary.

DEATHS.

BLOOR, JOHN TABBERER, L.S.A., drowned in the River Wairiu, near Nelson, New Zealand, early in February, late of Tutbury, Staffordshire, aged 30.

JOCE, JOHN, M.R.C.S. Eng., at Colchester, Essex, on May 4, aged 58.

SKINNER, H. T., M.D., at Sandyford-place, Glasgow, on May 13.

TAYLOR, J., Surgeon R.N., at the New Passage, Gloucestershire, on May 18, aged 75.

TOMKINS, CHARLES, M.D., of Weston-super-Mare, at West Monkton, Somerset, on May 17, aged 68.

WELLS, ANTHONY, M.R.C.S. Eng., at Basingstoke, Hants, on May 15.

JACKSONIAN PRIZES.—The Council of the College of Surgeons has just announced the following as the subjects for the Jacksonion and Collegial Prizes of twenty guineas and fifty guineas respectively; for the former prize there are three subjects, each of which may have an award:—"Club-foot, its Causes, Pathology, and Treatment;" "The Diseases of the Ankle-joint, and of the Joints and Bones of the Tarsus, Requiring Surgical Treatment, and Stating the Treatment, including Operative, most suitable in each case, with the results thereof;" and "The Malformation, Diseases, and Injuries of the Fingers and Toes, with their Surgical Treatment—the Dissertation to be illustrated by Preparations and Drawings." There are also two subjects for prizes for the ensuing year, 1865, namely:—"The Diseased Conditions of the Knee-joint which require Amputation of the Limb, and of those Conditions which are favourable for Excision of the Joint, with an Explanation of the Relative Advantages of both Operations, as far as can be ascertained by Cases properly Authenticated;" and "The Relative Value of the various Modes of Treatment of Popliteal Aneurism, illustrated by Cases." The following is the subject for the Collegial Triennial Prize, the essays for which must be sent in before Christmas Day next:—"The Structural Anatomy and Physiology of the Lymphatic Vessels and Glands (the Anatomical Distribution not being required); the Communications (if any) between the Lymphatics and Blood-vessels to be Demonstrated; and the Influence (if any) which the Lymphatic Vessels or Glands Exercise on the Fluid they Transmit, to be Elucidated—the Dissertation to be illustrated by Preparations and Drawings."

THE LA POMMERAIS CASE.—Whatever be the result of these efforts to save the life of the convict, a question will arise as to whether the large sum (£22,000) for which the life of the woman De Pauw was insured will have to be paid over to her children; and whether the transfers executed by her in favour of La Pommerais are valid. It is probable that these transfers, obtained by fraud, will be considered null and void, so that La Pommerais, or his representatives, will have no claim on the companies. But the insurances, it is contended, will be still available for the children of the murdered woman. It is established, and the companies have not, I believe, disputed the fact, that they did not sign the contracts drawn up in her name and for her behalf without having taken all the preliminary steps usual in such cases, and obtained all the information respecting the insurer when they covenanted to pay a specified sum. The conditions of the contract between Madame de Pauw and the companies were fulfilled so far. She had been visited by the companies' Medical officers, who reported that her health was excellent, and that the insurance might be safely effected; and the first premium was punctually paid. The policies of insurance specify only two cases where insurance companies may refuse payment—suicide or death in a duel; but when the party insured is murdered, his or her heirs must not suffer by the crime of a third party, nor are the companies released from their engagements. It was the woman's life that was insured, and not La Pommerais's; and in no case would the latter take anything by the transfer of her title to him, as it was shown to be obtained by fraud.—*Paris Correspondent of the Times, May 20.*

WERE our own Profession true to themselves, and if they would refuse to recommend or patronise any but graduates in pharmacy, quackery would not be enabled to ride "rough-shod" over the Profession. At present, in too many instances, the apothecary's store is a mart where can be obtained almost any fancy article, stationery, cigars, and tobacco, liquor under various disguises, patent medicines for every purpose under the sun, and a few drugs. In fact, there is scarcely a druggist but is in the habit of prescribing over the counter, too frequently recommending his own wares in preference to the prescription which is brought for his compounding, and sometimes announcing a series of "cure-alls" which he calls his own, adding the title of "Doctor," without the slightest shade of a diploma, though one could be bought for a mere trifle, with all the "rights and privileges thereunto belonging."—*Philadelphia Correspondent of Am. Med. Times.*

MEDICO-CHIRURGICAL SOCIETY, ABERDEEN. — At a meeting of this Society, held on April 7, the subject of students of Medicine becoming apprentices of Medical Practitioners was brought under the notice of the Society, and it was agreed to refer the matter to a Committee to consider and report. At the meeting of May 5, the Committee's report was brought up and agreed to as follows:—On the general question of Medical apprenticeships, the Committee would remark that the system cannot be regarded as holding, in the present state of the Profession, the same important place as it did in the memory of many of our number, when in the majority of cases it was the only means of providing for the effectual study of the several branches of Medical education. In the present day, the full organisation of numerous efficient schools of Medicine, the greater facilities afforded in Hospitals for the training of students, and the system of examination now in force, as well in the ordinary courses of lectures, as preparatory to the granting of degrees and licenses, have, in the general judgment of the Profession, provided so complete a system of imparting knowledge, of stimulating the exertions of the students, and of testing their abilities, that it is now comparatively rare to find a Medical man laying himself out for taking apprentices. The Committee feel that at present the tendency of public opinion is so decidedly against the general adoption of the apprenticeship system, that it may safely be left to students themselves, and to those who have a personal interest in their education, to judge of the cogency of the arguments to recommend it in particular cases. The practical good sense of the parties most directly concerned may be held a safe guide when no undue influence is brought to bear on them; and the Committee repudiate the idea that any member of the Society would use his social or Professional influence for such a purpose. In Aberdeen, especially, as the seat of an important Medical school, in which a large proportion of those practising here are employed as examiners for degrees, both the

Profession and the public at large are naturally suspicious of any influence which might possibly be supposed to interfere with the impartial discharge of these official duties. In this very sensitiveness, however, on the part of the public, there is so ample a corrective of any unconscious bias of personal regard, that the Committee believe the credit of our Aberdeen degrees never stood higher than at present. The admitted status of the graduates of our University, and the high position many of them have taken before other examining boards, are the best indications both of the efficiency of its teaching and of the stringency of its examinations. If additional security is still required, we have it in the appointment under the late ordinances of the Universities' Commissioners of extra-Professional examiners, to be changed from time to time, and in the circumstance which the Committee think ought to be generally known, that the Medical Faculty of the University, who have long followed the rule that no Professor should examine his own son, have recently adopted the same practice with regard to apprentices and private pupils.

THE RECRUITING SURGEON.—We are not as yet at war, so that there is no extraordinary number of legs and arms in the army requiring amputation, nor do any bullets need to be extracted from the bodies of any British soldiers, except those engaged in fighting the Maories, not to mention the black-amoors of Ashantee, who fight shy. What is there, then, to account for this advertisement, which has appeared in the *Times*?—

"ARMY MEDICAL DEPARTMENT, 6, WHITEHALL YARD,
" 22nd April, 1864.

ACTING ASSISTANT-SURGEONS being REQUIRED for temporary service with the Army in the United Kingdom, gentlemen duly registered to practise medicine and Surgery under the Medical Act of 1858, and desirous of obtaining such appointments, may apply immediately to the Director-General for the printed form required to be filled up by every candidate previous to employment. They will receive pay at the rate of 10s. a-day, and allowances equal to those of a Staff Assistant-Surgeon. Gentlemen are not eligible for these appointments whose age exceeds forty years.

" J. B. GIBSON, M.D., Director-General."

Whence the pressing demand for army Surgeons, manifested by the foregoing notice? Simply from the revocation at head-quarters of the Royal Warrant of 1858, which assured Surgeons in the army of suitable relative rank, proper precedence, and the social position due to gentlemen. The faith thus pledged was coolly broken by certain other orders called the *Queen's Regulations*, issued in 1859, which rescinded the Queen's Warrant of 1858, with a dishonesty most derogatory to her Majesty's name, audaciously connected with them. These new arrangements, dictated at the instance of the so-called "combatant" officers, provided that the Medical officers should rank as civilians, and be treated as snobs. The consequence is what has necessitated the above advertisement. There is a Surgeon-famine in the army. Men of education refuse an office which subordinates them to a lad who is possibly a contemptible puppy. Service in the army, instead of being sought through the ordeal of a competitive examination by spirited young Surgeons, has to be importunately tendered to Practitioners of the mature age of forty. Their practice must be very unprofitable if they can gain anything by exchanging it for temporary employment in the army. When the gallant combatant officer, who insists that his Surgeon shall be a snob, comes to have his leg removed, or a bullet extracted from his hip-joint, he will perhaps lament that the operation has to be performed by an operator for whom Dr. Gibson, the Director-General, was reduced to advertise, in his capacity of Recruiting Medical Officer. Colonel North, in a late debate on the estimates, stated that there were two hundred vacancies for army Surgeons the other day, and that only six candidates presented themselves for examination. If war ensue, and the Duke of Cambridge, in action, should unfortunately receive any injury needing Surgical aid, it is to be hoped that the Surgeon who shall render that aid to his Royal Highness will be one of those six. In the meanwhile, perhaps, the restitution of the Royal Warrant of 1858 will relieve Dr. Gibson of the necessity of touting for Surgeons to job the army.—*Punch.*

PREGNANCY WITHOUT IMMISSIO-PENIS.—Professor Scanzoni relates the case of a woman, aged 29, in whom he detected a four-months' pregnancy, although the orifice of the vagina was closed by a firm and tense membrane, in which an aperture big enough to admit a probe was discovered with much difficulty. In his long experience he had never met with a similar instance, although he has seen cases in which remains of the hymen existed, and one in which this membrane continued quite uninjured. The membrane only yielded slightly upwards, so that immissio-penis was completely impossible, and the question is, how did the semen reach the uterine orifice, four inches distant? After the seventh month the opening gradually widened a little, so that a quill could be easily introduced; and by the time labour set in the finger could be passed in. As the labour advanced, there was found to be also a thin circular membrane attached to the walls of the vagina at the junction of its upper and middle third; but a large opening existed in this, so that it caused no obstruction to delivery. As, however, the thickened hymen formed a dense ring, which prevented the passage of the head, a small crucial incision was performed, and the delivery easily terminated.—*Allg. Wien Med. Zeit.*, No. 4. [Dr. Mattei, in *Union Médicale*, No. 36, relates a similar case of a woman who became pregnant after having been married 11 years. The husband was aware that she was malformed, but had contented himself with incomplete connection. On examination, a cul-de-sac was found, which, probably formed through the attempts at copulation, only admitted the finger to the extent of 1½ centimetre. The most careful examination by means of the speculum could not detect the aperture by which the semen must have entered. After severe labour for three days, the tissues in front of the head gave way and admitted the finger. Delivery was completed by the forceps.]

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. H. W. B.—We are obliged to limit our obituary notices strictly to members of the Medical Profession.

G. T. H.—1. A book called "Medical Guide for Emigrants," published by the Christian Knowledge Society. Also books by Messrs. South, Smee, and Jabez Hogg. 2. Apothecaries' Hall.

B. A.—If our correspondent entertains the slightest doubt of his patient being insane, we would strongly advise him not to sign a certificate. We know of no mode in which he could be legally guaranteed against the consequences.

We are obliged, by want of space, to postpone Mr. R. O. Clark's letter on the late meeting of the Governors of the Royal Medical Benevolent College until next week.

Errata.—In the article on the French Poisoning Case in our last Number, p. 565, *for* "Desormeme," *read* "Desormeaux;" *for* "Vulpiau," *read* "Vulpian;" *for* "Raynal," *read* "Reynal."

MORTALITY OF SCARLET FEVER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I have only just this moment seen your *Medical Gazette* of the 7th inst. In reply to your correspondent "R. E.," I beg to say that, although it is astounding, it is nevertheless true—as my certificates of death will prove—that in my own practice I had lost only one case of scarlet fever during the last fourteen years. I attribute the success to various causes—(1) to the plan of treatment, which I carry out to the very letter, and which I firmly believe prevents the cases from becoming malignant; (2) to the healthiness of Birmingham; and (3) to my practice not being among the lowest classes of the town. Be the cause what it may, the fact is as I have stated.

I have never kept a registry of the number of cases, but they must have been numerous, as my practice is much among children. I only wish my fellow workers would try my treatment, and carry it out strictly, and allow no other plan to interfere with it, and that they would publish the result in your Journal. Assured I am that, if the cases be not malignant, the plan I have recommended will be most successful. Before I adopted my present treatment I was as unfortunate as any of my Medical brethren.

I am, &c.

Birmingham, May 23. PYE H. CHAVASSE.

HEREDITARY PALMEDACTYLISM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The fact is well-known that palmedactylism is one of those freaks of nature which are transmitted from generation to generation, but I believe it is somewhat rare to meet with a well-authenticated instance of successive generations having this deformity so largely manifested as is shown in an instance which has recently come to my knowledge. I take the liberty, therefore, of sending the particulars for publication, and should the pressure on your columns admit of it, I would be happy to see them in the *Medical Times*.

Mrs. D., the mother of four children, was born with her two middle fingers of each hand webbed. Three of her children have the same deformity, but only in one hand; the fourth, born a few weeks ago, and died three days after birth, had, in addition to the webbed fingers, a double harelip and split palate. The mother of Mrs. D., three aunts, and an uncle, had each one hand webbed; her grandmother, who only died last year, had the same fingers of same hand joined; and she informed Mrs. D. that her mother and grandmother—that is, Mrs. D.'s great, and great great grandmother—had the same peculiarity, and some generations previous which she could vouch for had the same defect.

It occurs more frequently amongst the females than the males, and some families had it only alternately; so that we have six generations in succession, with a number of instances in each well authenticated.

Alloa, May 17. I am, &c. JOHN DICKIE, M.D.

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The Difficulties of the Army Medical Department.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The call for Acting Assistant-Surgeons, while unmistakably indicating the unpopularity of the Army Medical Department, the urgent straits and miserable expedients to which the Director-General is reduced, is a procedure in many respects so objectionable as to be justifiable only by the exigencies of war.

With your permission I shall briefly advert to one or two of the most prominent and obviously injurious consequences resulting from so extraordinary a measure.

At present the period of foreign service is limited to three or five years, according as the station is considered unhealthy or otherwise, at the expiration of which time Medical Staff officers are, by regulation, entitled to return to England, and take tour of home duty until ordered abroad again in course of rotation. But if home duty is to be exclusively, or in great part, performed by Acting Assistants, it is obvious that Medical Staff officers will be almost or altogether precluded from serving in England; and, if so, the scale of pay requires to be proportionally increased, and such other alterations and arrangements intimated as must necessarily follow from the indefinite extension of foreign service.

I abstain at present from saying anything as to the efficiency with which Hospital and clerical duties are likely to be conducted by civilians not exceeding 40 years of age, who have received no special training, and being temporarily hired cannot be expected to take any interest in their work. The rank and file will be the sufferers. *Quicquid delirant reges plectuntur Achivi.*

Instead of lowering the standard and the character of the Department by indiscriminate admission, it would have been more prudent and really more economical to have retained the high qualification; and by increasing the bounty recruits would have been readily secured, by a timely adoption of those improvements and concessions so frequently advocated in your columns. These are, briefly,—

1. Increased pay to Assistant-Surgeons if unpromoted after 10 or 12 years' service.
2. Retirement on 15s. after 20 years' service, and on 20s. or 21s. after 25 years' service.
3. Full pay retirement after 30 years' service.
4. Retirement at the age of 55 to be dependent on efficiency as determined by a Medical Board.
5. Promotion in all grades by seniority, as in the scientific corps of Artillery and Engineers, instead of emanating from Whitehall or the Horse-Guards.

Let the above come into immediate operation, and there will be no need to advertise for Acting Assistants. I am, &c. H. P.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I am induced to address you for two reasons—firstly, for the purpose of thanking you for the kind interest you have taken in, and the able manner in which you have advocated the rights and privileges of the Medical officers of the army; and secondly, with the intention of pointing out what reforms are really required by the Department, and what inducements are necessary to cause an efficient class of Medical men to offer themselves for the service. Some communications have appeared in the papers, evidently from young and inexperienced writers; therefore, as a Medical officer of long experience, and one who has carefully studied the subject, I wish to point out what changes are urgently necessary.

These requirements are:—

Firstly, strict promotion by seniority in all ranks.

2ndly, the scale of pay and retiring allowances recommended by your very able correspondent, "Army Surgeon," in your paper of the 19th of March last.

3rdly, the restoration of all the advantages conferred by the Warrant of October 1, 1858.

4thly, some guarantee that Medical Warrants are not to be done away or tampered with.

5thly, the branding of military felons not to be the duty of the Medical officer.

With regard to requirement No. 1, I may safely say that much of the ill-feeling existing amongst Medical officers of the Department is caused by the great injustice which is continually perpetrated on able and experienced officers, who have served in all quarters of the globe, by the system of selection; but it is not necessary to dilate further on this head than to quote the opinion of Dr. Mapleton, one of the Medical Board, who stated in his evidence that in promotion by selection, in nine cases out of ten, the best men are not selected; indeed, we all know that the "right man in the right place" is he who has interest and influence in the right place.

The pay and retiring allowances recommended in requirement No. 2 may appear unreasonable, but the authorities may rest assured that less will not satisfy officers now serving, nor attract well-qualified Medical men to enter a service which at once separates them from friends and relations, and dooms them to expatriation for years, if not for ever.

It is not necessary to say much in explanation of requirements Nos. 3 and 4, except to observe that in future it behoves the authorities to cause all Medical warrants to be fully and faithfully observed and carried out.

The duty of branding military offenders is, no doubt, a disagreeable one, but as it must be performed, let it be done on "company parade," the officers of the culprit's company and the Medical officer being present.

I am, &c. A Staff Surgeon-Major.

COMMUNICATIONS have been received from—

Dr. Henry Behrend; A Staff Surgeon-Major; G. T. H.; Apothecaries' Hall; R. H.; Mr. R. Beven; Messrs. J. Weeks and Co.; Mr. H. W. Best; Dr. W. Fairlie Clarke; Dr. Silvester; B. A.; Western Medical and Surgical Society of London; Dr. George Brodie; Mr. Pye H. Chavasse; Dr. R. Dundas Thomson; Royal College of Physicians, Edinburgh; Mr. R. Oke Clark; Obstetrical Society; Royal Institution; Dr. A. Wynn Williams; Dr. J. H. Allingham; Dr. Moon.

BOOKS RECEIVED.

Lectures on the Elements of Comparative Anatomy. By Thomas Henry Huxley, F.R.S. On the Classification of Animals and on the Vertebrate Skull. London: John Churchill and Sons, New Burlington-street. 1864.

*** These lectures differ by the omission of the inaugural discourse, by additions, and by a change of arrangement, from those published in our columns last year.

A Dictionary of Chemistry and the Allied Branches of other Sciences. By Henry Watts, B.A., F.C.S. Parts 13, 14, and 15. May, 1864. London: Longman, Green, Longman, and Co.

*** The second volume begins with letter H, and contains, in 130 pages, a most condensed and elaborate account of Heat.

Homes without Hands. By the Rev. J. G. Wood, M.A. Part 5.

*** An interesting account of humble bees, wasps, and beetles, and their homes. The honey of the humble bee is said to be sweet and fragrant, but to cause headache.

The Nature of so-called Parasites of the Skin. By W. Tilbury Fox, M.D. Lond. Printed by T. Richards, 37, Great Queen-street.

*** This is a reprint of a paper in the *British Medical Journal*.

The Principles of Surgery, Clinical, Medical, and Operative. By Frederick J. Gant, F.R.C.S.E. London: John Churchill and Sons. 1864.

The Science and Art of Surgery. By John E. Erichsen, F.R.C.S. Eng. Fourth Edition. London: Walton and Maberly. 1864.

A Treatise on Human Physiology; designed for the Use of Students and Practitioners of Medicine. By John C. Dalton, Jun., M.D. Third Edition. Philadelphia: Blanchard and Lea. 1864.

A Treatise on Pharmacy; designed as a Text-book for the Student. By Edward Parrish. Third Edition. Philadelphia: Blanchard and Lea. 1864.

Transactions of the Obstetrical Society of London. Vol. V., for 1863. London: Longman and Co. 1864.

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 21, 1864.

BIRTHS.

Births of Boys, 918; Girls, 896; Total, 1814.
Average of 10 corresponding weeks, 1854-63, 1740·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	761	660	1421
Average of the ten years 1854-63	588·6	541·0	1129·6
Average corrected to increased population..	..	..	1243
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,888	..	5	9	..	8	6	..
North ..	618,210	3	16	12	3	9	15	3
Central ..	378,058	..	21	6	2	6	10	1
East ..	571,158	1	27	8	2	15	17	6
South ..	773,175	..	18	17	1	21	17	4
Total ..	2,803,989	4	87	52	8	59	65	14

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·013 in.
Mean temperature	61·8
Highest point of thermometer	81
Lowest point of thermometer	45·3
Mean dew-point temperature	51·6
General direction of wind	Variable.
Whole amount of rain in the week	0·22 in.

APPOINTMENTS FOR THE WEEK.

May 28. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

Royal Institution, 3 p.m. Alexander Herschel, Esq., "On Falling Stars."

30. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

31. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Royal Institution, 3 p.m. Professor Marshall, "On Animal Life."

June 1. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m., Middlesex, 1 p.m.; London, 2 p.m.

Obstetrical Society of London, 8 p.m. Dr. Greenhalgh, "On Placenta Prævia." Dr. Aveling, "On Immediate Transfusion."

2. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m., Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Royal Institution, 3 p.m. John Hullah, Esq., "On Music (1600-1750)."

3. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Prof. Frankland, "On Recent Chemical Researches in the Royal Institution."

Western Medical and Surgical Society, 8 p.m. Annual Meeting. Dr. Morel Mackenzie, "On the Laryngoscope."

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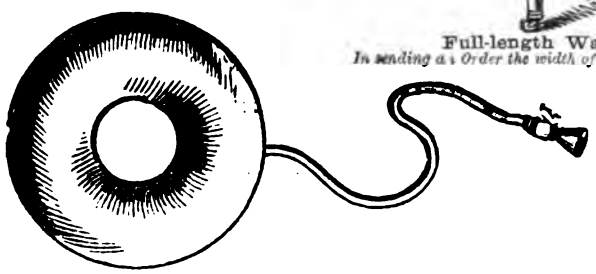

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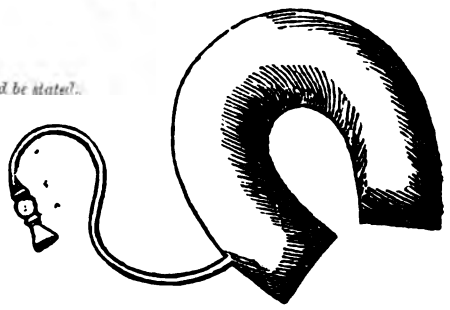

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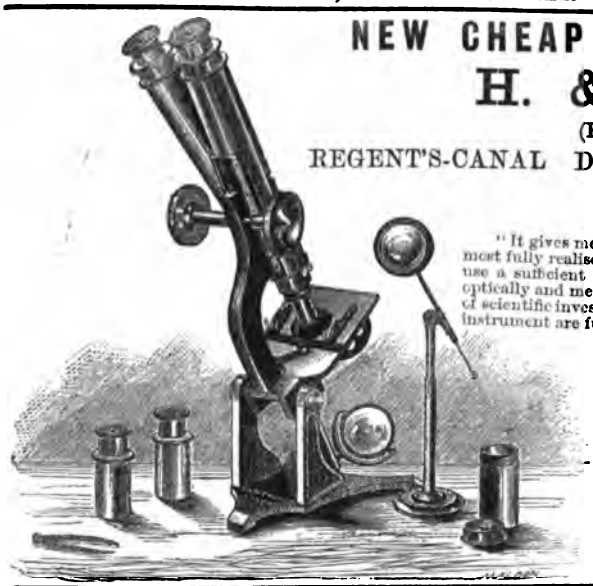

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"WILLIAM B. CARPENTER, M.D., V.P.R.S.,
"Author of 'The Microscope and its Revelations.'"

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ORIGINAL LECTURES.

COURSE OF
LECTURES
ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D.,
Professor in University College, and Assistant-Physician to University College Hospital.

LECTURE IV.

(Continued from page 586.)

Uric acid calculi, although most common in early life, may occur at all ages from birth upwards.

Infants have been born with stone in the bladder. Here are three well-formed calculi, as large as barleycorns, that were found by Mr. Shepherd, of Great Portland-street, in the right kidney of a child aged ten months, about the cause of whose death I was consulted by the coroner in consequence of her having died suddenly after drinking some porter.

This, on the other hand, is the kidney of a gentleman over 60 years of age, and it contains no less than fifty-nine small stones, mostly, as you see, about the size of garden peas. Curiously enough, the right kidney contained none, nor was I able to detect any in the bladder. In both this case and that of the child the calculi consist of uric acid.

Uric acid are the most common of all calculi. Of one hundred and twenty-six of the calculi in the museum of University College analysed by me a few years ago, eighty-seven consisted of uric acid either in whole or in part.

As regards the treatment of uric acid calculi, I may here say a few words.

When the calculus is in the urethra or bladder, cutting or crushing, if the condition of the patient admits of it, ought immediately to be had recourse to. But when the calculus is in the ureter or kidney, it is unfortunately beyond the reach of any instrumental interference; and in the majority of such cases, if the stone be large, incurable. Should, however, the case be seen in the early stage, it is in our power, not only to arrest any further deposit, but even, by suitable remedies, to some extent, redissolve what has already formed, more particularly if it be in the shape of sand. When, however, a large solid stone has formed, palliation, not cure, is all that can be hoped for.

The remarks now made are limited entirely to uric acid calculi; for, as you will afterwards see, there are some calculi of so soluble a nature as to admit of removal by dissolution even when in an advanced stage of formation.

Various remedies have been resorted to with the view of retaining any excess of uric acid in a soluble state until after its expulsion from the body. Carbonate of soda has been much used for this purpose, also the bicarbonate of potash, and more recently the carbonate of lithia. Each of these remedies is useful, as, indeed, all alkaline carbonates are, with the exception of that of ammonia. The carbonate of ammonia should be avoided in the uric acid diathesis on account of the salt which it forms being much less soluble than any of the others.

In treating cases of uric acid deposit, it is unnecessary to render the urine more than neutral. Indeed, there is a danger in making it alkaline from the circumstance that phosphates have a great tendency to form round uric acid calculi (as is seen in these twelve specimens of various shapes and sizes now on the table), and whenever the urine becomes artificially alkaline, although the deposition of uric acid is interrupted, a deposit of triple phosphates takes its place. The stone, therefore goes on forming as rapidly as before, the only difference being that its nature is changed.

In cases where the alkaline carbonates are counter-indicated, citrates, tartrates, or acetates may be used in their stead, for the reasons before given. Some have imagined that uric acid gravel only appears in urine of the well-fed and corpulent. This is a great error. It equally occurs in that of the poorly nourished and emaciated, the only difference being that it is more common among the former than among the latter. In this urine, you perceive, there is a copious deposit of uric acid. The bottom of the glass looks as if it had been sprinkled over with a layer of yellow sand; yet this is the urine of a delicate, anæmic lady, with a miserable appetite. In her case the deposit appears to be hereditary—at least, her father is said to have suffered from gravel.

The most remarkable illustration, however, that I can give of the truth of the above statement is furnished by the sand and gravel in this paper, which was passed by a patient of Mr. Ramsbotham, of Amwell-street. The gentleman who passed it was not only out of condition, but was actually on what might be called starving diet. The following is the brief history of the case, kindly furnished to me by Mr. Ramsbotham:—

"An officer in the army, upwards of 60 years of age, who had seen active service in every quarter of the globe, on his return from India by the overland route, deviated from the usual track for the express purpose of restoring his shattered health in the hydropathic establishment of Prisnitz, in Silesia. He remained there some weeks; but failing to have his juvenility restored, he repaired to a rival establishment a few miles distant, in which a directly opposite mode of treatment was adopted. Instead of using water freely, both internally and externally, as in the other establishment, in the latter very little food and no water was allowed, so long as the patient's strength would permit the deprivation, and then, perhaps, only at distant periods would a wineglassful of water be given. The urine passed was scanty in quantity, and, when simply filtered, left on the paper the powder, of which this is a portion."

On analysis, I found that the powder and small concretions consisted of uric acid, and urate of soda, with a very small quantity of urate of ammonia.

Enough has now been said regarding uric acid in excess; we shall therefore turn our attention to the equally important fact, that under certain pathological conditions its formation is diminished. We are not yet in a position to speak confidently regarding the nature of all the conditions, but we are sufficiently familiar with the fact that the elimination of uric acid by the urine is diminished in the following diseases, and that it is to some extent under the control of remedies. In yellow (Porcher) and remittent (Parkes) fevers the excretion of uric acid is much decreased. In diabetes it is likewise found to be reduced to a minimum. Lehmann, indeed, thinks that in diabetes it is replaced by hippuric acid; but although I have frequently verified the former, I have as constantly failed to confirm the latter statement of Lehmann's. In the case of saccharine urine from injury to the head (p. 446), during the first few days there was a total absence of uric acid in the man's urine. In albuminuria I have frequently found the uric acid greatly diminished, and absolutely wanting in two cases. It is said also to be deficient in the urine of cholera. In chlorosis, anæmia, and hysteria it is likewise decreased. The excretion of uric acid is diminished before the outbreak of the paroxysm of gout, but in this case it is known to accumulate in the blood. Dr. Garrod has frequently obtained crystals of uric acid from the serum of the blood of gouty patients. His method is to take from one to two fluid-drachms of the serum of blood, and put it into a flattened glass dish or capsule, about three inches in diameter, and one-third of an inch in depth; to this is added ordinary strong acetic acid, in the proportion of six minims to each fluid-drachm of serum, which usually causes the evolution of a few bubbles of gas. When the fluids are well mixed, is introduced a very fine thread, consisting of from one to three ultimate fibres, about an inch in length, from a piece of unwashed huckaback or other linen fabric, which should be depressed by means of a small rod. The glass is then put aside in a moderately warm place, until the serum is quite set and almost dry; the mantel-piece in a room of the ordinary temperature answers very well, the time varying from twenty-four to forty-eight hours, depending on the warmth and dryness of the atmosphere.

In normal blood the acid occurs in such small quantity that it is scarcely possible to detect it.

Uric acid has also been obtained from the serum of a blister placed on a gouty patient, but not when it has been placed over the goutily inflamed part—(Garrod). Both before and during the attack of gout the uric acid is diminished in the urine, but no sooner does convalescence begin than it rises even beyond the normal standard. From the twenty-four hours' urine of a convalescent patient, who was under Dr. Parkes in the University College Hospital, I obtained no less than 1·15 grammes (17·825 grains) of uric acid—double the amount the man would probably have passed under similar

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—ED. *Med. Times and Gaz.*

circumstances had the uric acid not been retained in his system before and during the paroxysm.

During the last two years I have had, at intervals of about three or four months, a patient, aged 65, under treatment, who has been a martyr to very severe paroxysms of gout for, at least, twenty years. All the joints of his hands and feet are distorted from deposits, and he has no less than four well-marked concretions of the urate of soda in his right ear. This man's urine has been carefully analysed on several occasions, and the following is a sample of the results. The attack I now allude to began on November 15, 1863, was at its height on the 21st, and had disappeared on December 10.

Twenty-four Hours' Urine.

	November 18, Third Day.	November 21, Climax.	December 7, nearly Convalescent.
Quantity. .	2000 c.c.	1062 c.c.	1620 c.c.
Specific gravity	1011	1010	1008
Uric acid. .	0·095	0·023	0·178

On the third day of the attack he came to the Hospital, which was November 18, and was put upon the following mixture:—℞. Vini colchici, ʒss.; liq. potassæ, ♏vi.; Aquæ, ʒss., M., ter in die.

It would appear, then, as immediately after the gouty paroxysm has passed the uric acid increases in the urine, the increase of that ingredient in the course of the paroxysm ought to be considered as a favourable symptom.

The gouty deposits commonly called chalk stones, and which are so frequently met with in all cases of long standing, are not chalk at all, but consist of crystals of urate of soda. (Garrod.)

A deposit of urate of soda in the cartilage of the joints precedes or accompanies every attack of gout. Hence arises the necessity of freeing the system of this product. Some persons have thought, that as colchicum—the favourite remedy for gout—instead of increasing the excretion of uric acid, diminishes it, and not it alone, but even the urea, the benefits derived from this agent must, if they are not entirely imaginary, be due to some different cause than its action upon uric acid. I, however, believe that colchicum does act upon the uric acid, but not, as is usually imagined, by merely affecting its excretion. On the contrary, I believe that by some means or other it arrests its formation, and that it is on this account that an occasional dose of colchicum during the intervals is found to ward off the attack of gout.

Dr. Ranke has shown that the formation of uric acid is diminished by quinine, and Dr. G. Pringle, while working in my laboratory, made some experiments upon himself, the results of which are quite confirmatory of Dr. Ranke's views.

January, 1858. ——. Age 24, healthy and well developed.

Twenty-four Hours' Urine.

Diet	Quantity of urine.	Sp. gr.	Reaction.	Quantity of uric acid.
	c.c.			grammes. grains.
Mixed; drink only water, neither tea nor coffee .	656	1031	acid.	1·39 = 21·545
After taking during five days 10 grains of quinine daily; food and drink as before . . .	665		,,	0·724 = 11·222
The same after seven days of quinine treatment .	602		,,	0·577 = 8·945
The effect of the quinine did not pass off immediately.				
Diet as before; quinine discontinued for two days	600	1036	,,	0·66 = 10·230
Do., do., do., three days .	525	1033	,,	0·792 = 11·276

Quinine combined with colchicum was Bequerel's favourite prescription for gout. Curiously enough, too, he used to combine it with digitalis, another substance which has the effect of diminishing the uric acid. A good formula is—℞ Ext. colchici, gr. x.; digitalini, gr. ½; quinæ sulphatis, ʒj; conf. rosæ, q. s. Fiat massa et divide in pilulas, xij.; sumat unam ter in die.

While in Munich, a few years ago, when talking to Professor Pfeuffer regarding his treatment of gout, he told me that he found the acetate of potash a good remedy, and it so happens that this also has the effect of diminishing the amount of urea and uric acid in the urine; and, as I said with reference to colchicum, I believe it is not simply the elimination of these substances which is arrested, but their actual formation that is checked.

I have already pointed out how animal diet increases uric acid. I may mention that there are certain other remedies besides those already spoken of, which diminish the formation of uric acid; these are atropine and cod-liver oil. Tea and coffee produce the same effect. On the other hand, there are some which, although they do not diminish its formation, yet lessen the quantity in the system by increasing its elimination from the body. Among these may be mentioned the phosphate of soda, and the liquor and bicarbonate of potash. Both in the urine of gout and of rheumatism the uric acid has been found increased after the administration of liquor potassæ, as well as after a few doses of the simple carbonate of potash, and it is not at all improbable that the beneficial action of these remedies in the above-named diseases may in a measure be due to their hastening the neutralisation and elimination of the acid. Indeed, were I asked to give an idea of the pathology of gout and rheumatism, I would say that all our knowledge as yet tends in one direction—namely, to show that both gout and rheumatism are due to the presence of an abnormal amount of acid in the system; most probably uric acid in the one case, lactic acid in the other. I have repeated Richardson's experiments of injecting lactic acid under the skin of dogs, and although not always successful, have on three or four occasions produced artificial articular rheumatism. On one occasion I even got the endocarditis he has so ably described.

Uric acid is not only eliminated by the kidneys, but by the skin, and even by the lungs; so that, by increasing the action of the skin and pulmonary exhalation, we may aid its elimination from the blood. Experience has shown that whatever interferes with cutaneous transpiration augments the quantity of uric acid in the urine. The effect of cold has been already alluded to. Skin diseases have a similar effect. In eczema and psoriasis, uric acid increases in the urine, and in the pustules of pemphigus crystals of it have been detected (Malmeston). In the urine of a severe case of pemphigus, under the care of Dr. Hughlings Jackson, which he sent to me to examine, I found 17 grains of uric acid to the 32 oz. The urine was of a dirty brown colour, with a very acid reaction, and had a specific gravity of 1023.

With regard to the influence of alcoholic drinks, beer included, it is interesting to observe how they lessen the urea and increase the uric acid in the urine; whereas, with tea and coffee, the reverse occurs: they lessen the uric acid and increase the urea. Then, again, there are substances which act similarly on both uric acid and urea. The acetate of potash, colchicum, quinine, and cod-liver oil, for example, diminish, while bicarbonate of potash and liquor potassæ increase both.

These facts furnish us with several hints which may be turned to good account in practice. Remedies we possess in abundance, if we only knew how to apply them.

When I hear men saying that the medicines they are employing are little better than useless, it often occurs to me that they are, perhaps, not far wrong, although the want of success may not be, as they "vainly" imagine, due to the impotence of remedies, but to the want of knowledge and judgment brought to bear on the employment of them. A man needs only to pay a little attention to the teachings of physiology to learn what powerful weapons nature has put into his hands. Like all weapons, however, they may be turned to good or to evil account, according to the knowledge or the inclination of their employer. I would even venture to suggest to our sceptical brethren that it would, perhaps, be wiser if, before passing judgment on any particular remedy, they first made themselves familiar with the how, when, and why to employ it.

TINCTURE OF ALOES AS AN APPLICATION TO WOUNDS.—M. Delioux observes that, notwithstanding the great repute of aloes as an external application in former times, it is now seldom used, and that he was induced to give it a trial in consequence of its great utility in veterinary practice. After trying it in combination with other balsamic substances, he has come to use it alone, finding a saturated tincture made with one part of aloes and two of alcohol to be the best preparation. Suppurating wounds, when at all of an atonic character, are to be dressed by means of charpie dipped in the tincture, the application causing little or no pain. Old and obstinate ulcers, and ulcers from decubitus in cachetic subject are much benefited by it. It is useful also to bear in mind its great cicatrising power in wounds and ulcers occurring in our domestic animals, especially the horse. Erosures and gallings by its aid are prevented degenerating into ulcers.—*Bull. de Thérap.*, vol. 66, p. 28.

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ORIGINAL COMMUNICATIONS.

THE RADICAL CURE OF INGUINAL RUPTURE.

By JOHN WOOD, F.R.C.S.,
Assistant-Surgeon to King's College Hospital.

No. VII.

ON THE CHOICE OF CASES FOR THE RADICAL CURE.

WHEN a Surgeon is consulted as to the treatment to be adopted in a case of rupture it has been a practice too commonly adopted to turn over the case entirely to the truss makers, with the idea that the province of the Surgeon has ceased with the decision that it is really a case of rupture.

The choice of the mechanical support has thus devolved upon those who, however skilful they may be in adapting contrivances, have usually so imperfect an acquaintance with the anatomy of the parts, the vital properties of the tissues, and the peculiarities of the different kinds of rupture, that the case is treated much more in the interest of a particular form of truss or a patent principle than in that of the patient. The mechanism also is often adapted for a requirement entirely suppositious, and unfitted for or detrimental to the case in question. Hence the recurring disappointments, the futile trials, and expensive failures which commonly await the hopes of the unfortunate seeking relief in the columns of the advertising newspaper. My own belief is, that the shape and size of the pad is of more importance than the means adopted for keeping it in position. All that is required of the latter is that it shall afford a sufficient and steady backward pressure upon the pad, in the right place, and *perfectly level* to the surface upon which it is applied. In most cases in which the truss does any good whatever, this is accomplished by the use of a spring of one kind or other operating from the back of the patient.

Occasionally, by a well-fitted truss of the right kind, and with great care and attention on the part of the patient or his friends, the rupture may be cured in young persons, after a year or two of constant and unremitting pressure. But when it is considered that the commencement of the cure dates from the time that the bowel was last in the sac, it will be seen that the cases in which a truss effects anything more than to keep the rupture manageable and supportable are not numerous. And there are many cases in which, from the shape and size of the hernial openings, the presence of a chronic cough or constipation, the force and advantage of the abdominal muscles, the peculiar conformation of the loins, or the general laxity of the abdominal connexions, no truss is efficacious beyond a short period, and under perfect quietude of body and limb.

All trusses are liable to fail at critical periods of position or exertion in which the patient may require all his bodily activity to extricate himself from an unpleasant or dangerous position. It is under such circumstances that strangulation, with all its attendant horrors, awaits the patient, and an operation incomparably more severe and dangerous than that for the radical cure is so frequently demanded in the attempt to save him from a painful death. All who are acquainted with Hospital statistics know how unfavourable they are in reference to the operation for strangulated hernia, how frequently it is called for, and the disadvantageous effect it usually has upon the condition of the rupture afterwards, even when its purpose of saving life has been successfully accomplished.

There are two classes of cases in which the idea of an operation for the radical cure may be entertained. In the first class are the more severe cases in which no truss pressure or retaining bandage of any kind is available to keep up the rupture and to prevent its getting larger, more painful, more inconvenient, and more disabling to the patient. These cases are usually found to be the first candidates for any method of treatment which may offer a reasonable chance of success. And for the same reasons which render them usually uncontrollable by trusses, they are the severest test of any new operation as well as the readiest subjects of it. The outcome of my experience in operating upon these aggravated cases is that a complete cure may be looked for in children and boys under 14 years, if not by one operation, by a repetition of it, and that the symptoms which ensue in them are usually so mild that the operation may be said to be quite a safe one when skilfully performed.

In adult ruptures of this severe form and large size the chances of entire success are less favourable, and the symptoms following the operation are more severe. In some, however, I have entirely succeeded, and almost all the cases have been, at any rate, so far ameliorated that a truss could be worn more effectively after the operation. In such cases the increased necessity for some means of rendering existence tolerable may fairly be considered to balance the increased risk of an operation. After 50 years of age I do not think any operation advisable as a general rule. In the earlier part of my experience a considerable proportion of these large cases was operated on, the effect being to help to reduce the proportion of successful cases, making it less than it has been in my later operations. Improvements suggested by continued experience have also, no doubt, tended to increase the per-centage of successful cases.

In the second class of cases I would place those in which a truss is more or less available in retaining the rupture. This may again be subdivided into those which easily slip down and are of considerable size, not at all times retained by the truss, and are apt to give occasionally great trouble, inconvenience, and danger by becoming strangulated; and those which are perfectly under control, easily and completely retained, and of inconsiderable size. Of the former of these it may be said that, at whatsoever age occurring, the chances of a complete closure of the hernial canal by truss pressure only are very small indeed, if not absolutely *nil*. In the latter, if occurring in early life, the chances of a cure by proper truss pressure are considerable. It is difficult to arrive at a correct conclusion with respect to the proportion of cures obtained by truss pressure, for various and evident reasons, among which an important element, viz., the dubiety of a correct diagnosis in the first instance, may fairly be reckoned. In both these kinds, however, the experience already gathered renders it indubitable that, by an operation of a perfectly safe character, and attended with little pain and personal inconvenience, the chances of a complete cure are increased 60 to 70 per cent.; that partial failure brings comparative improvement; and that the inconveniences and risks of an operation, with a choice of time and circumstance, are, to say the least, not so great as those from strangulation, obstruction, inflammation, or injury which may happen in the course of a ruptured patient's life. In the case of young children it may be put even stronger than this; the doubtful result of truss pressure, so difficult to be effectively and constantly applied, and its liability to be interrupted by illness and by an accidental descent of the viscera, may be changed almost into a certainty of success by a proceeding involving hardly any risk when skilfully applied under favourable circumstances, and attended with little pain and no deterioration of the patient's health and strength.

It will be easily gathered from the foregoing observations that while in some cases the Surgeon will be justified in recommending strongly the adoption of the operation after a trial of truss-pressure, in others it must always be left to the decision of the patient himself or his friends, after a careful and impartial statement of the chances of an operation in his individual case.

The circumstances and habits of a patient, as well as his bodily condition and conformation, will, in many cases, determine the propriety of an operative interference. If he has to get his living by bodily exertion; if his habits are active; his amusements athletic; his profession requiring bodily completeness, strength, and ability; his prospects in life or probable position far from Surgical assistance, as in emigrating or colonising—all these must be taken fairly into consideration in placing his position before the patient, or in advising his decision.

On the other hand, the severity of the case, its complicated character, and especially the age of the patient, should have each its due influence upon the mind of a Surgeon tending to negative the proposition for an operation. One chief rule, I may again mention in this place, and that is, entire reducibility of the contents of the rupture is (with very few exceptions) an indispensable condition of the operation for the radical cure of hernia. In the female, as a general rule, an operation is less called for, unless the rupture be so troublesome, painful, large, and disabling as to be burdensome to life, or the patient so young as to make the cure almost certain, operative interference is not to be advised, or may be left to the patient's own choice when the "pros" and "cons" are fairly stated to her.

In all cases in which the operation for the radical cure is contemplated it is very important to institute a searching exa-

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mination of the thoracic and abdominal viscera to ascertain whether there be any lurking disease which may influence the success or safety of the operation. The tongue and pulse should be examined, the temperament and build scrutinised, the history of the patient's illnesses listened to, the heart and lung sounds ascertained by the stethoscope, and the urine carefully examined. The latter I would particularly enjoin, since the presence of phosphates, oxalates, or albumen may indicate the existence of lurking disease previously unsuspected by the patient. The presence of albumen especially indicates a condition of things in which it would be hazardous to attempt any operation not absolutely needed to save life, and especially those which may more or less affect the abdominal cavity.

In the female the condition of the ovarian and uterine functions should be ascertained; the liability of these organs to derangement, and their effect upon the abdominal circulation when disordered has an important bearing upon the propriety of an operation of this kind. In conclusion, it must be always kept in mind that operations for the relief of inconvenience, disability, and deformity belong to a class differing much from those which are performed under the more necessitous circumstances which endanger life, and cannot with propriety be pressed by the Surgeon upon the acceptance of his patient so strongly as where the risk of refusal is much greater. The patient himself, or his friends, must be placed in a position to decide for themselves upon the main bearings of the question.

At the same time, such operations are usually of a kind in themselves not so severe nor so dangerous to life as those which are usually considered as peremptory, and may, therefore, be recommended with less hesitation if there be a reasonable prospect of the patient escaping the accidental complications which may ensue upon any operative interference whatever. The probability of such accidental increase of risk from erysipelas, pyæmia, typhoid symptoms, Hospital gangrene, and the like, should be estimated by the Surgeon when choosing the time and place of operation. Sickly seasons should be avoided, and, as a rule, the hot and autumnal months, which, from the greater frequency of diarrhœa and other abdominal disorders, are much more unfavourable for abdominal and perineal operations than other seasons of the year. Operations of the nature of that for the cure of rupture can be fixed at the most convenient season usually, and may often be postponed with benefit to the patient.

With these precautions—good judgment, a sufficient amount of practical anatomical knowledge, coolness and skill in the use of instruments—the conscientious Surgeon may be assured that the operations for the radical cure of rupture described in the preceding papers are at any rate as safe and as successful as any that have been devised of like character and with like purposes, and which are admitted, without hesitation, among the armamenta of modern Surgery.

4, Montagu-street, Russell-square.

ON THE

ADMINISTRATION OF CHLOROFORM IN CASES OF EPILEPSY AND CHOREA.

By WM. MURRAY, M.D.,

Physician to the Newcastle Dispensary and Hospital for Sick Children.

The two diseases under consideration are admirably adapted for comparison and contrast—for comparison because their chief symptoms, and, perhaps, their physiological development, are nearly allied; for contrast because their course, termination, treatment, and its effects so widely differ. Epilepsy is a convulsive disease, resulting primarily no doubt, from irritability of nervous centres which discharge enormous shocks of nervous force, and then leave the cerebro-spinal system without controlling power to direct the force emitted. In its convulsive movements, and in that state of nervous system which, while generating nervous force, does not provide for the disposal of it, it closely resembles chorea. But in all that pertains to its fatality as a disease, its ultimate effects, the imminent peril in which it constantly exposes its victim, and the chances of its removal by treatment, it stands out in gloomy contrast with chorea, which is generally a slight and short disease easily amenable to treatment.

The two cases to which I beg to call attention are remarkable for the manner in which they run counter to the above rule, inasmuch as the one of chorea, at first mild, became one of the most frightful cases it has been my lot to witness, and in spite of all our efforts went on to a fatal termination; while the other, of epilepsy, when first seen, though one of the gravest kind, and of very long standing, has been influenced by treatment in a very striking manner. As the chief agent used in both cases was the same, it seemed proper to me to lay the results of its action before the Profession.

At 10.30 one Saturday evening I was called to see a young lady, and found her suffering from choraic movements of the arms, face, and legs, and manifesting by jocular remarks evident hysterical symptoms. A somewhat confused account of her having experienced a shock to her feelings a short time before; sedentary occupation as a governess; and a hurried journey homeward from the West of England, during which the chorea set in, was all the history I obtained of the case.

The bowels were confined and the tongue coated, so I began treatment by a brisk mercurial purge, followed by an aloetic draught the following morning. On the Sunday evening and Monday morning she was much relieved, but had slept badly. I then prescribed a mixture of hyoscyamus and valerian with a pill of aloes and sulphate of iron, and a dose of chlorodyne at night. She slept better on Monday night, but was restless on Tuesday, and slept none at night. On the Wednesday and Thursday the choraic movements increased, and she had had no sleep, in spite of frequent ablutions of cold and hot water, large doses of hyoscyamus and chlorodyne. The restlessness now being severe, and the chorea violent, while there was an entire absence of pain in the head, I ordered, and she took, grain doses of morphia, to be repeated every two or three hours until sleep was induced; but no relief whatever followed. Diarrhœa set in, and the menstrual flow appeared on the Saturday morning. At one o'clock on that day things looked somewhat gloomy, as she had not slept for four nights, and the chorea had become so violent that she had to be held or tied to keep her in bed, I ventured to administer chloroform, which was followed by a placid sleep for an hour; it was administered a second time with the same results. As she became violently choraic and convulsed after waking each time, it was determined to continue the administration of chloroform without intermission until a decided effect was produced. This was done for no less than fourteen or fifteen hours with but one intermission of half an hour to give food. At the end of that time she remained, after removing the chloroform, perfectly quiet, became quite collected in her mind, and remained so to the last. It was remarkable that after the first hour or two had passed, a very small quantity of choloroform was found to obtain the desired effect, and for the last six or eight hours a very few drops per hour were sufficient to keep up its sedative action. When she came to herself, so collected in mind and so free from choraic movements, every effort was made to sustain the exhausted powers of life by nutritive and stimulating diet; but in spite of our efforts, the thread of life gave way, and though she remained calm and peaceful during the Sunday and Monday morning, she sank in the after part of that day, about forty hours after leaving off the chloroform.

I leave this case in all its obscurity as to diagnosis, etiology, and pathology, and proceed to narrate the other instance, in which large quantities of the same drug have been administered.

(No post-mortem examination obtained.)

Epilepsy.—John B., aged 69 years, is a powerfully-built man, and wears well for his age. Has been the subject of epileptic fits of a very severe nature for nearly thirty years. The history of his case runs thus:—Till he reached his 40th year there was not, he says, a healthier or stronger man to be found. At that time, being of a desponding temperament, he was severely tried by grief, and had his first epileptic fit; a second attack after two years' interval has been followed by an annual seizure till four years ago, when, falling down in a fit in the street, he was taken to the Manor Police Station, and treated (as if intoxicated) by copious pailfuls of cold water. Since this severe and ill-advised treatment at the hands of these hasty and heroic therapeutists, our patient has been seized almost weekly by very severe epileptic fits; sometimes they are delayed for two weeks, but whenever they are so delayed, the longer interval is sure to be followed by a succession of several severe fits in one day. Very often the fits have occurred several times in one week, and he has never felt himself safe from them. Ever since the first fit, but especially during the last four years, his memory has been weakened, and most notably so before and after each fit. He had lost delight in all his favourite pursuits, he has been unable to read or to think from s= utter want of power of concentration,

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and when a fit was about to occur, during the preceding day, he became nervous, agitated, and incapacitated to do the simplest things—unable, as he says, "even to light his pipe." Before some of the attacks he has a distinct warning, and has been able occasionally, by drinking hot and other fluids, to ward off the attacks. The warning consists of a fluttering over the cardiac region, accompanied by palpitation. As has been before hinted, some of the attacks are single and some are numerous, following each other in rapid succession for several hours.

He positively declares that scarcely a day has passed of late without some symptoms reminding him forcibly of his malady; the chief of these have been dizziness, apathy, wandering, irritability, and incapacity for the slightest exertion. During the thirty years of his disease he declares that he has wandered about the country and had advice from eight Dispensaries, ten Infirmaries, and many private Practitioners, without the slightest relief.

On November 15 last, he became my patient at the Dispensary, having had a fit on the eighth day of that month. For several reasons which I need not mention here, I looked upon his case as likely to be benefited by often repeated and somewhat powerful doses of a sedative, and chose to use chloroform as the agent. He began treatment by inhaling about ten drops from a linen cloth three times a day. Each administration was followed by a slight temporary excitement and partial loss of consciousness. I saw him once a week for four weeks, and each time he reported himself as relieved of the sensations and symptoms which had hitherto marred his health during the intervals of his fits. At the end of four weeks and three days, he had a severe attack, followed by a succession of lesser fits for six or eight hours. He was advised to persevere in the use of the chloroform, which he willingly did. During the next four weeks he frequently spoke of the entire relief he had experienced on the removal of all his sensations and symptoms. Exactly four weeks and four days after this he had another severe fit, which was followed by one or two minor attacks.

The interval now reached its seventh week, and the man declared he never felt better in his life. He says he had new energy, and was entirely free from the troublesome symptoms which before interfered with his comfort between the graver epochs of his malady. As the chloroform at this time was followed by sickness and shivering, it was deemed advisable to remit the treatment and see what had been done, and nine weeks' interval now elapsed before another slight attack occurred, but no bad symptoms exist in the interval, and he declares himself very well.

In conclusion, I may state that the chloroform has had no bad effect beyond the aggravation of a tendency to asthma from which he occasionally suffers. All other treatment except attention to the state of the secretions, diet, and regimen has been avoided. I may mention here that at an early period in the treatment, when he was subject to the disagreeable symptoms, a good dose of mugwort immediately dispelled them, as it often does in the case of even graver attacks in some patients. I have not read or heard of the above mode of treating this disease, but would be glad to be referred to any such on record. In this one case it has decidedly influenced the disease in prolonging the interval from one to four, five, eight, and ten weeks, in addition to which it has removed very decidedly the distressing symptoms of the intervals, and thus increased to no small extent the man's present comfort.

THE *Melbourne Argus* of March 10, 1864, gives a lecture, by Dr. W. Thomson, asserting the identity of measles and the bovine pleuro-pneumonia:—"In both there is the usual period of sickening, marked by the fever and ague, and soon followed in both, after some days of indefinite illness, by cough, cold, watering eyes, clammy mouth, and dry, wiry skin. In the human subject the period of eruption now sets in, and of thickened respiration. In the animal there is the corresponding bronchial disturbance, and 'the bran-like dust in the coat,' owing to desquamation of the skin. The disease upon this is on the brink of its third stage. Bronchitis, merging into pneumonia, expectoration, hepatisation, and fœtid diarrhœa, recur in rapid succession or simultaneously, and the doom of both victims is pronounced. The next step for the one is the churchyard, for the other the butcher. When the last epidemic of rubeola visited this colony, pleuro-pneumonia spread simultaneously."

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

SAMARITAN HOSPITAL.

SIX CASES OF OVARIOTOMY.

(Under the care of Mr. SPENCER WELLS.)

(Continued from page 588.)

Case 4.—Ovariotomy—Pelvic Abscess—Recovery.

A married woman, with some red Indian blood, 32 years of age, was sent to Mr. Wells for ovariotomy by Mr. Stretton, of Beverley, and was admitted March 22, 1864. A large ovarian cyst of between four and five years' growth had been tapped in Guy's Hospital four months before. Twenty-seven pints of clear fluid were then removed, and a "hard substance" left. It was two months before there was much increase, but latterly the increase had been rapid. The patient was healthy in appearance, but there were signs of cardiac disease which led to serious doubts as to the propriety of performing ovariotomy—viz., a small pulse, occasionally intermitting, a loud second sound, and a soft mitral murmur. But as the lungs were healthy, the urine normal, and there was no œdema of the legs, ovariotomy was performed on April 4. Dr. Koepl, of Brussels; Dr. Pickford, of Brighton; Dr. King, of Hull; Mr. Judd, Mr. Lord, etc., were present. An incision of only three inches long, midway between umbilicus and symphysis pubis, through a thick layer of fat exposed a non-adherent cyst, which was tapped, emptied, and withdrawn. But it was found that there was no distinct pedicle, the cyst being fixed between the layers of the right broad ligament in the iliac fossa, and close up to the bladder. Accordingly no attempt to isolate it was made, but the neck of the cyst was inclosed in a large clamp, and fixed outside. The left ovary having been found to be healthy, the wound was closed in the usual manner. Twelve pints of fluid had been removed from the cyst, which, with the secondary growths, weighed about two pounds.

The patient went on very well for three days. On the fourth day the clamp was removed. Some bloody discharge came on from the uterus in the morning, and in the afternoon there was a similar discharge in considerable quantity from the opening left for the pedicle. This continued both from the wound and the vagina during the three following days, when the uterine discharge ceased, and that from the pedicle became more purulent. Examination by the vagina and pressure proved that the collection had its seat on the loose cellular tissue about the right broad ligament. On the ninth day the slough had nearly all separated from the pedicle, but a very free, dark, fetid, serous discharge continued for some days later. This gradually lessened in quantity, became less fetid, more purulent, and at last ceased altogether. She was discharged May 17 in very good health.

Case 5.—Ovariotomy—Pedicle returned—Death from Peritonitis.

A childless, married woman, 50 years of age, was sent to Mr. Wells in November, 1863, by Dr. Guy, of Doncaster. She had a large multilocular ovarian tumour of very rapid growth, having been first detected less than three months before. There was œdema of the left leg, commencing emaciation, and a very unhealthy aspect: A course of treatment was advised with the hope of improving the general health, and she returned home; but increase still going on, she came to town again, and was admitted January 30, 1864. The largest cyst was tapped on February 2, and twenty-four pints of thick mucoid fluid were removed. Groups of secondary cysts were then felt on both sides, those in the right iliac region appearing to be firmly fixed there. She improved in health and left the Hospital February 12. On March 29 she was readmitted, suffering much distress from distension. She was tapped on the 31st, and eighteen pints of dark fluid were removed, with some relief, but with no great diminution in the size of the abdomen. Some bronchial congestion followed, but subsided, and (as the only hope of saving life) ovariotomy was performed on April 14. Dr. Koepl, of Brussels; Dr. Guy, of Doncaster; Dr. Playfair, etc., were present. An incision was made eight inches downwards from the umbilicus, through the very fat and

œdematous abdominal wall, and some extensive adhesions anteriorly were easily separated by the hand. A piece of adhering omentum about three inches broad was also separated. During the separation, the cyst gave way, but was easily removed, and a very narrow pedicle was secured temporarily by a clamp. The tumour was cut away, the peritoneal cavity cleaned by free sponging, the left ovary found to be healthy, and the wound closed as usual after securing the pedicle behind the clamp by a silk ligature (which was cut off short), removing the clamp, and allowing the pedicle and ligature to sink into the abdomen. Twenty-six pints of fluid were collected, and the semi-solid mass weighed seven pounds and a-half.

With the exception of occasional lumbar pains, she went on very well for twenty-four hours. The second night she also slept well, but early next morning vomiting came on, with tympanites, scanty concentrated urine, and the pulse rose to 140. All the sutures were removed forty-four hours after operation, as the wound was accurately united throughout. Some relief was afforded in the afternoon by the passage of a large quantity of flatus through a long tube passed into the rectum; but at night vomiting of dark greenish fluid became increasingly urgent, and she died exhausted sixty-four hours after operation.

The body was examined by Dr. Barratt. The right cavities of the heart contained adherent fibrinous clots. All the blood elsewhere was fluid and blackish in colour. The liver was very fatty; the gall bladder distended. About two pints of dark red serum had been effused into the peritoneal cavity, which contained neither blood nor ovarian fluid. The recent lymph was confined entirely to the lower and back part of the abdomen and pelvis; the peritonitis radiating from the pedicle, not from the wound in the abdominal wall, which was completely united, nor from a surface where the cyst had been adherent. There was no such attempt to capsulate the pedicle and ligature as there probably would have been had the patient been in better health. Mr. Wells expressed his opinion, when exhibiting the specimen at the Pathological Society, that the chances of recovery would have been greater had it been possible to keep the end of the pedicle outside the abdomen; and he stated that the trials which he had made of returning the pedicle seemed to teach that in young or healthy subjects, where circumscribed peritonitis and effusion of plastic lymph might be expected, the practice was a good one; but in debilitated or cachectic patients, in whom diffuse peritonitis and effusion of serum or of aplastic lymph might be feared, it would be safer (when the clamp could not be used) to leave the ends of the ligatures hanging out through the wound, and thus secure an opening for the escape of effused serum, and for the ligature itself with the tissues enclosed in it after their separation.

Case 6.—Multilocular Ovarian Cyst—Ovariotomy—Pedicle Returned—Recovery.

A married woman, 46 years of age, came from Banbury to consult Mr. Wells in September, 1863. She was in feeble health, and had an ovarian tumour of from two to three years' growth, filling the greater part of the abdomen. It was free from adhesions anteriorly, but the uterus was slightly pulled upwards. She was admitted to Hospital, and six and a-half pints of opalescent albuminous fluid were removed by tapping from the largest cyst on October 26. The uterus felt more free after the tapping, she became much more comfortable, returned to the country, improved in health, and was readmitted for operation on April 23. The connections between the tumour and the uterus appeared to be close anteriorly; but as there was no other unfavourable condition, Ovariotomy was performed on May 2. Dr. Campbell, of Boston, United States; Mr. Griffin, of Banbury; Dr. Wallace, of Aberdeen, &c., were present. Dr. Parson administered chloroform. An incision, five inches long from one inch below the unbilicus, exposed a non-adherent cyst, which was tapped, emptied, and withdrawn. The cyst was closely attached to the breadth of about three fingers to the right side of the uterus. The connecting medium was transfixed by a needle carrying a strong silk ligature, with which the broad ligament was tied in two halves, and the tumour was then cut away close to the ligatures, the ends being cut off short and allowed to sink inwards with the uterus and left ovary, which was healthy. The only bleeding was slight venous oozing from the sides of the incision. The wound was closed in the usual manner.

She required rather more than the usual amount of opium on account of pain, vomited occasionally, and was much troubled with flatulence during the first and second day; but after this she recovered well. All the sutures were removed on the 5th (three days after the operation), the wound being accurately united throughout by first intention. The bowels acted on the 9th, and she was discharged in good health on the 21st—less than three weeks after operation.

Mr. Wells operated on another case on May 23. The patient was going on remarkably well on the 31st. The report will appear, with others, in a future number.

THE LONDON HOSPITAL.

ABSTRACT OF A CLINICAL LECTURE ON A CASE OF INTESTINAL OBSTRUCTION, FOR THE RELIEF OF WHICH AMUSSAT'S OPERATION WAS PERFORMED IN DECEMBER, 1861, AFTER EIGHTEEN DAYS OF CONSTIPATION. (a)

By JOHN ADAMS, Surgeon to the Hospital.

GENTLEMEN,—I present before you the poor man on whom I operated two years and a-half since in consequence of obstinate constipation lasting eighteen days, and with entire success, as you may now see. The man, although somewhat haggard in appearance, has nevertheless a not very unhealthy aspect, and has evidently been well nourished ever since the operation. The case is unusually interesting because of the long duration of life after an opening has been made into the descending colon—an operation attended, as far as my experience goes, with great success, and one performed with such facility and so little risk as to amply justify it in properly selected cases. I am really at a loss to conceive that any objection should be raised against the operation provided a due selection be made of the cases, for the relief is immediate and life may be prolonged to an indefinite period, as in the case before us.

I need only refer you to the former report of the case, and I think you will admit that the urgency of the case, irrespective of the success which has attended the operation, amply justified the means adopted.

The progress of the case since I last addressed you on the subject is this:—Soon after he left the Hospital he passed two small motions by the rectum, his fæces being discharged by the opening in the colon. He continued in fair health until December last, when he suddenly discharged a large quantity of blood per anum, by which he was very much reduced; a small quantity also escaped by the urethra. By this he was much prostrated, and since he has occasionally passed blood in small quantities by the bowel, and blood and pus have escaped by the urethra, the bladder being exceedingly irritable, and incapable of holding but a very small quantity of water, which is very fœtid. He complains of pain in the loins and down his thighs, and appears to be labouring under some progressive disease. On introducing my finger per anum, it is arrested by a very hard mass, which conveys to me the idea of its being situated in the recto-vesical pouch of peritoneum; and my impression is, that the sigmoid flexure of the colon has fallen into the fossa, and is either affected with schirrus, or has become matted by chronic inflammation to the bladder on one side and rectum on the other, and that a communication is established between these viscera by a small ulcer, which now and then becomes closed. The man's appearance and general condition is rather unfavourable to the idea of cancer, and I must own that the opinion expressed is at least problematical. The prognosis is unfavourable, and I shall watch the case as long as I can, but I shall not be able to detain him in the Hospital.

I wish you to look particularly at the opening in the left loin: it is much larger than is usually found in such cases; this is attributable to sloughing, which occurred after the operation. A large quantity of florid mucous membrane, in the centre of which is the opening into the gut, protrudes, and it is remarkable how readily it recedes when he lies on the opposite side. He retains it by a simple belt, which he removes when his bowels act. It is also remarkable that he gets a diurnal evacuation immediately after his breakfast, and has at this time a desire to evacuate. On the contrary, when the fæces are liquid, he possesses no control over the bowels, and he has not the premonitory desire to empty the bowels.

(a) See *Medical Times and Gazette*, April 12, 1862.

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BIRMINGHAM GENERAL HOSPITAL.

ANEURISM OF THE BASILAR ARTERY FATAL BY RUPTURE AND EXTRAVASATION OF BLOOD.

(Under the care of Dr. JAMES RUSSELL.)

The following case needs little comment. The age of the patient (28), conjoined with the circumstances that death was caused by rupture of the aneurism, and that no disease was found in the coats of the cerebral arteries, are in accordance with Dr. Gull's observation ("Guy's Hospital Reports," 1859), that "in the later periods of life aneurism is not unfrequently found associated with more or less extensive disease of the cerebral vessels, to which the symptoms and the fatal result may be owing, the aneurism being an accidental and not important concomitant;" whilst in younger subjects "aneurism commonly occurs without disease of the vessels generally, and is fatal either from rupture of the sac, or from pressure or softening around it." These facts form the foundation of another important statement by the same Physician: that "whenever young persons die with symptoms of ingravescent apoplexy, and after death large effusion of blood is found, especially if the effusion be over the surface of the brain in the meshes of the pia mater, the presence of an aneurism is probable."

Aneurism of the basilar artery, besides being the most frequent among intracranial aneurisms, is that form which, for obvious reasons, is most likely to be productive of direct symptoms; in the present case no symptoms are reported of earlier date than a week preceding death, and it is very uncertain whether the ailment of which he then complained had any reference to the aneurismal disease, though headache (a symptom specially noticed by Dr. Gull) was prominent. Such immunity is probably explained by the situation of the aneurism; it was buried in the third ventricle, and so entirely free from the various important organs at the base of the brain, that after I had carefully examined the arteries of the base, I remained ignorant of its presence until I had nearly ended the dissection.

The occupation of the patient, that of a labourer, agrees with a suggestion by the the author I have already quoted,—"that mechanical causes, acting locally, have much to do with the origin of the disease;" and it is worthy of note that rupture of the aneurism took place during bodily effort. Death occurred in four hours and a-half after rupture. Rupture of intracranial aneurism does not necessarily induce the most rapidly fatal form of apoplexy. Of eighteen cases quoted or reported by Dr. Gull, in which the duration of the symptoms is specified, death occurred in less than one hour in six cases; from one to twelve hours in eight; from three days to seven in four. In my case the situation of a portion of the effused blood, by causing compression of the medulla oblongata, determined rapid death.

P. M. aged 28, labourer, of not very temperate habits. He had been ill during the week preceding his death with feverishness and headache. His bowels were much constipated, and required the administration of croton oil for their relief. His brother ascribed his illness to drink. He was perfectly well at the end of the week, and returned to work, when, as he was carrying a hod of bricks, he suddenly fell back to the ground. The attack took place at half-past three. An hour afterwards he was admitted into the Hospital, and was reported by Dr. Anderson, the House Physician, to be quite insensible; his face slightly livid; his breathing noisy and at times gasping, with intervals of tranquil inspiration; his pupils were considerably contracted; no convulsive movements occurred. He died at ten minutes to eight—four hours and twenty minutes from the moment of his seizure.

Autopsy.—Veins of the dura mater rather full; the sinuses contained much liquid blood. At the base of the brain considerable ecchymosis existed beneath the arachnoid around the pons and medulla oblongata, but not perfectly concealing these bodies, extending as far forward as the locus perforatus. The effused blood was entirely removed with the membrane, leaving the surface of the brain uninjured. The fourth ventricle was full of recent coagulum. The tissue of the pons, medulla oblongata, and crura was perfectly sound. There were more bloody points than usual in the right cerebral hemisphere. Each lateral ventricle contained a fresh clot, moulded to the shape of the cavity. The superficial fibres of each thalamus, of the under surface of the corpus callosum, and of the cerebral substance enclosing the ventricles, were roughened rather than torn. The third ventricle was full of blood, and just at its lower part a deep stain of the tissue of its walls drew attention to a small aneurism projecting into the third ventricle, about capable of containing a pea. It sprang from the basilar at its very termination. The coats of the aneurism and of all the arteries at the base were perfectly healthy. The lungs were gorged with bloody fluid, and the large veins of the thorax were full of blood. Heart weighed 12 oz. It was healthy, save that some fat was collected at its base; the mitral valve was contracted; the aortic valves were a little thickened; the interior of the aorta was irregular. Liver, 3 lb., 13 oz. (avoir.) was gorged with dark blood; spleen, 6 oz.; kidneys, 11 oz., deeply livid from congestion, otherwise healthy. The urine in the bladder was clouded by heat and nitric acid; it did not contain sugar.

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Medical Times and Gazette.

SATURDAY, JUNE 4.

ARGUMENT FOR A VETO ON THE LIQUOR TRAFFIC.

The efforts of the teetotallers are unhappily marked by a fanaticism which repels the sober part of society. Most of us shrink from joining in the most laudable effort, if it be necessary to subscribe at the same time to doctrines which are contrary to reason and daily experience. We know that wine and beer properly used are wholesome aliments and beneficent medicines; we know that the excessive and deleterious abuse of them, however deplorable, is no argument for the total destruction of them and the abolition of the trade. Nevertheless, we think the trade ought to be controlled more effectively, and that there are arguments for this control so simple and decisive that we wonder they have never been made proper use of—not even by Dr. F. R. Lees, the ablest and most learned of all the voluminous temperance writers.

Our argument is founded on the existence of the Poor-law. It is sufficiently notorious that the people of any given parish may be divided into two portions—they who pay poor's rates, and they who receive those rates. One portion supports itself; the other, on every emergency, flies to the "parish,"—*i.e.*, to their self-supporting neighbours. If a so-called working-man is out of work he goes to the ratepayers for bread; if he is ill, or his wife or children, he goes to the Parish Doctor, is treated with medicines, or, it may be, wine and beef-tea, at the ratepayers' expense; and when old and helpless, whether from unavoidable misfortune or want of thrift, he accepts such board, lodging, and clothing as the workhouse affords at the ratepayers' cost. Any one who knows the condition of some small struggling ratepayers, and how little they can afford to drink if they are to *pay their Poor's Rates*, must feel that if they have some hardships they ought to have some privilege to match. That the man who pays should have some sort of control over those who receive, is an axiom which we think cannot be disputed.

On the other hand, it is notorious that the rate-eaters—the idle and thriftless, are also most wasteful in this one point—viz., the consumption of alcoholic liquors; and that these

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liquors aggravate tenfold the evils for relief of which they come upon the abstemious ratepayers.

One instance is as good as a dozen. On Monday morning, the 23rd, the writer of this was called up at 3.30 by a person who rang furiously enough to wake up the whole household. He was requested to come directly to a child dying. He went, and found a boy of two, son of a "working man," threatened with convulsions. Cause:—The parents had been out on a Sunday railway excursion the day before, and had let the child drink ale, which had made it ill overnight. The child was attended to, and its parents said that at daybreak they would send to the "parish doctor."

Let us add that it is an acknowledged fact that all out-patients' institutions are most crowded with cases of so-called "diarrhœa," "cholerine," "bilious attacks;" or, in other words, effects of beer and gin, on Mondays.

Now, without pointing out the inconsistency of stepping in by law, and hindering the "working man" from doing any useful work on Sunday, whilst the law gives him every facility for making himself a beast and a burden to his neighbours, let us ask on what grounds can people who get drunk on Sunday demand Medical attendance at the expense of their sober fellow-citizens on Monday?

Our Hospitals and Dispensaries show in large letters the words "Supported by Voluntary Contributions;" and Englishmen glory thereat. But we may point to another place supported by voluntary contributions—the Gin-palace.

Look at this inconsistency! If the "working classes" can support by their drink large temples, as grand as compo can make them, with plate glass, flaring lights, gaudily-dressed young women to serve out the liquors, and fat, portly landlords, who keep gigs and smoke the best of cigars, why, then, should they call upon us to keep up that Dispensary?—that shabby, ricketty, sordid-looking old house, where a committee of sober people bargain for cheap drugs, to be served out by a starved apothecary in a rusty-black coat, who can hardly keep soul and body together? The Dispensary is made necessary by the gin-shop, and they who drink the gin ought to pay for it.

However, let that pass. No one is obliged to subscribe to a Dispensary. We *are* obliged, however, to pay poor's-rates; and we claim that, if we pay, we have a right to some control over those who receive; and, in especial, over that peculiar traffic in which they squander their own earnings, and render it necessary to dip their fingers into the pockets of their sober neighbours.

The "working men," we are told, are free. Let them make us free also. If they are free to drink, let us be free to button up our pockets. But if they claim the right of dipping into our pockets when sick, we claim the right of muzzling their jaws; and the people who pay ought to be found—(unless they be beguiled basely to give up their political trust to the so-called "working men")—too strong for the people that don't pay. Does any one ask, why should the working man be hindered from drinking any more than the man at a club in St. James's-street? Because the working man comes on the rates, and the man at the club does not.

We could, did space permit, follow out this argument into the minutest detail. We have said enough to show that the ratepayers of every parish should have in all equity a *veto* upon all places where the rate-eating portion of the working classes squander what they have, and make themselves and their families recipients of that Poor's rate which is now wrung from the sober and industrious. The liquor traffic will never be abolished, but it may be put under better regulation if the ratepayers will it.

There is not the slightest chance for "the Permissive Prohibitory Bill" which we believe Mr. Lawson and Mr. Bazley are to bring before the House of Commons on June 8. It would be impossible to shut up and confiscate all the public-houses in any district; but it ought to be possible to have a veto on any new ones or on new occupiers, and to close some of the old ones. The results of our own inquiries are these:—If you ask the proprietor of small "weekly" tenements, he will say that his tenants were pretty sober till the new landlord came to the public-house at the corner. They used to be a humdrum *beer*-drinking set of *men*, but since the new landlord had put in plate-glass and flaring gas, and had added other adventitious aids, the whole population, especially the *women*, had taken to *gin*, and rents had got into arrear. It ought to be in the power of the ratepayers once a year to close any house which exercises abnormal and unusual temptation, and does mischief to match.

ALLEGED BREACH OF PROFESSIONAL HONOUR.

It is not often that our Professional brethren are guilty of breaches of Professional honour. They cannot often be accused of violating confidence, of revealing secrets, or of forming and acting upon surmises, based upon imperfect observation, and injurious to the character of those who consult them, and who rely on them as friends.

Yet exceptions will occur from time to time. Some years ago great scandal was caused by a Surgeon, since dead, who informed the friends of a young lady who had consulted him for fistula, that she was not a virgin. Enormous and fruitless misery was caused to many persons by this gratuitous and thoroughly indefensible act of the Surgeon's, who was felt to have gone out of the path of Professional honour.

We are reminded of this painful subject by some remarks of extreme severity which Dr. West has inserted in the third edition of his lectures, lately reviewed in our journal. Dr. West is treating of the practice of excising the clitoris, with the view of preventing a certain vicious habit. He expresses his belief that the prevalence of that habit has been exaggerated, and that the remedy is worthless and unjustifiable. The disease is, if anywhere, in the *mind;* and not to be cured by mutilating the body. But his indignation knows no bounds at the conduct of some members of our Profession, who are alleged to perform this act of mutilation, and to brand their victims with the moral stigma it implies, without a shadow of evidence of the habit for which the operation is supposed to be a remedy.

"I know," he says, "a lady, aged 53, whose youngest child was more than 20 years old, who had suffered from a painful fissure of the anus, for which she underwent the usual operation of dividing the mucous membrane of the fissure. The Surgeon who did this, without saying one word to the lady or to her husband, or hinting in any way what he was about to do, cut off her clitoris. The stump of the amputated clitoris became the seat of pain, such as sometimes follows amputation of a limb, and for months the patient was in a state of almost ceaseless anguish, which, after the lapse of between two and three years, abated, but has not yet altogether ceased. In answer to her inquiries why some other operation had been performed in addition to that which she knew was requisite, after some evasion she at length learned what had been done, and, further, had the humiliation of discovering that the justification of the outrage was, that she was assumed by the Surgeon to be addicted to a vice with the very name and nature of which she was alike unacquainted."

Dr. West is evidently no convert to the degrading £ s. d. doctrines of the *British Medical Journal*. "Our Profession," he continues, "ought to be a noble one. The ring and the sword in some Universities of the Continent still symbolise the knightly vows taken by the candidate for the Doctor's degree; and it is in the spirit of chivalry alone that Medicine can be safely practised. I have written this history in all sadness as a warning to my younger brethren how, if they are not watchful, it is possible, 'as noblest things find basest using,' that they may pervert their talents and degrade their manhood, until they sink so low as to find opportunities for mischief in the practice of their art, instead of occasions for the exercise of that power of healing which is most God-like."

It is of little use to ask who was the Surgeon implicated—whether he were guilty or not; and whether he have any explanation to offer. The true offence—if Dr. West's statement be true—seems to us to have been going out of the proper

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track of professional duty, entertaining ideas which could only spring from a nasty and most prurient imagination, and which, whether well or ill founded, had no relation whatever to the case which the Surgeon was called upon to treat. The subsequent mutilation performed without the knowledge and consent of the patient and her friends, although, as Dr. West calls it, an outrage, and one for which condign damages would be given did the patient think fit to sue for them, is as nothing compared with the primary moral offence out of which it sprung. We need scarcely say that London Surgeons would not like to have it supposed that they often indulge in such filthy imaginings concerning patients who consult them.

THE WEEK.

THE APPROACHING ELECTION AT THE ROYAL COLLEGE OF SURGEONS.

All those Fellows of the Royal College of Surgeons of England who are unwilling that the College shall be governed by an exclusive clique of London Hospital Surgeons will be glad to hear that Mr. Gulliver intends again to offer himself for election into the Council. When Mr. Gulliver's name was passed over by his colleagues in the election into the Court of Examiners he very properly sent in his resignation. It turns out that the resignation was not accepted, so that Mr. Gulliver has been, up to the present time, a member of the Council, although since the election into the Court of Examiners he has not exercised any of the functions of a Councillor. In now offering himself for re-election, he gives all the independent Fellows of the College an opportunity of expressing by their votes their sense of the injustice with which he has been treated, and their determination that the Council of the College of Surgeons shall really represent the Surgeons of England, and the Court of Examiners British Surgical science. We are confident that Mr. Gulliver will meet with powerful and effective support.

"MILK" AND "FLARE" *versus* BUTTER.

A trial in the Vice-Chancellors' Court on May 30 lets us into some of the secrets of the butter trade. An ingenious personage had a process of converting rancid Irish butter into double its weight of best "Dorset;" and the sole agent in this miraculous act of conversion and increase was said to be water. A partner was taken in, whose sense of right and wrong was acutely disturbed at finding that materials known "technically" as "flare" and "milk," but known to untechnical mortals as pig fat and beef fat, were indispensable adjuncts to the water; and, moreover, that the "technical" process did not pay. Hence he desired to extricate himself from the concern, to say nothing of £1500 which he had embarked in it. The Vice-Chancellor gave him very little comfort. We believe that Dr. Ballard has paid considerable attention to the adulteration of butter, and perhaps can tell the world if there be any test, save that of the palate, which will distinguish butter from this counterfeit stuff.

THE EPIDEMIOLOGICAL SOCIETY AND VACCINATION.

A deputation of the Epidemiological Society, consisting of Dr. Milroy (President), Dr. Walter Lewis, Dr. Mackay, R.N., Dr. Francis Bowen, Dr. Camps, and Mr. J. N. Radcliffe (Honorary Secretary), had an interview with the Lord President of the Council and Vice-President on Friday, the 12th inst., and submitted to them a report on vaccination and small-pox. The report states the various points required to make the vaccination acts more efficient. Parents should be compelled, under fine, to register the vaccination of their children. The fact that a child is not vaccinated should be *primâ facie* an offence, and there should be no need to require proof that the parents were served with a vaccination notice in registering the birth of a child. The committee properly advocate *arm-to-arm* vaccination. They also desire that the control of vaccination should be taken from the Poor-law Board and given to the Privy Council.

PARLIAMENTARY.

On Monday, May 30, in the House of Lords, Lord Lyttelton asked the President of the Council a question of which he had given him private notice respecting the intentions of the Government in order to secure the more effectual enforcement of vaccination. The returns of the Registrar-General showed a large amount of preventible disease and of deaths from small-pox, and it was very desirable that something should be done.

The Earl of Shaftesbury said the subject was one which eminently deserved the consideration of the Government. His Lordship, in confirmation of this opinion, quoted some extracts from the report of the Epidemiological Society.

Earl Granville replied to the question of the noble Lord, but his answer was perfectly inaudible.

In the House of Commons the Royal College of Physicians Bill was read a second time.

On Tuesday, in the House of Lords, the Penal Servitude Acts Amendment Bill was read a second time.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE XVIII.—MARCH 12.

Anatomy of the Orang continued.—The tongue of the orang approaches more nearly than that of the chimpanzee to the human form, the circumvallate papillæ being arranged in the form of a V. On the other hand there is no uvula to the soft palate. The stomach is considerably elongated; its cardiac extremity is round; the pyloric portion tubular and curved. Sandifort describes the presence of valvulæ conniventes in the small intestines of the adult orang, but they have not been noticed in the young specimens which have been dissected in this country. There is a long appendix vermiformis to the cæcum. The liver resembles that of man in all its essential features, as does the heart. The origin of the great arteries differs usually from that found in man, and the previously-described great apes, inasmuch as the innominate artery gives rise to the right subclavian and both carotids, and the left subclavian alone arises separately from the aorta. Sandifort, however, found the arrangement of these vessels following the human type. The lungs are entirely undivided into lobes. Owing to the peculiar mode of attachment of the diaphragm, the cavity of the chest is greatly restricted as compared with the same part in the other great apes. The kidneys have only a single papilla.

The brain has about the same volume as the chimpanzee's, the largest measured being twenty-six cubic inches. In all its most important characters it corresponds with those already described; but the height of the cerebral lobes in proportion to their length is decidedly greater than in the gorilla and chimpanzee. Looking at the upper surface of the brain, the cerebellum is completely concealed by the cerebral hemisphere. The lobes and convolutions agree generally with those of the chimpanzee, but the external perpendicular fissure is less distinct, being partially obscured by the greater development of the annectant gyri. The interior of the hemisphere, as has been recently described by Professor Rolleston, and was demonstrated in the lecture by specimens from the College Museum, has its lateral ventricle, with anterior, middle, and posterior cornua, hippocampus major and minor, and eminentia collateralis as in the brain of man and of the other anthropoid apes.

The reproductive organs in the adult state are only known from Sandifort's description. The penis has two retractor muscles, the testes are situated on each side of the root of the penis, close to the inguinal canal. This canal was found open on one side and closed on the other; in young specimens it is always open on both sides. In females the clitoris is large, and the uterus of the ordinary form in the anthropoid apes. In a specimen in an early condition of pregnancy, a well-marked decidua vera and reflexa were found. The law regulating the growth of the young animal after birth resembles that in the chimpanzee.

The sexual differences, independently of those directly connected with the reproductive function, are well marked. The

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female is smaller, has a much smoother skull, and canine teeth greatly inferior in size to those of the male. The pelvis presents peculiar differences, the lower part, or pelvis proper, being proportionally larger in the female, as the following measurements show:—Height—male, 9¾ inches; female, $7\frac{6}{10}$. Width between anterior-superior spines of ilia—male, $10\frac{1}{4}$; female, $8\frac{1}{4}$. Antero-posterior diameter of brim—male, $5\frac{2}{10}$; female, $4\frac{6}{10}$. Transverse diameter of brim—male, $4\frac{2}{10}$; female $3\frac{3}{4}$. Inter-sciatic diameter—male, $3\frac{2}{10}$; female, 3. Like the other great apes, the orangs, though inhabiting a very limited geographical area, present a very great amount of variation in their colour, the proportions of the limbs, and their osteological and dental characters.

The remaining animals belonging to the group of man-like apes form the genus *Hylobates*. Vrolik, Lartet, and other eminent naturalists, struck by the great resemblance to the human type seen in some of their anatomical characters, have held that they approach nearer to man than any of the others; but the whole organisation taken together forbids us giving them so elevated a place in the scale. The gibbons, or long-armed apes, as they are commonly called, consisting of several species, are limited in their geographical distribution to the islands of the Indian Archipelago, and some parts of the adjoining mainland. They are arboreal in their habits, and the most active of any known apes, swinging themselves from bough to bough with extraordinary agility, actions to which their conformation well suits, their limbs being immensely long, their body light, and their head much smaller than in the larger anthropoid apes. When on the ground, they can walk upright readily, aiding themselves with their knuckles, or using their long arms as balancing-poles. They all possess exceedingly loud voices.

The distribution of the hair upon the body and limbs resembles that of the preceding species; the proportions of the limbs are, however, exceedingly different. Both arms and legs are long in proportion to the body, and are to each other as 5 to 3. The hand is longer than the foot. The foot is shorter than the tibia. The hand is very much shorter than the forearm. Their comparative inferiority of type is shown in the greater length of the radius to the humerus. The vertebral column is less curved, even than in the orang. The number of dorso-lumbar vertebræ is eighteen, either thirteen dorsal and five lumbar, or fourteen dorsal and four lumbar. The spines of the middle cervical vertebræ are not prolonged as in the gorilla, but short, as in man; but this, and likewise some other characters to be mentioned hereafter, do not necessarily approach *Hylobates* to the higher type, as has been supposed, for we find them equally characteristics of some of the lower groups of monkeys. The lumbar region is elongated; the last lumbar vertebra does not appear ever to have its transverse processes enlarged and anchylosed into the sacrum. The last-named bone is remarkably broad in proportion to its length, but is very little excavated in front; the coccygeal bones follow in the same curve. The scapula differs very widely from that of man, the two fossæ being nearly equal, and the spine very oblique to the internal margin. The acromial and coracoid processes are of great length and strength. The clavicle is long and strongly curved, the humerus long and slender, the radius arched so as to leave a wider interosseous space. The hand is very narrow. The carpus contains nine bones. The thumb is better developed than in the orang, but not so much so as in the gorilla. The pelvis exhibits in many respects notable characters of degradation. It is set on at a more acute angle to the plane of the sacrum. The ilium is comparatively narrow, flat in front, and with a well-marked posterior concavity. The subpubic arch, distinct in all the other great apes, has almost disappeared, the symphysis pubis being inordinately long. The tuberosities of the ischia, when seen from below, form an extremely open angle, and widen out into flat or slightly concave surfaces for the attachment of the dense, naked patches of integument, which constitute the "ischial callosities" found in the gibbons in common with the lower Old World apes. The antero-posterior diameter of the pelvis is long and narrow. The femur is still a little larger than the tibia. The ankle joint presents the same peculiarities of form as in the other great apes. The calcaneum has a very small projection behind the ankle. The entocuneiform bone has the usual peculiarities of the ape. The proportions of the different regions of the foot are still further removed from those of man, than in the gorilla, chimpanzee, and orang; but there is a decided superiority to the last, in the greater development of the hallux, which reaches nearly to the extremity of the base of the first phalanx of the second digit.

The skull is much smaller in proportion to the body in the gibbons than in the larger anthropoid apes. The orbits are large and the supra-orbital ridges greatly developed. There is no downward projection of the mastoid process. The occipital foramen is situated as far back as in the posterior fifth of the base. The planes of this foramen, the ethmoidal plate, and tentorium have all a greater inclination than in the higher apes. The union of the frontal bones over the junction of the presphenoid and ethmoid is very distinct. The inner surface of the petrosal bone generally presents a fossa. The cranio-facial angle is greater than in the orang. The extensive union of the great wing of the sphenoid with the parietal is a remarkable character, as, though general in man, it was not met with in the chimpanzee and gorilla, and only occasionally in the orang. The nasal bones are broader than in the orang, and very soon become anchylosed together. The maxillo-premaxillary suture persists until after the eruption of the permanent teeth. The palate is long and narrow. The lower jaw shows great prolongation of the horizontal ramus, and want of height in the ascending ramus. The siamang (*Hylobates syndactylus*) is the only ape which has anything like a mental prominence.

FROM ABROAD — FRENCH APPRECIATION — BRUSSELS REGISTRATION RETURNS.

Our Parisian contemporary, the *Union Médicale*, in appreciating the recent session of our Medical Council, seems to think the Profession in this country in a far more desperate condition than is really the case—so difficult is it, even with the best intentions and by the aid of documents, to represent the exact condition of the institutions of a foreign country. We are told:—

"As the results of feudality and the liberty of legislation in England, an infinite multiplicity of learned bodies, private societies, and even individuals, enjoy the privilege of granting degrees, constituting licensing bodies for the healing art under conditions which are so various, so different, and, in several cases, so easy of fulfilment that they become complete illusions. This, joined to the liberty of teaching which prevails among our neighbours in Medicine as in all other Professions, led to such crying and dangerous anarchy that, aided by accidents, calamities, and law-suits, a general feeling was at last entertained that some endeavour should be made to place order in this strange confusion of studies and titles. Hence the Medical Act. The decreeing this was nothing. But its application had to follow; and then, according to the maxim of Montaigne, so eternally true, the difficulties appeared in all their light, as did the evil in all its extent. Diplomas from all quarters, the origin of some of which had not been even suspected, were exhibited. In answer to a question of Colonel French in the House of Commons, the right of the Archbishop of Canterbury to confer a Doctor's degree, without any preliminary examination by the College of Physicians, was publicly recognised by the Secretary of State. Was ever investiture more sacrilegious than this? On the other hand, official examiners, without qualifications or knowledge of the matters on which they have to examine, have been recognised. A pretty guarantee this! Finally, there is a complete absence of legal prescription for uniformity of examination, or for regularity and authentic proof of study, no conditions respecting age and preparatory studies; but, in place of all this, an assemblage of obsolete, incoherent, and contradictory laws and ordinances. Such is the English Medical code!"

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We have no need to point out the exaggerations and inaccuracies in the above extract; but these are hardly to be wondered at when we ourselves have some difficulty in realising our exact position.

We make one more extract from the same writer, who is noticing the discussion in the House of Commons upon the dearth of candidates for the Army Medical Department:—

"'The service is not popular,' says one. 'Promotion is too slow,' exclaims another. 'The rank is inferior and the subordination humiliating,' adds a third. 'All baubles,' replies the Marquis of Hartington, without any shame; 'the question is purely a matter of money. Pay more, and all vacancies will be speedily filled.' Major O'Reilly, in fact, showed that, while the expenses of the English army are on the whole double that of the French, as regards the Medical services the cost is nearly equal. The solution of the enigma has been discovered: all is reduced for these proud islanders to an affair of pounds and shillings. Money, money, always money! This is not the side we shine on in France. Disinterestedness and professional dignity are what we prefer, and which are not without their merits."

M Janssens, a Physician attached to one of the statistical bureaux of Brussels, has just published an interesting account of the movement of population and mortality in that city during 1863. It appears that on January 1, 1863, the population was 181,799, and that by the end of the year 3133 inhabitants were added. This took place chiefly by immigration, as the excess of births over that of deaths only amounted to 790; the entire number of *births* for the year were 5927 (2990 male and 2937 female), more than a fourth—viz., 1400 (704 male and 696 female)—being illegitimate, but only 3 foundlings. The proportion of births to inhabitants was 3·2 per cent., and the proportion of births to deaths was 115 per cent. Of these children, 412 (45 legitimate and 367 illegitimate) were born at the Maternity. There were 75 twin children born living (37 male and 38 female). Besides the above children born living, there are returns of 352 who died prior to delivery, 86 being premature births. There are from 19 to 20 born dead for every 10,000 inhabitants. Of the 352 born dead, 200 were males and 152 females. The number of *marriages* contracted in 1863 amounted to 1715, giving a proportion of 1 marriage for 106 inhabitants. In 1861, for the whole of Belgium, there was 1 marriage for 141 inhabitants. By comparison with the number of legitimate births for the year, this is found to be 2·64 for each marriage, that for the kingdom at large being 4·4 per marriage. During the year 28 *divorces* were granted. In 1861, the proportion of divorces to marriages in Brussels was 1 in 61, while for entire Belgium it was 1 in 603. The influence of towns on the number of divorces is further shown by the fact that, of 56 divorces granted in Belgium in 1861, 48 were pronounced in towns with a united population of 1,266,780 inhabitants, while only 18 were pronounced in rural districts, with a combined population of 3,515,476. The *deaths* during 1863 (including the stillborn) amounted to 5137. During the last 10 years, 1854-63, the mean annual number of deaths has been 5037; so that, allowing for increase of population, the number for the present year is about the normal proportion. The proportion of deaths was 2·80 per cent., or 1 death for 35·5 inhabitants—a proportion which is nearly identical with that of the last ten years. Since the commencement of the 19th century, however, the mortality of Brussels has diminished nearly one-half. With respect to *sex*, of the entire deaths 2594 were male and 2543 female,—the slight excess of male mortality acquiring more importance from the fact that the female living population exceeds the male by about 5000. The predominance of male deaths persists to 5 years of age (1078 male, 949 female), then disappears during adolescence and until 40 (329 male, 378 female), to again preponderate between 40 and 70 (631 male, 539 female), and finally disappear after 70, when there were 170 male to 342 female deaths. As to the influence of *age*, infancy below 1 year furnishes a contingent of 1046 deaths, or 22 per cent. —little less than a fourth of the whole mortality. During the 2nd, 3rd, 4th, and 5th years respectively the mortality diminishes to 498, 238, 139, and 106; the total mortality below 5 years amounting to 2027, or 42 per cent. of the total. Below 10 years the mortality is 45·4 per cent.; from 10 to 20, 3·7 per cent.; from 20 to 40, 15 per cent.; from 40 to 60, 15·7 per cent.; and above these ages 20 per cent. Of 4718 deaths, one-half took place before 25. Of 4718 deaths, 2984 (63·2 per cent.) were of unmarried individuals, 1110 (23·5 per cent.) married, 234 widowers, and 390 widows.

THE JOURNALS.

THE *Australian Medical Journal* for *January* details an instructive case of aneurism of the external iliac artery, where the common iliac was ligatured by the posterior operation as performed by Sir Philip Crampton, and again, in 1846, by Mr. Stanley, and recommended by Mr. Skey in his work on "Operative Surgery." The man on whom the operation was performed was thirty-four years of age. It was done by Mr. Lempriere on October 20. The artery was easily found. On the 22nd the skin of the foot was purple, and there was numbness of the soft parts; and on the 25th the foot was rather more shrivelled, and the sensibility of the skin doubtful. The temperature was kept up with hot water-bottles. On the 26th a tendency to moist gangrene was observed, and the bowels were relaxed. In the afternoon of the next day he became suddenly worse, and sank and died. On post-mortem examination it was found that the ligature had been applied at a little over an inch from the bifurcation of the aorta, and had been fairly secured, and that there were two inches from the ligature to the division of the artery. A firm fibrinous coagulum was found above, but none below the ligature. There was no peritoneal inflammation. The wound was healthy, and no important parts had been injured in the operation.

In the *April* number of the *Journal of Mental Science* we find Dr. Hitchman's (of Derby) account of his interview with the convict Townley, and his report on the subject to Townley's solicitor, Mr. Leech. The case is so important a one, in a Medico-legal point of view, that, at the risk of wearying our readers, who, doubtless, think they have had enough of Townley, we transfer a portion of his report to our pages. He gives it as his opinion—

"That he possessed a feeble intellect, associated with strong emotions; that these conditions, aided by an hereditary predisposition to mental disease, may, at no distant day, cause him to become insane; but that, at the present time, he was a rational and responsible person."

The conclusion of the report was as follows:—

"I *infer* a proneness to insanity in Mr. Townley from the eccentricity of his opinions and habits; from the strength and violence of his emotions; from his physiognomical expression; from the configuration of his head; from these in combination, but *chiefly* from the fact that some of his relations, one of whom I have seen, have died from acute mania. I *allege* that Mr. Townley *is not now insane*, in the legal sense of that term, because he is under no hallucination; because, absurd as are his dogmas in reference to man's responsibility, they are theories entertained by hundreds of persons who are capable of all the duties of social life, and who describe themselves as 'Necessitarians,' or by other sectarian titles. Moreover, the theory has been eloquently, however fallaciously, advocated by the distinguished poet, Percy B. Shelley. Again, although Mr. Townley refers to a wife as *property*, yet he does so in the same sense as an American slaveholder describes his slave as a 'chattel;' and in regarding betrothals as equivalent to marriage, and as an insurmountable impediment to marriage with another party, he is in harmony with our ecclesiastical laws prior to the reign of George the Second, and (as I believe) in accordance with the present laws of Scotland. His wild opinion that the violation of a betrothal vow is equivalent to an act of adultery betrays a gross error of judgment, but not an *insane* conclusion; the punishment he allots to the crime of adultery finds precedents in Jewish and Roman law, under such wise legislators as Moses and Constantine, and cannot be regarded as an insane decree, however wicked it may be when

inflicted by an individual, without a proper appeal to the public tribunals of his country;—from which facts—but primarily and mainly because the feeling which prompted Mr. Townley to the criminal act *did not spring from an hallucination,—from a subjective imagination* within his own mind, but was excited by the conduct of a second person,—was created, in fact, by a *real and deep injury* inflicted on him by an individual to whom he was warmly attached, and from whom he had a right to expect better things—I infer that Mr. Townley is, *at the present time*, a rational and responsible person."

The May number of the *Dublin Quarterly Journal* opens with an article by Dr. Law, in which he maintains his preference for a mode of treating acute rheumatism which he held nearly twenty years ago, and which, we believe, has been extensively tried in this country, with varying results. It consists in a single moderate bleeding, rarely repeated, and the use of colchicum. Five cases are related in proof of the rapidity of cure under this system, but we cannot avoid noticing that opium was an element of treatment in each of them—a remedy of no small value in the opinion of the majority of Practitioners.

The *Pharmaceutical Journal* for April contains an abstract of a paper read by Mr. Whitelaw to the Philosophical Society of Glasgow on the Utilisation of Brine, in which he proposes to separate, by dialysis, the salt and nitre of brine, leaving the extractive matters which it is known are drawn from the meat in the process of salting. A simple mode of operation consists in filling bladders with the brine and suspending them in vats of water, removing the water about once a-day. The operation is usually completed by the end of the third or fourth day. Two gallons of brine yielded 1 lb. of solid extract, containing the coagulated albumen and colouring matter. For the production of the same directly from meat, something like 20 lbs. of lean beef would be required. He believed that in Glasgow alone over 60,000 gallons of brine were thrown away yearly, equal in soup-producing power to 187 tons of meat without bone. Estimating the meat at 6d. per lb., this amounted to a loss of £10,472.

In the last number of the *Chemical News* Mr. Whitelaw applies the same principle to the separation of salt from cured meats, and the restitution of the extractive matters removed in the process of salting. The meat is thus rendered "fresh" again, at any rate to a great extent. The process recommended is applicable at sea, and is thus likely to prove a boon to mariners.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF THE POTTERIES.

(Continued from page 601.)

Dwellings of the People—Ventilation.

The whole of the inhabitants of the Pottery district seem to me to be exceedingly well housed. In this respect I can bear out fully the observations of Mr. Scriven in his report on the sanitary state of England. The houses are well built, overcrowding seems to be rare, and cleanliness appears to prevail generally. The ventilation of the houses is, however, not attended to here any more than in other parts of England; that is to say, no systematic plan has been adopted either for window ventilation, the introduction of chimney valves, or any systematic plan.

Diet of the People.

The inhabitants of the Potteries appear to me to be exceedingly well dieted; their resources in this respect are not limited, as is the case in Stafford, nor yet confined to any special article of food—such as pork—as in Wolverhampton. The people generally are sober and simple in their mode of life, and though not given to extravagance, as a rule enjoy, like many of the middle classes of this country, even the luxuries of existence in a moderate degree. In these respects the operatives differ from those of all the other towns I have yet visited, and indeed there is about the district altogether an orderliness, quiet, and content which it is very satisfactory to observe,

Prostitution.

Prostitution is not carried on in the Potteries, as a profession, to any extent. But few regular brothels exist in the neighbourhood, and the women who may be considered degraded are usually of the lowest class, and are often exceedingly young. In the Infirmary there are generally two or three women of this kind, and from four to six in the workhouses, who are suffering from syphilitic diseases. There are no statistics extant respecting the number of prostitutes in the district. Infanticide is very rare.

Epidemics and Endemics.

Accurate records as to the amount of epidemic and endemic disease in the Pottery districts are wanting. Scarlet fever is a prevalent disorder, and of rather frequent occurrence. Typhus and typhoid fevers are not infrequent, especially in the poor lodging-houses. Diphtheria has occurred, but, compared with other localities, has run a limited course. Cholera has visited the neighbourhood severely. In 1849, in the district of Newcastle, then including 19,489 inhabitants, there were 241 deaths from diarrhœa, and 24 from cholera, giving a total of 265. In Newcastle itself there were 239 cases of cholera, and 19 of diarrhœa. The first cases were those of diarrhœa, and occurred in the workhouse on the 8th and 13th of June; both died. On June 19 a girl, aged 14, died of cholera in the workhouse, after seven hours' illness. The disease then spread into the town in a malignant form, and at the end of August 129 persons had died, 14 having died on one day—the 17th of August. The lowest parts of the town were those most influenced. In 1854 there was no death from cholera at Newcastle, and only 15 from diarrhœa during the great epidemic. In the district of Wolstanton, including 32,666 inhabitants, there were 79 deaths from cholera in 1849, and 65 from diarrhœa, making 144 in all; and in the district of Stoke-upon-Trent, with a population of 47,951, there were 103 deaths from cholera and 63 from diarrhœa, making 166 in all, in 1849. In 1854 these two latter districts were scarcely affected by the epidemic. It was observed in the epidemic of 1849 that the disease broke out in Stoke late in the summer, the first case occurring in the workhouse on the 15th of August. The disease stopped on the 7th of October. Eighteen deaths occurred in the Stoke workhouse alone. The exact cause for the prevalence of the disorder in the district is not accurately ascertained, but Mr. Garner informed me that in Stoke it evidently was traced to the arrival of an infected person from another district. Small-pox is occasionally met with in the Potteries, but of late years has not been a prevailing epidemic.

Vaccination.

Vaccination is carried on pretty effectively in the Potteries. In Newcastle, in 1860, the infant vaccinations per cent. on registered births were 67. The number of vaccine districts was 3, and of vaccinators 3. In Stoke-on-Trent, the vaccinations numbered 63 per cent. on registered births, the number of vaccine districts being 6, and of vaccinators 18. And in Wolstanton and Burslem the vaccinations were 73 per cent., the vaccination districts 2, and the number of vaccinators 15. In the mixed schools of the district, Dr. Stevens found the typical cicatrix present at two points on the arm in the majority of cases examined.

Etiology.

We have seen that the prevailing diseases of the Pottery district are those of phthisis, bronchitis, or potters' asthma, and struma, with more acute cases of lead poisoning, of paralysis, and the usual epidemics. There are other diseases, which are not uncommon, such as calculus, consisting mainly of the uric acid variety, in the very young as well as in the old. That this is not uncommon in children is proved by the circumstance that Mr. Garner has operated twice upon girls. Goitre is also frequently seen. Cases of tetanus are rare, six only having occurred in the district for fourteen years, and two of these being mild. Only one case of hydrophobia has been known in North Staffordshire for thirty years. As to the origin of these diseases, I need touch only on the most salient points. Goitre, in the opinion of the Medical residents, has no relation to the presence of lime in the water drunken. It is rare in the better classes, is confined to females, and usually dates from puberty or the first child-bearing. Mr. Garner is of opinion that it bears an approach to cretinism. Bronchitis appears to be brought on mainly by exposure in the Potteries to great variation of temperature; and the potters' asthma, as we have

already seen, is produced by the inhalation of the particles of dust diffused through the manufactory.

Lead Paralysis.

Of the paralysis arising from lead poisoning, the statements as to the cause appear conflicting. The disease is most common amongst the "dippers," or those who are employed in dipping the earthenware utensils into a solution containing lead; but the boys who take the earthenware from the dipper and the women who are employed to brush the ware after dipping are sometimes affected as well. Various reasons are assigned for the occurrence of paralysis, viz., that the lead was absorbed by the skin, that persons of different constitutions were differently affected, and that extent of work—that is to say, overwork in times of pressure—gave rise to the disorder. Taking the whole of the evidence that I could collect, especially from two very intelligent and experienced workmen in the manufactory of the Messrs. Wedgwood, I believe that the explanation of the cause is very simple. It seems to me that the lead is not absorbed by the skin at all, but that it is taken in by the mouth. Men of dirty habits leave the dipping-tub, wash their hands imperfectly, take up their food in their hands and eat, absorbing with the food considerable quantity of the wash with which the hands are covered. The men themselves state, in fact, that it is very easy to produce the lead disease by neglecting to wash before going to meals; and one man who was a scrupulous washer reported that he had worked for fourteen years, on nearly every working day, without suffering once from the effects of the lead; while many who worked in the same room had at various times been affected. I suggested to Mr. Wedgwood, jun., that the best remedy of a preventive kind would be to teach the men to eat all their food, whether consisting of bread, meat, vegetables, or aught else, with a knife and fork; and I have little doubt that this simple process would soon reduce the number of cases of lead poisoning in the Potteries to a minimum. In extreme cases of chronic paralysis from lead poisoning, the nervous centres seem seriously involved. Mr. Garner, who, from his long experience, has been able to make many examinations, tells me that atrophy of the corpus pyramidalis, and of the crus cerebri, on the side opposite to the affected side of the body, is a frequent lesion.

Pulmonary Consumption.

The next great etiological point to be considered relates to the cause of pulmonary consumption in the district. This subject was reported on by Dr. Greenhow in his papers addressed to the Medical Officers of Health in 1849, and again, at greater length, in 1860. Dr. Greenhow's opinion was very strongly expressed that there are various unhealthy influences at work in the Pottery district, quite independently of the particular industrial occupation; and he showed, in support of this view, that children under five years of age, and who are, of course, excluded from the occupation, showed a high pulmonary death rate. This evidence, very striking from the exceedingly careful and accurate manner in which it is put forward, is not, however, implicitly received by those Medical men who live in the district. Amongst them the opinion prevails that the great mortality from pulmonary disorder is traceable to the deteriorating influence of the potters' work. The whole question, from the local view of it, is very ably summed up in the following observations from Dr. Arlidge:—

"The *number of male potters* in Stoke aged 20 and upwards is, according to the last census, 5813, which is equal to 31·25 per cent. of the whole male population living at the same ages; in other words, the male potters constitute less than one-third of the adult male population.

The registers of deaths in Stoke parish, excepting those of the district of Longton, fail to show in a large number of instances the occupations of those deceased. This sadly lessens their value as public documents, and particularly when needed to solve the question of the relative mortality of any special occupation. We can go no further in discovering and noting the occupation than the registers aid us, but reference to the careful records kept at Longton clearly indicates that many of the deaths in the other registration districts were those of potters, though not specified to be such. In Longton the mortality among potters to the whole number of such workmen living equals 3·47 per cent., and that in the whole of Stoke parish may be estimated at 3·25 per cent., allowance being made for a possibly higher ratio of deaths among potters in Longton than elsewhere.

A table of the number of deaths among male potters, compared with the number of deaths of males of all other occupations at different ages, in decennial periods, shows that in the ten years from 50 to 60, nearly one-half of the whole number of deaths occurred among potters; and that in each decennium, from 40 to 50, and from 30 to 40, more than one third happened among those artisans.

The conclusion deducible is, that the occupation of potters is connected with a rapidly rising rate of mortality after the 20th year, which attains its maximum in the decennium between the 50th and 60th years. Taking the whole period from the 20th to the 60th year, the deaths among male potters have equalled 37·91 per cent., although the proportion of such workmen in the whole male population is only 31·25. From various calculations it may be inferred that the mortality among male potters is 8 per cent. greater than among other males at the period of life in question. Whereas only 17 male potters in 100 survive the 60th year, 35 males of other occupations do so. Of 223 males who attained the 50th year and upwards, potters constituted only 27·80 per cent.

The mean age at death of male potters who had arrived at the 20th year and upwards, was 46·50; whilst that of other males was 52. The mean age of such males in England is 56. Allowing for casualties, the mean age of males in Stoke may be put at 54—potters excluded.

Mortality of Potters from Lung Diseases and Phthisis.—Among potters aged 20 and upwards, these maladies killed 1·34 per cent., or 13·41 per 1000 living. In Langton they destroyed 2·42 per cent., or 24·20 per 1000 living.

Among 210 males at 10 and upwards, who died from those diseases in Stoke, 85, or 40·47 per cent., were potters.

Of 148 male potters, 47, or 31·75 per cent., died from phthisis alone, and 85, or 57·43 per cent., from that malady and lung diseases together. In Longton considered apart the proportion is increased to about 60 per cent.

On comparing the mortality of male potters at 15 and upwards from diseases of the lungs and phlebitis together, with that prevailing in England at the same ages, it is as 57, or (if the registration were correct) 60 per cent. to 32 per cent. of the deaths that take place.

An examination of the ages at which death has occurred among male potters from phthisis and diseases of the chest respectively, shows that the maximum mortality of the former disease is reached in the decennium between 30 and 40 years of age, and that of the latter group of maladies between 50 and 60. It is especially in the circumstance of the high mortality from chest diseases that the excessive ratio of deaths among male potters finds its explanation. In not a few towns in this country the death-rate from phthisis is greater than in the parish of Stoke; but in much fewer is it larger from diseases of the lungs; and when the ratio of deaths in Stoke caused by the latter class of maladies and consumption is compared with the average proportion in England and Wales, the excess, though very considerable in the case of phthisis, is much more striking in that of the non-tubercular diseases of the respiratory organs.

Again, when we come to inquire into the relative prevalence of the diseases in question in the two sexes in Stoke, we find that both are considerably more rife among males than females; but the class of diseases in which the preponderance is found is more especially those of the lungs.

That the maximum mortality of potters is reached in the decennium from 50 to 60 has been already noticed; and on further examination it is seen that between the ages of 40 and 60 almost one-half of the whole number of deaths of potters who have reached manhood occur.

A consideration of the foregoing facts leads to the inference that, unless predisposed to consumption, when they die in a larger proportion between 20 and 40 years of age, potters suffer from the injurious effects of their occupation in a rapidly advancing ratio after the fortieth year, which ratio reaches its maximum short of the sixtieth year."

Struma and Degeneration.

The last point etiologically bears on the prevalence of strumous disease, and of that general deterioration of system allied to it, which, undefined by the nosologist, is easily recognisable by the practised eye as indicating a degraded health, and which may be said to be almost general amongst the young engaged in the earthenware manufacture. The conditions named spring, I think, without doubt from the nature of the occupation, and especially from the employment in it of young children, whose little strength is overtaxed at the time when it is all wanted for the development of the

organism. In the factories the boys are employed in processes some of which are exceedingly laborious; and children so young even as five or six years of age may be found earning their bread. In some of the factories, too, the boys work even longer than the men, coming, as Mr. Tonge has shown, to light the fires and the stoves, first in the morning, and remaining after their elders have gone, to clean up the shops and empty the stoves. The work to which they are subjected is heavy. Some of them act as "jigger turners," at which work they are engaged turning a horizontal wheel, which sets in motion the centre on which the potter turns his ware. Others run with plates from the turner into the drying-room or stove, in which proceeding they may have to move many hundred times a-day from a temperature of 50° to 130° F., as I proved by direct observation in one case. Others work at the "batting out" process—that is to say, in preparing the batts of clay for the manufacture of saucers. Others dust and clean the earthenware, or receive the plates from the dipper; and others, again, are engaged at what is called "wedging the clay," which process consists in lifting up a mass of clay above the head and throwing it down on a slate or on another mass of clay many times, in order to drive out the air which is present in the clay, and which, if left in, would prevent the perfect working of the material afterwards. Of all these operations, those of plate carrying, jigger turning, and wedging seem to be the worst, and no one, I am sure, could watch the last-named process without wondering how for hours at a time such feeble limbs could carry on such terrible labour. Of late, in some manufactories truly, a mill called a "pug-mill" has been introduced, through which the clay passes before it comes to the wedger, and by which considerable labour is saved. But still the work is out of all reason, and it is physically impossible for a child to mature who is constantly engaged at it. The force, in fact, which should be developed in nutrition is expended on the clay. The result is as may be expected: the children are indifferently developed; they grow up to become fathers of undeveloped children, and, not to mince the matter, the race is deteriorated. Various remedies have been suggested, and, under the influence of a governmental supervision, which will probably soon come into force, much good may be done; but if children are employed at all in these heavy processes, no system can, I think, combat all the evils. How can it, indeed, when the broad fact stands out in the eyes of all who have carefully inspected a pottery manufactory, that the adult artisans are positively employed in tasks which, in so far as the evolution of force is concerned, are relatively lighter than those performed by their youngest child-companions? The true remedy lies, I believe, in the plan of allowing steam or water power to produce the force which is now supplied by these youthful martyrs to labour and routine. Steam power could easily turn the jigger, and one can scarcely doubt that, in these days of mechanical skill, a machine could be made that would supplement the defects of the pug-mill, and perform the wedging process, at least, under the guidance of the hand, without strain upon muscle or exhaustion of nerve.

Suggestions of the Children's Employment Commissioners —Medical Inspectorships.

I referred briefly in my first paper on the Potteries to the late report of the Children's Employment Commission. I may state, at greater length, that these Commissioners, whose labours have been carried out with very great care and exactitude, have come to nearly the same conclusions as those stated above in respect to the injurious influence of the present system of pottery work on the young. I have waded through all the evidence collected by the Commissioners, since writing the account of my own observations, and I am happy to find that there is in that evidence more even than substantiates that which the reader has already perused. The remedies proposed by the Commissioners are physical and moral.

In the way of *physical* remedies, the Commissioners suggest —1. That there should be an improved ventilation and a reduction of the temperature in the potters' stove rooms. 2. That the ventilation of the work-rooms of the finishing department should be improved. 3. That specific regulations for the protection of health in certain departments of the manufacture should be carried out in accordance with the precedent of the Factory Act. 4. That, in accordance with the provisions of the same Act, young persons should be secured from working overtime. 5. That the young should have secured for them regularity of meal-times.

In order to improve the *moral* condition, the Commissioners are of opinion—1. That the potteries should be placed under the Factory Act with special reference to the limitations of age and hours of work, school attendance, and the other regulations of the half-time system. 2. That greater security for education should be afforded by requiring a certificate of a certain amount of education on attaining the age of thirteen years.

After entering into various other details, the Commissioners propose, as a mode of legislative interference, that a Medical Inspector should be appointed for a limited period by the Secretary of State for the Home Department. The powers and duties of the Medical Inspector are thus defined:—

"1. Power of entry (as under the Coal Mines Regulation Act) into all potteries.

"2. To inspect and examine into the state of the places of work in reference to their construction, ventilation, and other arrangements, so far as they may affect the health of the children and young persons working therein.

"3. On finding any place of work deficient in ventilation, or otherwise injurious to the health of such children and young persons, to serve notice in writing on the owner or occupier, stating the particular grounds on which he is of opinion that such place of work is deficient in ventilation, or otherwise injurious to health.

"4. If within fourteen days the owner or occupier does not signify to the inspector in writing his intention to remove such grounds of complaint within a specified and reasonable time, in a manner satisfactory to the inspector, the inspector to call upon the owner or occupier to nominate a civil engineer, architect, or other competent person, and the inspector to nominate another; an arbitrator to be appointed before proceeding to determine the matter in difference, as directed by the Mines Regulation and Inspection Act, 1860, s. 13. The arbitrator to be a person entirely unconnected with the district.

"The decision of the three persons so appointed to be final, and to be enforced by the justices of peace for the district, under penalties for non-fulfilment within a definite period. No justice of peace to act who is owner or occupier of a pottery, or the father, son, or brother, or agent of any owner.

"There being only 180 pottery works in the Staffordshire district, and of these, as has been seen, probably not many more than 100 which would require any, or more than slight, improvements in the particulars under consideration, and the whole lying near together in a district of only eight miles long from north to south, and from one to three miles broad, it does not appear probable that the continuous services of the Medical inspector would be required for more than one year. His occasional services might be required during one year more."

While these recommendations, following as they do on the most careful evidence, demand the greatest respect, they do not go sufficiently far to meet the acknowledged and fearful evils now present. As a temporary *legal* measure, I cannot but think the proposition of the committee of working potters, to the effect that no child should be allowed to work until he has attained the age of ten years, is preferable to the half-time system at eight years. But I must maintain that this also is insufficient, and that there is but one true remedy for the physical regeneration of the young potter—the introduction of machine for human power.

MEDICAL BIOGRAPHY OF THE POTTERY DISTRICT.

Mr. Garner, of Stoke-upon-Trent, has paid great attention to the Medical biographical history of the county of Stafford. I hope some day he will publish an account of his interesting researches in full. He has supplied me with particulars of one or two Esculapian worthies of the Potteries.

Mr. Bent, Surgeon.—Mr. Bent was a Surgeon of considerable eminence in Newcastle-under-Lyme. He is noted as being one of the first, if not the first, who excised a diseased shoulder joint. The operation was entirely successful, and the particulars were published in the *Philosophical Transactions*. Bent, who was a martyr to gout, which he would insist on treating by means of cold effusion, ultimately became deranged in intellect, and committed suicide by opening the carotid artery.

Dr. Chowner, M.D.—Dr. Chowner was a Practitioner of Burton, and at the beginning of this century enjoyed an immense reputation throughout the whole of the district. He was consulted by all classes of the community; and was a very successful surgical operator, particularly in lithotomy. He once cut four patients for stone in one morning. He

was as great (says my informant) with the bottle as with the scalpel, and for the term of fifty years indulged in a bottle of strong spirits—gin or brandy—daily. It stands against teetotalism, nevertheless, that the alcoholic Doctor lived to the age of 90 years, and was the father of no less than twenty-seven children. In the latter part of his life, he became stone blind, but was still largely consulted.

Mr. Coombe, Surgeon.—Mr. Coombe was a Practitioner very eminent in his district, especially in Surgery. He was rough in dress and demeanour, but was an exceedingly cool, collected, and dexterous man. He was specially called for in cases of accidents in mines, and was accustomed to recount with great gusto the number of operations he had performed by the light of a farthing candle. I have no particulars of the death of this Surgeon.

Now, I must close this history of the Potteries, not that the matter which I was able to collect is exhausted, but because the necessities of the work before us remind me that it is time to stop, and to move into a new locality.

REVIEWS.

Geschichte, Natur-und Gesundheitslehre des ehelichen Lebens. Von Eduard Reich, M.D.

The History, the Nature, and the Healthful Conditions of Married Life. By E. Reich, M.D. Cassel. 1864.

Dr. Reich has endeavoured to give in this book an abstract of all that has been written on the marriage customs and sexual relations of every nation, adding thereto the results of various statistical and other investigations into the questions which the theme suggests. He appears to have been moved to this task by a strong feeling of the importance of marriage, the due fulfilment of its duties, and maintenance of its honour, as the foundation of all that is valuable in social life, and by a deep and indignant conviction of the sad shortcomings of the present age. His views are mixed up with so strong an anti-theological bias that it is difficult for every reader entirely to sympathise with them; and we may hope, although they seem to be the fruit of much study, that they are tinged by somewhat too much of bitterness. "The increasing celibacy of our day," he says, "must be regarded as a sign of social disease, which, on the one hand (and this especially), is connected with bad economical principles, and on the other with the enervation of the younger generation and with the unexampled licentiousness and viciousness of men. So long as the public finance, instruction, and education rest on so rotten a foundation as is unhappily the case at present will prostitution and celibacy become more extended, poverty deeper, dissipation, vice, and brutalisation more extreme." Even if extravagant, these words touch upon a veritable social ulcer, whose dimensions we shrink from probing. Perhaps it would not be wise to assume too readily that the voice of warning is one of exaggeration. Speaking in another place of sodomy, Dr. Reich says, while admitting that it had its origin in the East, that "our larger and smaller capitals probably contain more practisers of sodomy than the cities of Asia; and we need only read Tardieu's reports and listen to the descriptions given by the organs of the secret police of Berlin, Vienna, etc., almost to despair of the manhood of Europe." Probably we may justly believe that English life in this respect is less contaminated than Continental—thanks to a more healthy physical training; thanks, also, perhaps in part to abstinence from the attempt to regulate prostitution. It appears that Julius Rosenbaum, who studied this crime as it existed among the ancient nations, ascribed its origin to the fact that in Asia (as also in Italy and Spain) the female organs, like the rest of the body, undergo a great relaxation. In respect to the practice of self-abuse, the author, to his horror, has met with parents who have themselves induced the habit in their unconscious children. For the evils which he points out, however, he suggests no other remedies besides the general ones—which are doubtless among the best—of a better and more active hygiene and a more practical education.

Statistics showing the advantages of married over celibate life in respect to longevity, insanity, suicide, etc., are detailed, but these contain nothing new. Dr. Reich has found marriage of blood relations injurious, and adds his testimony to the affirmative side of the argument. The preponderance of sex in the issue of marriages he holds, with Hofacker and Sadler, to be dependent on the relative ages of the parents: the greater number of children are of the sex of the elder parent.

Among some of the Indians of Brazil there exists a custom of drawing the prepuce over the glans and tying it there. The reason assigned is the exclusion of insects. Others enclose the member in a sheath of dry issara-leaves, which they call a giucann. The wives of the Guaycurus, if pregnant before the age of 30, procure abortion, in order to be more attractive to their husbands. Only children conceived after that age are reared. If an infant at the breast is made captive in war, the women of the conquering tribe (it rests on the authority of Alves de Prado) receive the child and suckle it at their own bosom, even though they have never been mothers.

Among the Kalmucks abortion is practised by long-continued friction of the abdomen, and by laying glowing coals contained in the sole of an old shoe on the region of the uterus. The gipsies, who, in Asia, are extremely lax in morals, have a curious custom. When a husband is found unfaithful the wife's male relations come and *tan* (?) his skin according to all the rules of the art. A cruel Persian, Strauss reports, on one occasion flayed alive one of his wives in a fit of jealousy, and nailed up the skin in a room in his house as a warning to the rest. Strauss saw the skinless corpse thrown into the street and dragged away. Here our author diverges to affirm that he has it on good authority that the Croats, in 1848, flayed alive some unhappy Vienna students who fell into their hands.

An account is given of the Probenacht, or proof-night, as it existed among the lower classes of Europe during the earlier part of the middle ages. It appears to have been the almost universal custom for those who contemplated marriage to pass the night together "until either both parties were satisfied of their mutual suitability, or the girl became pregnant. Then the peasant formally engaged himself, and the wedding soon followed." It was exceedingly rare, says Fischer, for such an engagement to be broken off, especially in case of pregnancy: it would have drawn down the universal execration of the village. No girl's character suffered by the passing through the "proof-time" in vain; nor would a second suitor be deterred. But if the same result frequently recurred, a certain reproach attached to her, as having some hidden defect. It seems to be the opinion of the authors on the subject, that in a simple and rude state of manners the institution of the "proof-night" tended to preserve rather than to deteriorate morals. Such a view is, perhaps, possible, however undesirable it might be to revive the custom. The spiritual teachers of the people at last succeeded in eradicating it, but it continued to be practised even in the highest circles till the close of the fourteenth century. A similar custom is said to have prevailed among the Mongols. There still exist remnants of it, probably, in the practice of "bundling" in the more backward districts of our own country.

We find from this volume that there is a strong reaction against polygamy among the Mormons. The following passage is quoted from a member of their legislative assembly:—

"Polygamy is a manifest evil, an institution which is opposed to the best interests of the people. It banishes the best women (that is, they seek to escape the shame by early flight); it hinders instead of favouring the increase of the population. Polygamy obstructs the formation of families; makes an orderly education of children impossible; and is the fruitful spring of widespread vice and misery. Have the priests and elders a right to impose an institution so hurtful indissolubly on the community? Shall the free Mormon people submit to see its best interests buried, that these men, who are just as fallible as we are, may have a better prospect of gratifying their lusts? What is their sensuous pleasure in comparison with the great interests of the commonwealth?"

The Senses and the Intellect. By Alexander Bain, M.A., Professor of Logic in the University of Aberdeen. Second Edition. London: Longmans, 1864. Pp. 640.

This book by Mr. Bain, first published about nine years ago, has taken a position among the standard works relating to the science of mind. It is so well known and so fully appreciated as a text-book, that on the appearance of the second edition all that we have to do is to point out in what respects it differs from its predecessor. We cannot do this more briefly than is done by the author himself:—

"The explanations of the nervous system and the senses have been amended according to the best recent authorities on physiology. The definition of mind has been somewhat

differently expressed. The systematic plan of describing the feelings has been modified, and all the detailed descriptions recast. An attempt has been made to generalise the physical accompaniments of pleasure and pain. The instinctive foundations of volition are stated more explicitly. In the second part, the Introduction to the Intellect has been revised, with a view to rendering as precise as possible the natural subdivisions of this portion of the mind. The doctrine referring to the physical seat of revived impressions has been discussed anew, and applied to clear up the difficulties attending the explanation of sympathy. The associating principle of contrast has, on further consideration, been treated as the reproductive aspect of discrimination or relativity. The origin of our notions of space and time has been more minutely traced; and some additions have been made to the handling of the great metaphysical problem relating to the external world."—Preface.

It may readily be credited, then, that a good deal of the volume has been re-written.

Phthisis and the Stethoscope; or, the Physical Signs of Consumption. By Richard Payne Cotton, M.D., F.R.C.P., etc. Third Edition. Churchill and Sons. Pp. 104.

This is a third edition of a very short and clear account of the physical signs of phthisis so far as they are revealed by the stethoscope. The character of the work is, that it deals with matters of fact and observation, without venturing upon speculation or hypothesis. It treats of what it professes to treat, in a methodical and intelligible way, and of nothing else. There is one chapter, on the physical signs of *arrest of phthisis*, which is new and interesting, and which seems like an intimation that a relief or retardation, if not cure of phthisis, may be looked for from those modern improvements in diagnosis and practice to which the author has contributed his share.

FOREIGN CORRESPONDENCE.

GERMANY.

Berlin.

Dr. Kühne, of this University, has lately made some interesting experiments on resuscitation of animals poisoned by oxide of carbon, and come to the result that transfusion of arterial blood is by far the best means of reviving them. The pernicious effects of the gas just mentioned are due to its expelling the oxygen from the blood. Oxide of carbon thus takes the place of oxygen, whereby the blood is rendered incapable of absorbing fresh oxygen; and, as we do not know of any means for removing the oxide of carbon thus combined with the blood, the corpuscles, after having once been poisoned, remain totally unfit for respiration. This is the reason why, after severe poisoning with charcoal fumes, artificial respiration does not restore life. Only a fresh supply of blood, which is capable of respiring, may save those poisoned, and transfusion of blood would, therefore, seem to be the best means of resuscitation in cases of this kind.

The experiments made by Dr. Kühne have shown,—1st. That animals which have been so far poisoned by inhaling oxide of carbon that the conjunctiva is quite insensible come to life without any artificial aid, if there is a minimum of two respirations per minute. 2nd. Animals which have been so far poisoned that there is only one inspiration per minute, die unless artificial aid is given. In most cases the withdrawal of a moderate amount of blood is sufficient to restore the sensibility of the conjunctiva, respiration, and the heart's action. 3rd. If respiration has for several minutes been suspended, life will not be restored by bleeding and simultaneously induced artificial respiration, even if the heart may still continue to beat. 4th. Even after respiration has ceased for several minutes (the maximum observed was seven minutes), and at a time when there is no arterial pulse, and no heart's action perceptible through the walls of the thorax, when the animal, after violent spasms or tetanic stretchings of the whole body, lies relaxed and flaccid, even then transfusion of fresh respirable blood restores life anew. At first respiration begins in a scarcely perceptible manner, but after ten minutes there may be as many as sixteen inspirations per minute, the pulse becomes regular, and at the same time rises to from 100 to 120 beats. The animal then rapidly regains consciousness, cries out lustily, and a few hours afterwards nothing but a slight trembling denotes that it has been at all interfered with. Subsequently neither the poison nor the transfusion leave behind any perceptible disturbances.

In all experiments where transfusion was performed, dog's blood which had been defibrinised and carefully filtered through linen was used. This, if beaten, became of a bright red colour, and rich in oxygen; it was then again heated to about 98° Fahr. and injected through one of the jugular veins, while from the other vein a corresponding quantity of poisoned blood, which had a cherry colour, was withdrawn. In none of the experiments was the amount of blood injected and withdrawn more than one-fifth of the total quantity of blood of the animal.

Some time ago the Medical Society of this capital chose a committee for drawing up a report on the use of gymnastic exercises for girls, and which has now been sent in to the Ministry with the view of inducing the authorities to give to gymnastic exercises a place amongst the educational subjects taught in public schools for girls. Experience abundantly proves that girls, especially such as live in large towns, are subject to disturbances of health in a far greater ratio than boys, and which not only tend to deteriorate the physique of the individuals affected, but also that of their future progeny. General weakness of the muscular and nervous system, all kinds of nervous complaints, chlorosis, defective growth, asthma, and curvature of the spine, are about ten times more frequent in girls than in boys. The reason for this is not the more delicate organisation of the female sex, but the neglect of a most essential element of physical education in those years which are of the greatest importance for the physical development, viz., from the sixth to the fifteenth year. While boys take a great deal of exercise, and are allowed to run, climb, jump, and to enjoy all sorts of games and sports, together with gymnastics systematically pursued, girls are left without these means of strengthening the body. They are left, during the greater part of the day, in badly-ventilated schoolrooms, and, if they come home, they are employed with French and English exercises, sewing, drawing, music, etc., so that there is no bodily exertion equal to that of the mind. It is evidently, therefore, the duty of Physicians to see "*ne respublica feminina aliquid detrimenti capiat.*" Besides swimming, skating, and games in the open air, methodical gymnastic exercises are the most essential means for combating the evils just alluded to. By them the muscular system is strengthened, the position of the body improved, the chest more expanded, the movements become more graceful and firm, and the normal development of the limbs and the whole body is promoted. As motor power is increased, the balance between the two systems of motor and sentient nerves is preserved. The more delicate structure of the bones, and the weakness of the muscular system in girls, does not forbid the use of gymnastic exercises; but these circumstances should most certainly be taken into consideration in regulating them. They must be proportionate to the strength, age, and power of perception of girls. Exercises which require much muscular power, or such as are dangerous or not compatible with female decency, should not be done, and different ones substituted for them. Where the spine, the shoulders, or the hips have already assumed a defective position, of course a special treatment should be directed to such conditions previous to the adoption of the ordinary gymnastic exercises. Drs. Eulenburg, Löwenstein, and others have seen in several private institutions, where ordinary gymnastic exercises were taught to girls, the best results follow, even in cases where curvature of the spine and other affections of the locomotive apparatus were hereditary. They therefore strongly recommend the Government to see that gymnastics for girls should be taken up throughout the country.

Some experiments on the physiological and therapeutical action of the continuous galvanic current upon the organ of hearing, which have recently been undertaken by Dr. Brenner, of St. Petersburg, are sufficiently interesting to deserve mention. He found that if the negative pole was applied to the ear, by means of water in the meatus, the nerve responded to the galvanic stimulus on closing the circuit, and while the current continued to pass, but, if the positive pole was in the ear, there was an effect only on opening the circuit. On the other hand, no effect was produced on opening the circuit if the negative pole was in the ear, nor on closing the circuit, or during the time the current passed, if the positive pole was in the ear. The greater the power of the current, the stronger were the sounds heard. The auditory nerve, therefore, obeys the same law which has been established for the motor nerves by the researches of Dubois Reymond. The excitability of

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the nerve is sometimes increased during the operation, so that the nerve may respond to a lower force of current than it did previously. In a therapeutical point of view, the current has chiefly answered in such cases of deafness where the normal reaction of the auditory nerve to the galvanic current appeared to be altered; and has also proved of great service in numerous cases of noises in the head and ear. Those who are interested in the subject will find it more fully mentioned in the third edition of Dr Althaus' book "On Paralysis, Neuralgia, etc."

Professor Traube still continues his researches on febrile symptoms and their physiological explanation. At one of the last meetings of the Medical Society of this place, he directed attention to the redness of the face and the increased production of urea in acute diseases. I have already mentioned that the learned Professor explains the whole of the febrile symptoms—not only those which have been known from time immemorial, but also such as have only been shown to exist by applying the thermometer—by assuming a tetanic condition of the smallest arteries. It would seem at first sight that the feverish redness of the face was rather due to a paralytic condition and consequent expansion than to contraction of the smallest arteries and capillary vessels, especially if we take into consideration the results of Bernard's researches on the section of the cervical sympathetic nerve. But, nevertheless, such a supposition proves erroneous on careful analysis of the case. Some time ago Professor Traube had in his wards a young woman who had been confined the day previous to admission. During delivery there had been exceeding dyspnœa, which had, however, subsided after the expulsion of the child. The patient's face was intensely red all over, and a good deal swollen. Nevertheless, the radial arteries and the carotids were smaller than usual. The physical examination of the chest showed that the patient suffered from stenosis of the left ostium venosum, a form of valvular disease in which the arteries are always unusually small. The redness was not at all of a cyanotic character, but of a very bright hue, such as is usually observed in fever. The patient died a few days afterwards from an inflammatory affection of the organs of respiration. Within these last days the redness became more cyanotic and somewhat pale, as the bleeding, which had been considerable during delivery, still continued. This case showed that at a time when the supply of arterial blood to the capillary vessels of the skin of the face was much diminished in consequence of valvular disease, yet the face had as bright a red colour as in fever, which may be explained in the following manner:—The blood corpuscles become darker during their passage through the capillaries, those found in venous blood being greatly darker than those in arterial blood. If the velocity of the current of the blood is retarded, the corpuscles absorb even more carbonic acid and give off more oxygen, so that their colour becomes still darker than it is under ordinary conditions. The same results if persons with a delicate skin expose themselves to cold air. By this the smallest blood-vessels are contracted, the face becomes very red, and if the action of cold continues for some time, whereby the contraction of the vessels is increased, the face becomes blue, resembling the cyanotic hue. This is only due to there being more carbonic acid in the smallest blood-vessels. If an intense cold acts for a certain length of time on the skin the contraction of the vessels reaches its maximum, whereby a cadaverously pale colour is imparted to the skin. In fever the succession of symptoms is the reverse of that just mentioned. If there are very considerable rigors there is at first paleness and cyanotic colour; afterwards, if the contraction of the blood-vessels diminishes, there is intense redness of the face. That there really is such a diminution of contraction may be easily ascertained by watching the radial pulse.

The increased production of urea which is observed in the commencement of most febrile diseases, and which continues during their whole course if they are of short duration, would also seem to furnish a *primâ facie* case against Professor Traube's fever theory. Urea is a product of the oxidation of albuminous matter, and it would, therefore, appear that, if all the arteries of the body are contracted and the velocity of the current of blood is retarded, there would be, on the contrary, diminished oxidation of albumen and diminished formation and excretion of urea. But there are several facts which go far to show that such is not the case. M. Rosenstein has found that in diabetes the quantity of urea excreted is very much increased, while the temperature is not only not increased, but rather diminished. From this, as from some experiments of Bischoff and Voit, it follows that there may be increased oxidation of nitrogenous bodies without simultaneous increase of animal heat. Professor Traube considers urea not to be a product of the general waste of tissues, but as produced by direct oxidation of the albuminous matter of the blood, and without much, if any, influence in producing heat, which is, on the contrary, produced by the oxidation of hydrocarbons. If, therefore, in fever, a nearly normal quantity of oxygen is absorbed by the blood, but less oxygen is supplied to the tissues by contraction of the smallest arteries, there is a surplus of oxygen in the blood, whereby the oxidation of albumen, and consequently the production of urea, is augmented. This latter symptom is, therefore, by no means indicative of increased, but, on the contrary, of diminished, oxidation of tissue.

Fresh instances of trichina disease, on which an able essay lately appeared in your columns, are continually being brought forward by the Medical press. From 1859 till 1862 there was an epidemic disease in Blankenburg, in the Hartz mountains, in the duchy of Brunswick, in which no less than 278 of the soldiers stationed there suffered. The nature of the epidemic was not recognised at the time, but that it was nothing but trichiniasis has lately been shown in an interesting manner. A gentleman who had become affected there in 1859, on being informed that the disease had been probably caused by the immigration of trichinæ, offered to become the victim of science, and requested his Medical attendant to excise a piece of flesh from him, and to search for the parasites. A small piece of the biceps having been cut out by Dr. Griepenkerl, it was found that a piece not larger than a pea contained seven encysted trichinæ. The cysts were not completely calcified and sufficiently transparent to allow the organisation of the worms to be clearly perceived. On rupturing one of the cysts and gently heating the animal, this began to move about, at first slowly, afterwards more rapidly. It was, therefore, beyond doubt that the patient had not only recovered from trichiniasis, but that he has also sheltered for nearly five years an immense number of such worms without being any the worse for giving a *habitat* to them. If a person similarly affected should ever become a prey to men-eating Fans or other savages, the results which would no doubt follow might put a more effectual stop to cannibalism than the most ardent endeavours of zealous missionaries have hitherto done.

GENERAL CORRESPONDENCE.

ROYAL MEDICAL BENEVOLENT COLLEGE.

LETTER FROM MR. ROBERT OKE CLARK.

[To the Editor of the Medical Times and Gazette.]

SIR,—In consequence of the leader which appeared in your Journal of the 14th inst. (I had heard nothing at all of the matter before) I went to town and attended the annual meeting of the Governors of the Royal Medical Benevolent College, of which meeting I doubt not your Number for this week will contain a full notice.

The annual report read to the meeting congratulated the governors that the council "had been able to continue the good work for which the College was founded;" a matter of real satisfaction to the large number present. But this agreeable sensation was soon to be dispelled as regarded the future. In due course the council brought forward their proposition to admit sons of laymen as Exhibitioners of the College school, at a higher fee. I ventured to protest, in common with a great number of those present, that this was not the "good work for which the College was founded," and it was very ably argued that the proposed measure, if carried, would in time entirely alter the character of the school, now so deservedly looked upon as a boon to the Profession, and to which I hope to send three sons in succession, one being already there.

In the course of the discussion, Mr. Propert (than whom, I am sure, there is no one who is a greater wellwisher to the College school) assured the governors that "so long as there was a single application for admission outstanding from the son of a Medical man, it should have the preference to the application of a layman." With some difficulty it was elicited that there were now nineteen applications of this kind! therefore the dormitories will not accommodate all those who are desirous of entering the school. But supposing the dormitories to be enlarged, I ask, will Mr. Propert, speaking as, of course, he did, in the name of the council, be able to maintain his promise? If these lay scholars are wanted so as to enable

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the council to devote the extra £23 to be paid by them towards educating some lads at £25 a-year, I maintain that in the ordinary course of such matters a plausible excuse will be found for admitting the £63 boy, whilst the £40 boy goes to the wall, in spite of what Mr. Propert may conscientiously promise to the contrary.

But apart from all considerations of this kind, I am still at issue with the Council, and agree with the legal gentleman who addressed the meeting, "that the Council would be infringing their Act of Incorporation if they venture to admit any but the sons of Medical men, or to spend any of their funds in building accommodation for such;" and I entirely coincide with Mr. Catlin (in the sense in which he used the expression—which Sir Thomas Phillips, I think, very unnecessarily deplored—as Mr. Catlin meant nothing offensive), that the admission of lay scholars would be a "breach of faith" with the original subscribers towards the foundation of the College, many of whom were truly good friends of our Profession, but who have since passed away. For can it be for a moment denied that the public were asked for funds to build the College as a "benevolent" College for the families of Medical men only? And did not many of our patients become subscribers on that account alone—feeling, as I am thankful to acknowledge many do, that some tangible act of gratitude was due to a Profession whose highest aim and desire is, and I hope always will be, to be labouring for the welfare and happiness of their fellow-men?

I venture, Sir, through your columns, still more publicly to utter my protest against the proposed alteration of the 2nd Bye-law; and whatever our esteemed Treasurer and the Council may say to the contrary—for I doubt not they will "pooh-pooh" my fears, and, I am afraid, carry their point at the next special meeting, by using as a sop the concession to Mr. Catlin's advocacy of the claims of our poorer Professional brethren—I am most truly convinced that if lay scholars are admitted to the School, and the distinctive character of it thus destroyed, it will soon cease to hold the high place it now has in the opinion of the Profession; it will soon cease to be a truly Benevolent Medical College School; and, as far as the Profession is concerned, we shall have to use Lord Eldon's famous words—"its sun has set."

I feel keenly for those hard-working members of our noble Profession, especially in the country, who are, like myself, striving against every obstacle to do the best they can for their children, when I see one of their few good things being snatched from them, or I should not have ventured to intrude, and at such length, on your valuable space. Will you kindly permit this to be my apology, whilst I urge every "poor doctor" to consider what advantages he is letting slip from him by his supineness in this matter; if he is not a governor himself, and therefore unable to vote at the meeting, let him press the subject upon the consideration of some friend who is. In praise of the school itself in all its details, especially under such management as Dr. Thornton's, to whom the boys are all attached, too much cannot be said; were it otherwise, the battle would not be worth fighting.

I am, &c.

Farnham. Robert Oke Clark.

ARMY SURGEONS' GRIEVANCES NOT ALL REAL.

[To the Editor of the Medical Times and Gazette.]

Sir,—I would venture to address a few words to that section of the Army Medical Department who indulge in an extremely military—if not an extremely professional—view of the grievances of the Department.

In the pages of the military journals there occasionally appear letters, with the spirit and tendency of which I do not think the majority of Medical officers agree. Under this category I may include such suggestions as—that the names of Medical officers should be placed in the army list among the combatant regimental officers, in the order of their relative military rank, the assurances that some of the best men were leaving the service because this was not done, and those effusions which advocate or employ such titles as captain-Surgeon, etc. This is a section of the Department which I cannot help thinking are doing an amount of injury to it out of all proportion to their numbers or intelligence. Their effusions are evidently welcomed by the editors of military journals, in the columns of which they crop out with a disagreeable prominence, which sufficiently attests how glad are the supporters of the Horse Guards to be furnished with such weapons from the hands of their enemy.

I am fully aware that the Government can scarcely blame those members of the Department who desire to see their position, as defined in one document, inserted into all, as the only protection they have against the recurrence of the present state of things. Surely, however, these men scarcely desire to conceal and merge the justice of their cause under notions of this kind? A man may be alike false to his professional dignity and self-respect by so enlarging the officer as almost to conceal the prefix Medical. The Medical officers have to regret that the question of relative rank has been forced into a very prominent position by the conduct of the Horse Guards. As far as regards their rank and position, they will be quite contented with a restitution of the warrant of 1858. They desire no more, and they conceive that strict justice entitles them to nothing less.

They may safely take their stand upon this ground:—You gave us a warrant in which our position was defined; that position was not our seeking, but the result of a commission appointed, by proper authority, to investigate and recommend where we ought to stand; the abrogation of that warrant involved a breach of faith, and has given an opening for all those invidious distinctions and discussions which ought to have been, once for all, settled by it. I am, &c.

A Medical Officer.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, May 24.

John Hilton, F.R.S., Vice-President, in the Chair.

A paper, by Mr. Berkeley Hill, was read on

THE OCCURRENCE OF A STERNO-CLAVICULAR MUSCLE.

I have lately found a muscle on each side of the body which passed between the front of the first piece of the sternum and the fore part of the clavicle. The subclavii, in this instance, were quite distinct from this rare muscle, and had their usual disposition. The muscles were well-marked rounded slips, tendinous at their attachment to the sternum, and fleshy at their clavicular attachment. The occasional occurrence of such a muscle is mentioned, as far as I know, by Haller only, in his "Elements of Physiology." All the other authors who advert to peculiarities of the subclavius muscle merely describe its attachment to the coracoid and acromial processes of the scapula. Among the commoner animals which have a clavicle, Meckel says that the bat has a well-formed subclavius, and I find by dissection that the mole's subclavius arises altogether from the sternum. But these instances are hardly sufficient to establish any homology between the sterno-clavicular muscle and the subclavius in lower animals.

Mr. Charles H. Moore communicated an account, by Dr. Murray, of a

CASE OF ANEURISM OF THE ABDOMINAL AORTA, WHICH WAS CURED BY COMPRESSION OF THE ARTERY IMMEDIATELY ABOVE THE TUMOUR.

The patient is a spare man, aged 26 years. His occupation as a pavior has required him to use a large wooden rammer for driving paving stones into the ground. Often in making strenuous exertions he has over-reached himself, and subjected the trunk of his body to severe straining. Eleven months ago after hard work he was seized with severe pain in the back. Two months later the same pain began to be felt in the abdomen, catching his breath, and very severe. About two months ago he began to feel a beating in his belly, and shortly afterwards became a patient at the Newcastle-on-Tyne Dispensary under Dr. William Murray, who, after a few examinations, became convinced that he had an aneurism of the abdominal aorta. This opinion was shared by the Medical Officer of the Dispensary. The following was the condition of the patient previous to the treatment:—His abdomen was somewhat spare, so that a distinct pulsation can be seen opposite the umbilicus. On applying the hand a hard, and slightly moveable tumour, of a distinctly globular form, is to be felt. It pulsates very strongly, and the pulsations impinge upon the hand with a sudden stroke, and

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the expansion of the tumour very distinctly separates the hands when applied to it. The tumour is of about the size of a large orange; when "the pressure" is made on the aorta above it, all pulsation ceases, and when it is removed a distinct thrill is felt to accompany the rush of blood into the tumour. A slight bruit is heard over the tumour. (A line drawn across the abdomen over the umbilicus touches at either end the margin of the last rib, and encloses between the free borders of the ribs a triangular space—the epigastric region. Over the left half of this space there is just room enough above the tumour to compress the aorta against the spine.) The aorta below the tumour can be felt, and its pulsations seem in no way to depart from their normal characters. Bowels slightly constipated. Pulse good and normal. General health good; but he is worn out with pain and consequent loss of sleep. No evidence of degeneration of arterial system. All palliative treatment having failed to relieve him, I proposed to apply a tourniquet (an ordinary horseshoe tourniquet) above the aneurism, and thus attempt to cure by compression. It happened, as I have before shown, that the aorta could be compressed above the tumour; and this was most completely accomplished by the tourniquet, one blade of which was applied over the spine and the other over the spot above indicated. Having taken my patient to the Northumberland and Durham Medical Society, I obtained there, from the President (Dr. Heath) and others, ample confirmation of my diagnosis; at the same time I proposed my plan of treatment. On Saturday, April 16, the patient was put under the influence of chloroform, pressure, by means of the tourniquet, was kept up for two hours. On removing the pressure, no apparent effect had been produced. The pressure completely commanded pulsation in the tumour, except during occasional momentary displacement of the instrument. After an urgent entreaty on my part, the patient again submitted to the treatment on Tuesday, April 19. After careful re-examination by Dr. Heath and myself, it was concluded once more that there could be no reasonable doubt of the nature of the disease. The pressure was again used and maintained, with but momentary intermissions when the instrument became displaced, but even these were avoided during the last hour, as I carefully held the instrument in its place, and had the patient very fully under the influence of chloroform. After about five hours the pressure was removed, and its removal showed that now very little pulsation existed in the tumour. Beyond a little shivering and numbness, with coldness of the feet and legs, nothing of an untoward nature followed. In the evening, after a most careful examination, I failed to detect the slightest pulsation in the tumour or in the aorta below it. On Wednesday, April 20, the patient was restless and sore; legs feel numb, and a sensation of pins and needles in the feet. In consultation with Dr. Heath, the following observations were made and confirmed by that gentleman:—"There is no pulsation in the tumour, which is now perfectly stationary, hard, resistent, and lessened in size; nor are any pulsations to be felt in the aorta below the tumour, in the iliacs, or femoral arteries." Thursday, April 21.—The patient is much better. Says "he is more free from pain than he has been for several months." No pulsation in tumour or femoral. Pulses can be felt at one or two points in the abdominal wall. Friday, 22nd.—With Mr. Lightfoot, who carefully examined the case, the following points were made out, and verified by that gentleman:—"A solid, hard tumour, of about the size of an apple, lying to the left of the umbilicus, can be felt, and during deep expiration can be seen. It is motionless to the eye, and, by the hand, the slightest possible forward movement can be distinguished at its upper border, as if communicated from the aorta pulsating above." No expansile movement, thrill, or bruit can be made out. All numbness is gone from the legs, and the patient declares he is quite well. Monday, 25th.—Still improving; is moving about freely. No pain since treatment. The tumour is now much diminished in size, and no pulsation can be distinguished in it. The patient has been out this morning, and walked about a quarter of a mile. His legs failed him once or twice during his walk, owing, he says, to a sensation of numbness in them. When his exercise terminated he felt a numbness from the umbilicus downwards for several minutes. Several Medical gentlemen examined him at this period, and their unanimous conclusion was that all pulsation had ceased in the aorta and the large arteries below the tumour. Among these were Dr. Gibb, Messrs. Fips and Armstrong, Mr. Rayne, etc. May 1.—Patient still improving, and walking in the open air daily. No pain or pulsation. May 5.—Patient still improving; has been out for three hours and walked a considerable distance without other discomfort than slight weakness and numbness in legs. The most careful examination in the presence of several Medical gentlemen fails to detect any movement in tumour, which is now hard and further diminished in size. May 9.—Everything in a most satisfactory state. *Remarks.*—We note in the first place that here we have a complete triumph for the advocates of compression in the treatment of aneurism, for a hitherto fatal disease has yielded to treatment lasting but a few hours, and requiring the use of a very simple expedient. Secondly, here is proof that the aorta can be blocked without violent symptoms or great inconvenience ensuing; and lastly it adds another instance of the value of chloroform, without which the tremendous pressure here used could never have been borne, even though it were to save the patient's life.

Mr. C. H. Moore said that he heard the first half of the paper with incredulity, but in the latter half the author satisfactorily showed that the aneurism was obliterated. The chief proof was the obliteration of the vessels below the aneurism, as the cure of no tumour, except aneurism, would produce this symptom. It was strange that after such sudden occlusion of the iliac arteries there should have been no gangrene of the toes, and no anæsthesia. The diminution of the tumour to one-third its size was another proof that the tumour had been an aneurism. He (Mr. Moore) thought the slips of the tourniquet had very likely been favourable, and that the cure was by coagulation of the centre mass of blood in the aneurism.

Dr. Symes Thompson inquired whether any estimate could be formed of the force required to restrain the pulsation of the abdominal aorta in this case? It would, he thought, have been satisfactory had this point been ascertained by the use of the tourniquet brought before the Society last year, by means of which the exact pressure in lbs. exercised upon a part was indicated on a graduated scale attached to the instrument. The danger to be apprehended from severe pressure upon the solar plexus must be great, and, when the patient is unconscious from the influence of chloroform, it would seem really important to have some indication of the force employed. A knowledge of the pressure necessary in one instance might also act as a check against unrestricted compression in future cases.

The Author said that the force required to arrest the flow of blood would depend very much on the state of the abdominal parietes, and on the condition of the viscera. In this case it was possible to arrest it by pressure by the thumb. The amount of pressure had not, however, been accurately estimated.

Mr. Hilton asked if the author had arrived at any conclusion as to the precise seat of the aneurism—as, for instance, if it were near the cœliac axis, or the origin of the renal arteries.

The Author said that an artery was to be felt beating near the tumour, which he fancied was the superior mesenteric artery. After the first attempt at compression there had been suppression of urine for thirty hours.

Dr. Stewart thought that one of the most remarkable features in this case was the absence of gangrene. He related cases in which gangrene ensued shortly after occlusion of arteries.

A paper, by Dr. W. H. Dickinson, was read

ON THE TREATMENT OF ALBUMINURIA IN CHILDREN.

The granular kidney appears to be unknown in childhood. The only form of disease which produces albuminuria at this period of life is that which produces enlargement of the kidney and gives it a smooth mottled exterior. This is, in fact, a renal catarrh. The tubes become obstructed by an excess of their own epithelial growth, and hence arise all the evils of the disease. If only there is a free escape for the contents of the tubes the vascularity of the gland will be relieved by secretion, and the disorder will soon be at an end. The principle of treatment must be to send as much water as possible through the organ. This fluid is devoid of irritating properties, and probably passes through the gland rather by filtration than true secretion. With these views the patients were restricted to a fluid diet. They took from two to four pints of distilled water daily, and small doses of the infusion of digitalis. When the active symptoms had subsided iron was given. Twenty-six cases were adduced in which this treatment had been pursued. Twenty-two recovered completely; three were lost sight of while improving, but while still having a small quantity of albumen in the urine; one case did badly, and eventually died under other treatment. Many of the cases were of great severity.

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These results appear better than those afforded by other methods. Among the in-patients at the Children's Hospital otherwise treated, 11 died out of 39; and of 69 cases treated by Dr. Miller in Dispensary practice, 8 died. It was found that on an average the little patients were restored to apparent health in 30 days, while 15 days more were needed to get rid of the last traces of albumen. The use of the water did not seem in any case to increase the dropsy, but the contrary. It was usual, however, when the swelling was great to let the digitalis set up a certain amount of diuresis before ordering the full quantity. The subsequent use of iron was believed to correct the effects of the disease, without influencing the disease itself. On the occurrence of secondary disorders, such as convulsions, or acute inflammatory attacks, it was argued that the treatment of the renal mischief should be sedulously persisted in, with such additions as might be called for. The anæmic state of brain in uræmic convulsions, and their frequent occurrence after the exhaustion of diarrhœa or vomiting, were urged as reasons for abstaining from depressing remedies. A case was cited in which, under these circumstances, small doses of opium had been used successfully. A case was also given in which acute pleurisy had passed off under the use of only local measures. The paper professed to deal only with the albuminuria of childhood.

Dr. Fuller had had opportunities of witnessing the author's treatment, but chiefly in adults, in whom it was not so successful as in children. In adults the renal affection was of longer standing. He had tried it in a child in private with success. It was successful in the dropsy of adults, but not so uniformly so as in dropsy in children after scarlet fever. If Dr. Dickinson's views were correct it was easy to understand that it should be more useful in children than in adults.

Dr. Basham said there were many points of practical value in the paper, and yet one or two things for comment. First, in cases where the renal affection followed scarlet fever, let the treatment be what it might, the majority of patients did well. No doubt the diuretic influence of water was beneficial, but he thought the theory brought forward was open to a difference of opinion. He ventured to think that there was not merely a blocking up of the tube, but also some change of the gland-cells—they had become effete cells, and accordingly were thrown off, and these, of course, obstructed the tube. But we know that nature tries to get rid of them, and no doubt diluents are of help in this way. He should, however, think the natural tendency of such cases to do well had more to do with recovery than the treatment.

Dr. Hillier had tried Dr. Dickinson's plan, and had found it scarcely so satisfactory. He (Dr. Hillier) agreed with Dr. Basham, that such patients, however treated, if seen early, would nearly always do well. His plan of treatment was to keep them in bed, to use hot air baths, to give purgatives and good diet. Occasionally he had under care a severe case, and then had tried the water plan, but had been obliged to resort to other means. Perhaps, however, he had been too timid. In one case purpuric symptoms came on. There was considerable hæmaturia and epistaxis. With the water treatment the patient did worse, but when it was given up and gallic acid was administered, the patient recovered.

The Author, in reply, said that he was quite aware that the majority would get well if left alone, but a great number would not. He had been able to collect a large number of cases of deaths in the post-mortem books of St. George's Hospital. In reference to Dr. Basham's remarks, he said that the first changes were, he believed, in the quantity and not in the quality of the epithelium. In reference to Dr. Hillier's want of success, he would fall back on the explanation which Dr. Hillier himself had suggested, viz., that the treatment was not persevered in. The only fatal case in the paper was the one in which the vapour bath had been used.

Mr. Bainbridge asked if the treatment would have been equally successful without the digitalis? He had seen many such cases during the last month, and the patients generally were thirsty, and, as a consequence, without any special direction, drank a great deal of water.

The Author said that the water treatment had been tried alone in three cases.

Dr. Stewart related a case of dropsy following scarlet fever occurring in a woman who had recently been confined. Suddenly convulsions came on, followed by unconsciousness. Cupping the loins, and other measures, were followed by success, and he thought it a case in which the use of diluents would not have led to an equally favourable result.

Dr. Basham said that he thought that if any pathologist well versed in the use of the microscope would examine the gland cells of the kidney of a child who had died by accident, and then those of one who had died from renal disorder, he would find a well-marked difference. In the latter the cell was cloudy, and the nucleus obscure. It had become an effete and imperfect cell.

Dr. Fenwick said that he had examined the mucous membrane of the stomach in scarlet fever patients, and had found changes in the epithelium there as well as in that of the kidney.

In reply, Dr. Dickinson said that no doubt there was a change in the cells, but not primarily.

A paper, by Dr. Edward Headlam Greenhow, was read on a

CASE OF CONGENITAL IMPERFECTION OF THE MAMMÆ, SEXUAL ORGANS, AND HEART.

The subject of this very rare and remarkable case was an unmarried female servant, aged 22. She had been all her life subject to difficulty of breathing when in exercise, and liable to cough from exposure to cold, but had become worse in these respects since she had been employed as maid-of-all-work. Had never menstruated, nor had any vicarious hæmorrhage. Appearance, hair, and voice feminine. Pulse variable, and very small and irregular in the erect position, more frequent, of better volume, and quite regular when patient lay down. There was a remarkable depression in the sternum, and an exquisitely tender spot about the middle of the ensiform cartilage. No trace of mammary glands could be discovered, but there were rudimentary nipples. No evidence of pulmonary disease, but præcordial dulness much extended, and there was a triple heart sound—the third sound, intermediate between the systole and distole, being sometimes supplanted by a murmur. Pelvis abnormally small, and genital organs, as far as examination could be made, imperfectly developed, no os uteri being discoverable, nor any ovaries felt on examination either per vaginam or rectum. Dr. Greenhow had found only four cases on record in any respects similar to the one he described, all of which he quoted, showing that they also differed materially from it in various characteristic symptoms. He regarded the case as a very interesting one of congenital imperfection, the result of arrested development.

THE PATHOLOGICAL SOCIETY.

TUESDAY, MAY 3.

Mr. Prescott Hewett, President, in the Chair.

Mr. Teevan exhibited specimens from

TWO CASES OF ANEURISM OF THE ARCH OF THE AORTA.

The first aneurismal sac was nearly as large as a child's head, and caused the death of a powerfully-built man, aged 44, by bursting into the right pleural cavity. It was of about six months' duration, and a blow on the sternum would seem to have been the exciting cause of its origin. The point of interest in the case was that there was an extensive varicose condition of the veins of the front of the abdomen caused by the pressure of the aneurism on the vena cava superior, thus retarding the flow of blood through the internal mammary veins. The second sac was not quite so large as the first one, and was taken from the body of a woman, aged 45. It was nearly filled with laminated fibrin, and by its pressure had caused absorption of part of the second right rib. Death would seem to have resulted from bronchitis, brought on by the implication of the pneumogastric nerves in the tumour.

Dr. Bowen exhibited a specimen of

SYPHILITIC CARIES OF THE SKULL.

A man 29 years of age, had been eleven years in the army. He was admitted into Newport Hospital eleven months before his death on account of syphilis, whether it was primary or secondary, or whether he was treated with mercury, was unknown. After remaining there nearly five months he rejoined his regiment, but was unable to do duty. Three months later he was admitted into the Tower Hospital, London, where he died January 7, 1855. The patient was under Dr. Bowen's care during the last three weeks of his life. He had nodes on both tibiæ, and the scars of old scrofulous glands on the neck. Three sores appeared on the head, two over the frontal region, another at the junction of the occipital and parietal. One on the forehead was deep—the bone was destroyed, and the dura-mater was plainly visible; this presented a vascular appearance, but there was nothing like acute inflammation present.

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In the other two, though the bone was carious, it was not perforated. There was no cerebral excitement at any time; on the contrary, he was generally torpid. Pain of a continuous, but not severe, character was experienced in the head. There were old pleuritic adhesions on each side. In the right lung, in its upper lobe, there was a deposit of tubercle, hard, and about the size of a filbert. The left lung was studded with miliary tubercles, and its apex contained two abscesses, each the size of a walnut. The heart was small and flabby: the mitral and aortic valves were covered with warty excrescences. In the abdomen, the liver and omentum were attached to the anterior wall by old peritonitic bands of lymph. The liver weighed five pounds seven ounces, and was waxy in appearance. The corticle substance of the kidneys was pale. The spleen was large, and firmer than usual. The mucous membrane of the large intestines was covered with ulcers, varying in size from a split pea to a sixpenny piece. On removing the scalp, all the bones of the skull were seen to be extensively carious; in some places the pericranium was destroyed; in others it was raised by a puriform fluid, which, being allowed to escape, showed an excavation in the skull. There were six perforations beside that one seen during life. The pericranium was firmly adherent around the openings. The dura-mater was not destroyed anywhere: it was thickened and adherent around the perforations. There was considerable effusion of serum in the subarachnoid space, and each lateral ventricle contained about two drachms of fluid. The brain substance appeared healthy. Dr. Bowen remarked that the perforations and excavations followed the ordinary rule by beginning in the outer table and spreading inwards. Considerable interstitial absorption had gone on in the neighbourhood of each ulcer, especially in the immediate vicinity of each perforation. With such an aggravated form of constitutional cachexia, it is not surprising to find that there is no effort towards repair visible in the bone worth speaking of. It was probable that he was affected with primary syphilis for the first time at some period within the last eleven years. He did not know whether he had any secondary affections of the throat or skin; and, as far as the history extended, he first came under treatment within the eleven months preceding his death; neither was there any history of excessive mercurialisation. If scrofula, syphilis, and mercurial cachexia had all allied themselves in this case, the rapidity with which it ran its course was not to be wondered at.

Dr. Gibb exhibited

GROWTHS FROM THE LARYNX, PARTLY REMOVED THROUGH THE MOUTH AND PARTLY THROUGH THE POMUM ADAMI.

The patient was a young lady of 29, whose voice was affected for two years, and who had obstructed breathing for two months with hoarseness. The right wing of the thyroid was decidedly prominent and painful for five months. The laryngoscope revealed a large growth, with irregular outline, of an ashy grey colour, springing from the root of the epiglottis, extending to the right side of the larynx, involving the false cord, and covering the whole of the true vocal cord, as well as the anterior part of the left true cord. This left a small space for the passage of air posteriorly. The under surface of the vocal cords, together with their free borders, were normal, as speech was tolerably fair, although hoarse. On March 29 about one-third of the soft projecting portion of the tumour was readily removed with the laryngeal écraseur, followed by some bleeding. This produced great relief for fourteen days, when she was seized with the most urgent dyspnœa, for which tracheotomy was performed by Mr. Holthouse. Eight days later, her general health being much improved, chloroform was given, and Mr. Holthouse extended his original incision upwards, and divided the thyroid cartilage through the pomum Adami, the lateral halves being held apart by retractors. Dr. Gibb then introduced his finger upwards and removed the remainder of the growths in the larynx, partly with his finger-nail and partly with curved scissors, the tumour being soft and friable in some parts and firm in others. The latter condition extended into the right subglottis. No untoward consequences followed. Five days later she was sitting up in a chair, and on the fourteenth day she was comparatively well, eating hearty and getting stouter. Some days later the laryngoscope showed the larynx clear. Various portions examined by Dr. Andrew Clarke revealed in some the transition stage of simple into malignant epithelial tissue. Dr. Gibb had no doubt of the connexion between the growth in the neck and that in the larynx, and the operation he considered as most satisfactory.

Dr. Morell Mackenzie said that he should like to ask Dr. Gibb whether the pathological specimens submitted to Dr. Andrew Clark were those which he had removed with the wire-loop, or whether they were those which Mr. Holthouse had taken away after the larynx had been opened. He considered that it was useless to attempt to remove an excrescence, the base of which extended over half the larynx, by means of a cutting operation conducted through the mouth. Such cases could only be satisfactorily treated by means of escharotics. Chromic acid had been lately tried by Dr. Lewin, of Berlin, for this purpose. Dr. Mackenzie said that he had tried this agent, as well as nitric acid, but that he found nothing answer so well as Vienna paste. This might appear a hazardous remedy to employ, but he observed that he frequently used it with the most satisfactory results, and without a single bad consequence.

Dr. Gibb replied that the fresh portions of tumour examined by Dr. Clark were what he himself had taken away at his second operation, and although the growth was broad-based, its soft nature and lobulated form readily permitted of the removal of a portion in the wire loop of his écraseur. All the preparations in the London museums he had carefully examined, and tabulated in his work lately published, and the majority of the tumours could have been readily removed with the écraseur without any risk, the growths in many being foliaceous and disseminated, rather than broad-based. He strongly deprecated the use of Vienna paste, and pitied the unfortunate patients submitted to its use, when other and better means of relief could be applied.

Dr. Mackenzie said that many of the specimens described in catalogues as pedunculated growths were not so in fact. In many of these so-called pedunculated growths the base was as broad as the extremity. In all the museums in London there was scarcely one growth that could have been removed with a wire loop, except, perhaps, the specimens in King's College, which Mr. Ryland had described, but had these growths been d'.ided they must have fallen into the windpipe, and suffr ation would have ensued. Whatever might be the problematical danger of employing escharotics in the larynx, Dr. Mackenzie said that experience proved that if they were skilfully applied no evil consequences, but great benefit, resulted from their use.

Dr. Gibb likewise exhibited a specimen of

DETACHED NECROSIS OF THE CRICOID CARTILAGE

From a man aged 39, admitted into the Westminster Hospital July 6, 1863, under Dr. Radcliffe, with acute laryngitis. Tracheotomy was performed the same night by Mr. Holthouse. In October the odour of necrosis was present; he subsequently left much improved, but was re-admitted in April in a moribund state, and died the next day from extensive pneumonia. Besides old laryngeal disease, the posterior part of the cricoid cartilage was found lying quite loose and bare within the larynx.

Dr. Morell Mackenzie exhibited a specimen of

TUBERCULAR THICKENING OF THE INTER-ARYTÆNOID FOLD OF MUCOUS MEMBRANE.

The specimen was taken from a young lady, aged 21, who had had aphonia for eight months and great dyspnœa for four. Tracheotomy had been skilfully performed by Mr. Mason, and the patient was in a fair way of recovery when she took cold, and bronchitis and rapid consumption came on, and she died two months after the operation. In this case the laryngoscope had been of great value, for with it it was at once ascertained that the inter-arytænoid fold of mucous membrane was greatly thickened, and when, in addition to this the false cords became swollen, and the laryngeal canal greatly encroached upon, the necessity of opening the windpipe was at once perceived.

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE.—WINTER SESSION, 1863-64.—Scholarship in Medicine, Surgery, and Midwifery—J. W. Snook; 2. W. V. Lush. Scholarship in Anatomy, Physiology, and Botany—F. Bateman and T. Cole (equal); 3. R. Robinson. Wix Prize—T. Cole. Bentley Prize—W. V. Lush. Practical Anatomy—Foster Prize: R. P. Simpson; 2. R. G. Rogers; T. Cole and T. Cuddeford (equal); F. Bateman and W. Iliffe (equal); 7. A. C. Farrington; 8. E. Renshaw; 9. G. F. Webb; R. D. Broughton and J. Goodall (equal). Treasurer's Prize: W. Square; 2. R. B. Moore; 3. J. Quick; 4. F. H. Lovell; F. Ewbank and E. J. Leverton (equal); 7. W. H. Ellis; 8. W. Sedgwick.

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MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, May 26, 1864 :—

George Huntsman Shaw, St. Bartholomew's Hospital; Alexander Clement Rayner, Bedford; Spencer Henry Simpson, Stowmarket, Suffolk; William Griffith Williams, Haverfordwest.

The following gentleman, also on the same day, passed his First Examination :—

William Lively Shepard, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BULLEN, DENIS B., M.D. Edin., has been appointed Consulting-Surgeon to the Mercy Hospital, Cork.

BULLEN, DR. FRANCIS, has been appointed Senior Surgeon to the Mercy Hospital, Cork.

CALLAGHAN, RICHARD, L.R.C.P. Edin., has been appointed Junior Physician to the Mercy Hospital, Cork.

CREMEN, DAVID, M.B. Dub., has been appointed Junior Physician to the Mercy Hospital, Cork.

FOWLER, JAMES, M.R.C.S. Eng., has been elected Honorary Surgeon to the Wakefield Dispensary and Clayton Hospital.

INDALL, JAMES, M.D. Glasg., has been elected Examiner in Midwifery at the Royal College of Surgeons, Ireland.

LEDGARD, JOE A., M.R.C.S. Eng., has been appointed Medical Officer for the Workhouse of Wetherby Union, Yorkshire.

MACKENZIE, G. W., M.R.C.S. Eng., has been appointed Assistant Medical Officer to the Fisherton Asylum, Salisbury.

MAPOTHER, EDWARD D., M.D. Q.U.I., has been elected Professor of Hygiene in the Royal College of Surgeons, Ireland.

MARSACK, BLACKALL, M.R.C.S. Eng., has been elected Surgeon to the Tunbridge Wells Infirmary.

O'CONNOR, DENIS CHARLES, M.B. Dub., has been appointed Senior Physician to the Mercy Hospital, Cork.

O'KEEFE, WILLIAM, M.D. St. And., has been appointed Junior Surgeon to the Mercy Hospital, Cork.

TAYLOR, DANIEL, M.R.C.S. Eng., has been elected Medical Officer to the Union Workhouse, Bury, Lancashire.

WYCHERLY, GEORGE J., M.D. St. And., has been appointed Junior Surgeon to the Mercy Hospital, Cork.

DEATHS.

DAVISON, THOMAS, M.D. Edin., in the Avenue de la Porte Maillot, Paris, on May 28, aged 65.

FEILD, JOHN A., M.R.C.S. Eng., at Milford Haven, Pembrokeshire, on May 3, aged 45.

FERGUSSON, J., M.D., at Gracefield, Keir, Dumfriesshire, on May 18.

FRANKLIN, FRANCIS, M.D., at Grove-street, Leamington, on May 25, aged 85.

HANNAH, WILLIAM, L.F.P.S. Glasg., at Erskine-street, Liverpool, on May 11, aged 56.

LYNCH, PATRICK, M.D. Glasg., of Donegal-place, Belfast, on May 19.

MAHONY, JOHN, L.K.Q.C.P.I., at Cappoquin, Co. Waterford, on May 24, aged 27.

RILEY, JOSEPH, M.R.C.S. Eng., of Percy-street, Tottenham-court-road, on May 22.

STIRLING, PATRICK, M.D. Glasg., at Johnstone, Renfrewshire, on May 17, aged 44.

WALL, WILLIAM B., M.R.C.S. Eng., at Falkner-street, Liverpool, on May 16.

UNIVERSITY OF CAMBRIDGE.—Dr. Humphry gives notice that his course of lectures on "The Principles and Practice of Surgery" will commence on Friday, July 1, and be continued daily.

THE annual dinner of the Fellows of the Royal College of Surgeons will be held at the Albion Tavern, on Thursday, July 7 next, J. M. Arnott, Esq., F.R.S., has consented to take the chair.

ROYAL SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS.—The Council have announced that they are about to offer a premium of £50 for an essay against Vivisection in English, and 1000 francs for a similar one in the French language, which they hope will continue the agitation against that practice which they have instituted.

ON Tuesday, the 17th ult., an interesting case of aneurism of the abdominal aorta cured by pressure was shown to the Royal Medical and Chirurgical Society, a report of which will be seen in our columns. The case commands special attention, not only as a successful attempt to cure a hitherto uncured disease, but as the first demonstration of the physiological fact that the abdominal aorta in man can be suddenly blocked up without causing violent symptoms, paralysis, gangrene, or anæsthesia.

CONVERSAZIONE AT APOTHECARIES' HALL.—On Tuesday, May 31, the Master and Wardens of the Society of Apothecaries gave a brilliant microscopical *conversazione* at their Hall in Blackfriars. Very seldom in this country has such a magnificent collection of microscopes and microscopical objects been brought together. All the great manufacturers of microscopes contributed instruments. It would be impossible to give anything like a full list of the varied and beautiful objects displayed. We may notice, however, a few of them. Amongst those exhibited by Messrs. Powell and Lealand was the circulation of the sap in the Vallisneria, shown by a $\frac{1}{25}$-inch object-glass. Mr. Warrington exhibited, in a small aquarium, Phoronis Hippocrepia, the Annelidan homomorph of the Hippocrepian Polyzoa. The Hippocrepian tentacular plume, with the œsophagus and the vessels conveying the blood to and from the ciliated tentaculæ, were beautifully shown. Mr. Ross exhibited some objects under Kelner's large field eyepieces. A number of binocular microscopes were shown by Messrs. Crouch, Murray and Heath, Edmund Wheeler, Gould, Smith and Beck, and others. Mr. Jabez Hogg contributed a beautiful specimen of trichina spiralis. But, besides microscopes and microscopical objects, there were many other things exhibited of great scientific interest. Dr. King and Dr. Stephen Ward showed a series of very interesting ethnological water-colour sketches taken from life by Mr. Say, Mrs. Stephen Ward, Miss F. Corbaux, etc. We were especially struck with the "Study of head of young Bushman," by Mrs. Ward. Mr. Carruthers exhibited some of the first original sun-pictures on metal plates, with etchings from the same, executed by M. Niepce in 1827. The Messrs. Wheeler showed various experiments illustrating the allotropic conditions of several elements. They also electrolysed water, making use of carbon poles; and showed that when these were employed carbonic acid was obtained at the negative pole in place of oxygen. Another experiment illustrated the bleaching effects of nascent hydrogen, the gas, at the moment of disengagement, decolorising a solution of indigo, but having no effect on the same solution when passed into a wash bottle containing it. On Wednesday morning, when the microscopical exhibition was visited by a large number of ladies, the same gentlemen made a series of brilliant experiments with twenty-four cells of a carbon battery of their own construction. With this battery they produced a powerful electric light, and showed the arc of the thallium flame on the screen. Iron and zinc were burnt with ease by means of the battery. They also exhibited the magnesium light, and showed beautiful experiments illustrating the fluorescent property of a solution of sulphate of quinine. There was a very large attendance both on the Tuesday and Wednesday; on the latter day of ladies.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.—The Eleventh Annual General Meeting of the Governors of this Charity was held at the offices in Soho-square on Wednesday, May 18. Sir Charles Locock presided, and the meeting was one of the largest and most important that has been held for some years. The Report, which is too long for insertion here, stated, among other things, that eight of the College boys have, during the last year, passed the preliminary examination at the Royal College of Surgeons, one that at the Royal College of Physicians, and five the matriculation examination of the University of London; among the latter, two (Taylor and Randall) were placed in the first class, and obtained honours. There are 190 resident boys, and 10 day scholars. Dr. Albert Bernays had been appointed Lecturer on Chemistry and Natural Philosophy, and commences his lectures this year. The report then stated that "since the last Annual General Meeting the Council have considered with much attention the often mooted question whether it is desirable that the scholars should be confined to one class, viz., the sons of Medical men; and they have come to the conclusion that the usefulness of the College as an educational establishment would be enhanced by the admission of a certain number of pupils the sons of gentlemen not belonging to the Medical Profession, and such a proceeding is desirable for the purpose of obviating various reasonable objections often raised against schools intended exclusively for a particular class. The Council are of opinion that the presence of a few day scholars, the sons of other than Medical men, is insufficient to counteract the disadvantages adverted to, and they consider that, under proper supervision, infusion of a variety of elements into a school such as that which is maintained by this Institution is likely to improve and elevate the general tone, and to facilitate and increase opportunities for that

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mutual training among the boys which gives a public school the just character of being the best preparation for the work and battle of life. With a view to carry out this plan, when circumstances shall permit, the Council will propose to this meeting that the present 2nd bye-law, the terms of which preclude the admission as resident scholars of any but sons of Medical men, be rescinded, and the following bye-law adopted in its place:—'The school is intended for the education of 200 boys, between the ages of 8 and 19, none being above 15 years old on admission. 180 boys shall reside in the College, 40 of whom shall be foundation scholars, the remainder being exhibitioners, and such boys, not being the sons of Medical men, as shall be permitted by the Council to receive their education at the College. The foundation scholars shall be entirely educated, boarded, clothed, and maintained by the College. The exhibitioners shall pay a sum of £40 a-year each for education, board, lodging, and washing, without any extra charge for the use of books, instruments, etc. The scholars not the sons of Medical men shall pay £63 a-year each for the like advantages. All payments shall be made in advance at the commencement of each term.' As will be gathered from the terms of this proposed bye-law, it is intended that the scholars not the sons of Medical men shall pay a sum which will leave a considerable profit upon their cost, and for this profit a special use can be found. The Council are aware that some Governors of the College have long held and advocated the opinion that a certain number of the sons of the less affluent members of the College shall be admitted at a lower rate than is charged to those more successful men who can afford to pay a liberal sum for the education of their children; and the Council do not at all wish to deny that such an arrangement would be a great boon to many whose circumstances do not render it fitting that they should apply for foundation scholarships, but who, though fully sensible of the value of such an education as that given at the College, are unable to afford £40 a-year for each boy whom they desire to educate there. The legal difficulties which, according to the Council, forbid their admitting exhibitioners at any sum below cost price are then stated; and it is observed that the profits derived from the lay scholars may be applied to this purpose." The meeting ordered that the report be "received and entered on the Minutes." The ten members retiring by rotation were proposed for re-election. Dr. Webster and Mr. Catlin protested against the system adopted by the Council of always proposing for re-election the retiring members; it was contrary to the spirit of the Act of Parliament, and was a bad system. The latter gentleman had protested against it before, and as the proposed members were on this occasion men of especial value and efficiency, he took this opportunity of again protesting against the system, and not the men. They were then re-elected. Mr. Birkett proposed, and Dr. Webster seconded the proposed alteration of the bye-law. Inquiries were made as to whether the admission of lay scholars would exclude the sons of Medical men; and Mr. Propert replied that it was not intended to elect a lay boy while the son of a Medical man was in want of admission. It appeared, however, that there were nineteen names on the books for admission next term. Mr. Catlin said if lay scholars were introduced it could only be to the exclusion of the sons of Medical men, and that ought not to be done, unless some equivalent were given to the Profession. He offered as a suggestion the following resolution as more desirable than the Council's. He could not, according to the laws of the Institution, move it as an amendment: "The School is intended for the education of 200 or more boys between the ages of 8 and 19, none being above 15 years old on admission. 180 boys at least shall reside in the College, forty or more of whom shall be foundation scholars; the remainder shall be exhibitioners and commoners, the sons of Medical men, and such other boys, not the sons of Medical men, as shall be permitted by the Council to receive their education at the college. The exhibitioners and commoners shall be admitted in such relative numbers as the Council shall from time to time determine. The foundation scholars shall be entirely educated, clothed, and maintained by the College. The exhibitioners shall pay £30 a year for education, board, lodging, and washing, without extra charge for the use of books, instruments, etc., and they shall be the sons of Medical men whose means will not allow them to pay a higher sum. Such commoners as are the sons of Medical men shall pay £40, and those not the sons of Medical men shall pay £63 a year for education and the like advantages. The schools were not founded for the rich. It was the original intention of the founder to admit scholars at £30 annually, even if the funds were taken to make up the deficiency." Dr. Sieveking (one of the Council) supported the suggested resolution in a powerful speech. He hoped to see the school extended to admit even 400 boys. Sir T. Phillips (one of the Council) was fully alive to the importance of Mr. Catlin's suggestion, and thought it would be very unwise to take a vote upon either the motion of the Council or upon the suggestion of Mr. Catlin. He took it to be one of peace, and recommended its reference to the Council, for their careful and serious consideration. After considerable discussion, Dr. Cholmeley (one of the Council) moved, and Mr. Kesteven seconded, a resolution to the effect that the recommendation of the Council and the suggestions of Mr. Catlin be referred back for the reconsideration of the Council, for them to report thereon as speedily as possible at an extraordinary general meeting to be convened for the purpose. This was carried. After some other business, the meeting then adjourned.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

The Physiological Test for Poisons.—*L'Union Médicale* reminds its readers that MM. Ninet and Giraud, of Clermont, had made use of this test in a case of poisoning by white hellebore. They made experiments on a chicken with matters extracted from the bodies of the victims. Their report will be found in the *Gazette Hebdomadaire*, August 2, 1861.

We have received a copy of a shabby newspaper, published at Chester-le-Street, and containing a fulsome puff of a Medical Practitioner, who, it is alleged, had cured a case of heart disease which the most eminent Physicians had given up. It is singular that the Editor of a newspaper in a civilised country should (we suppose as an act of kindness) puff a Medical Practitioner in a style that can be acceptable only to the vendors of quack medicines.

Sentiment is in general a bad guide in the investment of money; nevertheless, the European Cattle Importing Company, of which Mr. Burge, of Hammersmith, is a chief promoter, promises not only to supply a social want, but also to prove remunerative.

Sarsaparilla Proposed for Rickets and Mollities Ossium.—In the course of his researches concerning the life of the plant-cell, Mr. Gulliver has been led to notice that the specimens of Red Jamaica and Honduras Sarza, obtained from Apothecaries' Hall, are remarkably rich in starch and in raphidian cells, while the Guatemala Sarza, from the same authentic source, differs only in containing very little starch, and that the fresh leaves of Smilaceæ also abound in the same raphides. No wonder, then, that two former Sarzæ should have been found so useful in venereal cachexies connected with disease of the bones, and that in such cases the patients often become fat after a full course of this medicine. The lime of Sarza has been regarded as existing in the form of an oxalate; but as so many of the acicular crystals in plant cells are known to consist of the phosphate of that earth, these raphides of Sarza were concluded to have the same composition; and specimens of them having been sent to Dr. Davy, were subjected by that eminent physiologist to analysis, who confirmed this conclusion. Hence, Mr. Gulliver observes that the Red Jamaica and Honduras Sarzæ possess exactly the composition, and in an organic form, that we should be led to look for, as a drink or addition to the diet in those sad and intractable diseases of children, of which a leading feature is a deficiency of phosphate of lime in the bones. We believe that the late Sir Benj. Brodie, from the quantity of lime existing in bran, was in the habit of prescribing bran-bread and bran-tea in such cases. As to the so-called American Sarza (*Aralia Medicaulis*), Mr. G. found it both destitute of starch and raphidian cells, though abounding in Sphæraphides.—*Ann. Nat. Hist.*

Iodine as a Disinfectant.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—On perusing a letter in the last number of your journal by Dr. Druitt, recommending iodine as a disinfectant, I find he gives Dr. Richardson the credit of having been the first to point out this peculiar property of iodine. I am sure Dr. Richardson with his usual liberality will admit that it was at my personal solicitation that he was first induced to employ iodine as an antiseptic and disinfectant.

In a paper of mine on the treatment of scrofulous diseases, etc., read before the Royal Medical and Chirurgical Society on the 27th of November, 1860, published in the *Proceedings*, this passage occurs:—"After the evacuation of the pus the iodine lotion was applied immediately to the diseased part, as, independently of its therapeutic action, its antiseptic properties were of great advantage."

In addition to the great disinfectant properties of iodine, I am satisfied that it is equally valuable as a preservative of animal matter, although I am fully aware that the Academy of Medicine of Paris some few years ago came to the conclusion that iodine was not a disinfectant (*vide* my paper). I may here observe that I have been in the habit of using iodine as an antiseptic and disinfectant somewhere about fifteen years.

As an antiseptic in the offensive discharges of cancerous affections I find nothing so efficacious as solutions of bromine.

I am, &c. A. WYNN WILLIAMS.

20, King-street, Portman-square, May 25.

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The King and Queen's College of Physicians.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The Master of the Rolls in Ireland having just decided that the King and Queen's College of Physicians, Dublin, have no right to grant the title of M.D., it would be greatly to the advantage of the College to grant the licence on the same terms as that of Edinburgh. At present the charge for the former is £15 15s., for the latter £10 10s.; besides which the K.Q.C.P. require the English Apothecary to give up his certificate and "not be registered." None will do this, as the L.S.A. Lond. has been examined in the "science and practice of Medicine," and "is qualified to practise." By lowering the fees for the licence, and allowing the Apothecary to retain his qualification, the K.Q.C.P. would have many more candidates. At present their fees are higher. They take away a legal qualification, and do not give an adequate compensation.

I am, &c. Scalpel.

An Earthenware Pessary.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In your number of the *Medical Times and Gazette* for May 21, in the article on the "Medical History of the North Staffordshire Infirmary," Dr. Richardson has done me the honour to notice, in favourable terms, a pessary which I have lately had made of earthenware. To prevent mistake or disappointment, should any parties think well to give it a trial, it might be proper to state that, like most other instruments of the kind, it requires the assistance of a perineal pad and bandage to be worn at the same time.

These, any woman who has the ordinary use of her fingers can make. I usually give the following directions:—A double strip of calico to pass round the body, just above the hips, about the breadth of three fingers, with tapes to tie in front; a similar piece of the same material, fastened to the back of the former, and split at the loose end, to be brought between the thighs up each groin, and tied to the circular band. To this latter piece, where it covers the perineum, a pad, about three inches long and the thickness of the thumb, made of wash-leather, covered with oiled silk or gutta-percha tissue, and well stuffed with cotton-wool, should be attached. This pad can be changed as often as is required for the purposes of cleanliness. It should be braced up pretty tightly so as to press firmly on the perineum by the under strap when in use.

The instrument should be removed every night after resuming the recumbent position, and replaced in the morning before rising, so as to give the parts subject to pressure, both internal and external, during the day, rest for the night. In this manner both soreness and tenderness are avoided.

I am, &c.

Burslem, May 26. Joseph Walker.

Naval Assistant Surgeons.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—At a time when the military authorities are at their wits' ends endeavouring to fill up the vacancies in the Medical Department of the Army, it is pertinent to inquire by what magical means the Admiralty replenish the ranks of the Assistant-Surgeons in the Navy.

I suggested that they accomplish their object by picking up the waifs and strays of the Army competitive examinations, and really until the candidates for both services are examined by one common, competent board, I do not see that my suggestion can be said to be ill-founded.

In the naval service Medical men have many grievances to be redressed; they are worse paid, worse housed, and treated with as scant consideration as they are in the Army, and it is therefore contrary to common sense to suppose that, in these days of open competition, the Navy gets competent men if the Army cannot. If the Horse Guards have broken faith so has the Admiralty; if justice is withheld in one branch of the service, so it is in the other; and with all the disadvantages of a life on board ship added to all this, it would be folly to suppose that the candidates who pass the Navy Board could, if they chose, pass the Army competitive examination.

I might enumerate several subjects of grievance which the Naval Medical Officers of the present day have to complain of, but I know it would be useless to do so while the present state of things exist. Neither Horse Guards nor Admiralty will redress grievances so long as they can get a sufficiency of candidates, and they care very little whether the Professional quality of the candidate be good or bad. Happily for the army, there is a competent tribunal which the candidate must pass, and the appointment of Mr. Prescott Hewett, *vice* Paget, gives evidence that the character of that tribunal will be sustained.

June 1. I am, &c. M.D., R.N.

Medical Education.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—It is positively refreshing to read the unflinching, outspoken remarks of Dr. Parkes in the debate appertaining to the Medical Council, as reported in the *Medical Times* of May 14 inst. Now-a-days, things are improving; clinical teachers are more alive to their own interests, and give better value for money to those whose after-career depends much on the acuteness and energy of their instructors; and students are becoming more alive to the responsibility of the task in store for them. Where are these young men who go straight from the Hospitals and schools to the earnest struggle of life—where are they to gain the necessary knowledge and tact for daily duties, unless at the hands of their teachers? Some, it is true, will teach themselves from sheer love of their art, and these, after all, become good Practitioners; the ready eye, willing ear, and indomitable will displace advantages which others have and use not;—such men never could be the dullards Dr. Parkes describes!

I have seen your crack men at the grind-class completely impotent at the bedside of the patient, replete with the cons and quibbles of grinders' lore—"ever learning, but never coming to a knowledge of the truth." Crowds follow the teacher of clinical Surgery, whose repute is as great as his retinue; they hear his remarks, which may or may not be treasured; they see him operate, if fortunately near enough to him; but where lies their chance of practice? Does the Hospital furnish cases for them all? Too often the Surgeon hands over the case to his pupils; the resident pupils monopolise, the clinical clerks engross more than their share, but the "young man from the country" is happy in dressing stray ulcers, or making a "parcel delivery" of some unhappy patient's molars. Why, my young man, did you not stay at your Provincial Hospital, and you may have had a fracture all to yourself, or, may be, a dislocation, as an extra piece of luck? but if more fortunate youngsters than you can attain the money-bought privilege of "pupilage to some worthy," your desire for practical attainments will often go a-hungering. What are the use of large Hospital Dispensaries if the general student is not taught in the same manner as the articled pupil of the Surgeon? What is the use of talking to students, the youngest and the oldest, without precision, taking for granted that they know what they do not know? The want for students will be found in men who will "think aloud," giving some reason for the hope that is in them. How gratefully many hard-working Practitioners bless such men, and remember the kindly look or word of encouragement—the helping hand on the Hill of Toil! What is the practical benefit from half the lectures? Two years would amply suffice for them, and five of well-directed Hospital and Dispensary work would send men into the busy world decently equipped, at least, for earnest duties. It is grievous to see healthy lives wantonly sacrificed, and to hear the comments of outsiders—"Oh, another of Mr. So-and-So's patients! Mr. —— always leaves his mark wherever he goes." Such men gain nothing for themselves, and are a lasting reproach to the schools who produced, and the Colleges who sent them forth; they mutilate nature in her best intentions, and seem to have "no bowels of compassion." Would that we had more men like Graves, who felt the responsibility of teaching, nor shrank from inculcating the sacredness of a mission that must needs be for good or evil!—the most heedless and reckless might be warned, self-sufficiency disarmed, and good, plain, honest, working material sent into the market.

There is more practical benefit to be derived from the plan of taking cases and lecturing on the actual clinical report than in disquisition on the curiosities of Medical practice from the times of Hippocrates to the present,—cases, perhaps, of an incurable nature, and, consequently, of passing interest compared with sterner realities that await every man whose occupation is hardly less than sacred. I am, &c.

Wandsworth. Henry Ussher, Med. Bac., Surgeon.

COMMUNICATIONS have been received from—

Dr. John C. Thorowgood; M.D., R.N.; Medical Officer; Royal Institution; Mr. Callender; Dr. James McCraith; Dr. Francis D. Bullen; Epidemiological Society; Mr. James Fowler; Mr. Joseph Walker; Mr. Sylvester Richmond; Royal Society for the Prevention of Cruelty to Animals; Apothecaries' Hall; Dr. Humphry; King's College, London; Ethnological Society; Dr. Andrew Clark; Scalpel; F.R.S.

BOOKS RECEIVED.

Appendix to the Ex-parte Statement, entitled, "The Case Stated between Dr. Moon and Dr. Purvis." Greenwich: H. S. Richardson.

*** There are some matters whose perfume is not enhanced by agitation, and this is one. Dr. Purvis really was the first offender, and confesses as much in the following passage:—"As to the alleged refusal to meet Dr. Moon, it must be borne in mind that only twelve days before the 10th of July last, Dr. Purvis met Dr. Robert Finch (his junior by many years) in consultation on the case; and that he had, about six weeks previously, induced Dr. Palfrey to visit the patient. Both these gentlemen agreed with Dr. Purvis that the disease was uterine, and that his treatment of it was the best that could be adopted; the cure of the disease being, to all human appearance, impossible. Moreover, some time prior to Dr. Palfrey's visit, Mr. Busk had, at the request of Dr. Purvis, and on his account, gratuitously seen the patient, and consulted with him upon the case. When therefore Dr. Purvis, after all these consultations, was asked to meet Dr. Moon (who was then a stranger to him), he declined to do so, not because he was a younger Practitioner than himself, but for no other reason than that he could not help feeling there seemed to be a want of confidence in him on the part of the patient and her friends, which led him to suggest that it would be better for them to dispense with his services altogether, and to obtain other Professional advice: it was therefore arranged that Dr. Purvis should visit the patient the next day as usual, and then it should be decided who was to attend in future. In using the words attributed to him, that 'Dr. Moon came into the town with no particular prestige,' Dr. Purvis intended merely to allude to there being no particular speciality attached to that gentleman's name in relation to diseases of the uterus without meaning in the slightest degree to depreciate the Profession status of Dr. Moon, or to insinuate any doubt as to his Professional acquirements." The whole case lies in a nutshell. Dr. Purvis could not keep the patient, and should have let her quietly go. All subsequent interference and curiosity on his part were *infra dig.* As for Dr. Moon's omission in his certificate, we cannot see how it could benefit him or injure Dr. Purvis, and it would have been but a liberal act from one Professional brother to another if Dr. Purvis had acquiesced in Dr. Moon's explanation.

Corpulence: its Diminution and Cure, without Injury to Health. By John Harvey. Second Edition. London: John Smith and Co., Longacre. 1864.

*** Mr. Banting, the upholsterer, grew prodigiously fat whilst he indulged in milk and farinaceous substances, and recovered a more human figure after he had been put by Mr. Harvey, of Soho-square, upon a rational diet. This diet excludes the sugars and starches, but allows plenty of meat and wine, and such aliments as are necessary for a man who takes abundant exercise, and who is used to good living. Mr. Banting has told the world of his wonderful cure, and for the present the Banting system of diet is the popular Medical absurdity which is enjoying its nine days' vogue. It has extinguished the Turkish bath, lemon-juice, etc., etc., and is adopted by the intelligent public without considering whether it suits them or no. In the midst of this blaze of popularity, out comes Dr. John Harvey with a pamphlet on corpulence. He justly remarks that his pamphlet is "original," and we fully agree with him that it has nothing borrowed from the science of our time. Amidst a mass of what we should think rubbish if it did not rest on Dr. John Harvey's authority, comes a preposterous diet table, containing three or four daily meals of bread and meat and wine, without fruit and vegetables!

On the Anomalies of Accommodation and Refraction of the Eye. By F. C. Donders, M.D. Translated by William D. Moore, M.D. The New Sydenham Society. Vol. XXII.

*** This is a work to be studied, not reviewed. That the Society has done well in undertaking its translation, does not admit of question. There is no other book in our language which enters so fully into the questions discussed. But for all this we think the Society might have done better had it issued in its place some book more likely to be generally read. We fear that, except with Ophthalmic Surgeons, Donders' work will be taken from the book-shelf less frequently than any other volume of the Society's publications.

Report of the Liverpool Dental Hospital. Liverpool. 1864.

*** It contains two tables, showing the liability of the different teeth to decay, which demonstrate very forcibly the fact long known to dentists of the great tendency to early decay exhibited by the first molars, especially of the permanent set, a tendency most marked in the lower jaw.

A Plea for the immediate Establishment of a Reception House or Hospital for the Treatment of Zymotic or Contagious Diseases of Children. By T. Radford, M.D., F.R.C.P. Edin. Manchester. Sold by J. E. Cornish, Piccadilly.

*** We commend this pamphlet to all our readers. Probably we shall recur to the subject elsewhere.

Glaucoma, and its Cure by Iridectomy. By J. Soelberg Wells, M.R.C.S. London: John Churchill and Sons. 1864.

*** Practical, and not too long—two important elements in the success of any monograph now-a-days.

Edinburgh Veterinary Review. May, 1864. Edinburgh: Maclachlan and Stewart.

*** Dr. Stark's proposed New Classification of Diseases for Statistical Purposes. We shall consider this shortly.

The Journal of Mental Science. April, 1864. London: John Churchill and Sons. No. 49.

*** In this number there is an account by Dr. Hitchman of his interview with the convict Townley, and an important statistical paper by Dr. Hugh Grainger Stewart on Hereditary Insanity.

New Observations upon the Structure and Formation of Certain Nervous Centres. By Lionel S. Beale, M.B., F.R.S. London: John Churchill and Sons. 1864.

*** We shall take an early opportunity of reviewing this important paper

Lines of Demarcation between Man, Gorilla, and Macaque. By G. B. Halford, M.D., Professor of Anatomy, Physiology, and Pathology in the University of Melbourne. Melbourne: Wilson and Mackinnon. 1864.

*** Dr. Halford places the anatomical differences in parallel columns, as they relate to the Cranium, Cranial Measurements, Dentitions, Vertebræ, Extremities, Muscles of the Thoracic Extremity, and Muscles of the Pelvic Extremity, so that the work is tolerably exhaustive.

Edinburgh Medical Journal. May, 1864. Edinburgh: Oliver and Boyd.

*** Contains a good paper by Dr. Hjaltolin on Epidemic Pneumonia in Iceland.

Life and Health Assurance for the Working Classes. By Wm. Hardwicke, M.D., M.R.C.S., Deputy-Coroner for Central Middlesex.

*** This pamphlet may be taken as a contribution towards the efforts now being made to emancipate the labouring classes from the tyranny of the public-house club and friendly societies.

Manual of Instructions for the Guidance of Army Surgeons in Testing the Range of Quality of Vision of Recruits, and in Distinguishing the Causes of Defective Vision in Soldiers. By Deputy-Inspector-General T. Longmore, etc., etc. London: W. Clowes and Sons.

*** The introduction of the rifle in the army in place of the old smooth bore musket has laid a new duty upon Army Surgeons. To assist in its performance, this manual is supplied by the Deputy-Inspector-General.

On the Advantages Derivable to the Medical Profession and the Public from the Establishment of Village Hospitals. By Alfred Napper, M.R.C.S. London: H. K. Lewis. 1864.

*** This pamphlet embodies the fourth report of the Cranley Village Hospital, thus enforcing precept by example.

Practical and Pathological Researches on the Various Forms of Paralysis. By Edward Meryon, M.D. London: John Churchill and Sons. 1864.

*** We like the plan of this book, and shall review it at length as early as possible.

Statistical Tables of the Patients under Treatment in the Wards of St. Bartholomew's Hospital during 1863. By George N. Edwards, M.D., and Alfred Willett, F.R.C.S. 1864.

*** Consisting entirely of tables, this pamphlet forms a contribution to the statistics of Medicine and Surgery. We should be glad to see the adoption in future of a plan more in accordance with that in use by the Registrar of the Borough Hospitals. Why should not the registrars meet and agree upon an uniform system?

The Archives of Dentistry; a Record of Dental Knowledge, Medical, Surgical, Microscopical, Chemical, and Mechanical. No. 1. Edited by Edwin Truman, Dentist in Ordinary to Her Majesty's Household, etc., etc. London: John Churchill and Sons, New Burlington-street.

*** In this, the first, number of the "Archives" we recognise some distinguished names as those of contributors. We wish the Journal all success.

Journal of the Scottish Meteorological Society. No. 2, April, 1864. Edinburgh: W. Blackwood and Sons.

*** There is an article in this number which will be read with interest on the "Isothermals of the British Isles for April and October," by Alex. Buchan. We shall have something more to say upon it, probably.

The Dental Review, a Quarterly Journal of Dental Science. April, 1864. London: R. Hardwicke, 192, Piccadilly.

*** This Journal, the second number of which has been just issued, bids fair to fill a recognised gap in Surgical literature.

The Ophthalmic Review; a Quarterly Journal of Ophthalmic Surgery and Science. Edited by J. Z. Laurence, of London, and T. Windsor, of Manchester. No. 1. April, 1864. London: R. Hardwicke, 192, Piccadilly.

*** A new journal. It contains amongst other articles one on "Paralysis of Accommodation Treated by the Calabar Bean," which will be read with interest.

The Australian Medical Journal. No. 34. February, 1864. Melbourne: Wilson and Mackinnon, 78, Collins-street East.

*** In this number is a case in which the common iliac artery was tied by Mr. Lampriere, the posterior operation being preferred.

Treatment of Diseases of the Skin. By Dr. W. Fraser. Dublin: Fannin and Co. 1864.

*** Our first impression of this book is favourable. It has the advantage of brevity.

The Dublin Quarterly Journal of Medical Science. May, 1864. Dublin: Fannin and Co.

*** Contains an interesting historical paper entitled "The Hebrew Medieval and Modern Leprosies Compared," by Dr. Belcher; and a paper by Dr. Law on the "Treatment of Acute Rheumatism," in which he advocates the use of the lancet and colchicum.

The Classification of Skin Diseases. By W. Tilbury Fox, M.D. London: Robert Hardwicke, 192, Piccadilly, W.

*** Dr. Fox reviews the several systems of classification most in use, and suggests a mixed method of his own.

Report of the Directors of the Aërated Bread Company. 1864.

*** The company appears to be extending its business, and pays 12½ per cent. per annum. It has fifteen bakeries and twenty-four depôts for sale. One of the arguments used has been that, by making bread in large quantities, the waste and expense of numerous small establishments might be saved. But the company appears to multiply small establishments.

The Prescriber's Analysis of the British Pharmacopœia. By J. Birkbeck Nevins, M.D. Second Edition. London: John Churchill and Sons. 1864.

*** A second edition of a little work which we lately noticed favourably.

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 28, 1864.

BIRTHS.

Births of Boys, 1030; Girls, 936; Total, 1966.
Average of 10 corresponding weeks, 1854-63, 1762·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	642	592	1234
Average of the ten years 1854-63	578·2	543·0	1121·2
Average corrected to increased population..	..	..	1233
Deaths of people above 90	..	1	1

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	2	5	4	1	7	6	2
North ..	618,210	7	18	8	..	10	21	4
Central ..	378,058	1	23	4	..	5	5	1
East ..	571,158	..	17	12	1	5	11	6
South ..	773,175	5	16	10	1	15	19	1
Total ..	2,803,989	15	79	38	3	42	62	14

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·895 in.
Mean temperature	52
Highest point of thermometer	70·2
Lowest point of thermometer	35·7
Mean dew-point temperature	41·6
General direction of wind	Variable.
Whole amount of rain in the week	0·00 in.

APPOINTMENTS FOR THE WEEK.

June 4. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Alexander Herschel, Esq., "On Falling Stars."

6. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

EPIDEMIOLOGICAL SOCIETY, 8 p.m. Dr. Dickson, R.N., "On the Prevention of Syphilis in the Navy."

ODONTOLOGICAL SOCIETY, 8 p.m. Meeting.

ROYAL INSTITUTION, 2 p.m., General Monthly Meeting.

7. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. Mr. Dunn, "On the Influence of Civilisation upon the Development of the Brain in the different Races of Man." Mr. Crawfurd, "On the Source of the Supply of Tin for Bronze Tools and Weapons of Antiquity."

ROYAL INSTITUTION, 3 p.m. Professor Marshall, "On Animal Life."

8. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m., Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.

9. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m., Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

ROYAL INSTITUTION, 3 p.m. John Hullah, Esq., "On Music (1600-1750)."

10. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Tyndall, "A Magnetical Experiment."

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DINNEFORD AND CO., PHARMACEUTICAL CHEMISTS,

Beg respectfully to inform the Medical Profession that they are now Dispensing Physicians' Prescriptions with the

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CHLORODYNE CHANCERY SUIT.

JANUARY 11th, 1864.

BROWNE AND DAVENPORT versus FREEMAN.

"It was fully proved and established in Court, before Vice-Chancellor Sir W. P. Wood, that Dr. John Collis Browne was the Discoverer of Chlorodyne.

"The Vice-Chancellor observed that Dr. J. Collis Browne's Chlorodyne was known before the Defendant 'Freeman' had ever thought of using the word; that the Defendant's conduct led to a very strong suspicion that there was a gradual course of proceeding on his part to mislead people into the belief that, when they bought his medicine, they were purchasing Dr. J. Collis Browne's Chlorodyne; and that, if the Plaintiffs could show that any one had actually been deceived, an Injunction would be granted."—*Times*, January 12.

Affidavits from eminent Physicians and Surgeons of the Metropolitan Hospitals proved, beyond doubt, that Dr. J. Collis Browne was the discoverer of Chlorodyne; that they prescribe it largely, and invariably mean the original Chlorodyne of Dr. J. Collis Browne.

An Affidavit by Mr. Warington, Chemical Operator to the Apothecaries' Company of London, also established the fact, that Dr. Browne was the inventor of Chlorodyne; that the Company receive large orders for the supply of Chlorodyne for the Public Service, Hospitals, Merchants, and the Profession; and that, when Chlorodyne is ordered, they invariably supply Dr. J. C. Browne's.

Affidavits from Messrs. John Bell, Pharmaceutical Chemists, 338, Oxford-street, and several leading Wholesale Druggists of London, to the same effect, and that, when Chlorodyne is ordered, they invariably supply Dr. J. Collis Browne's.

Sole Manufacturer—J. T. DAVENPORT, 33, Great Russell-street, Bloomsbury, London.

In Bottles, 1 oz, 3s.; 2 oz., 5s.; 4 oz., 8s.; 10 oz., 15s.

Neither Physician nor Surgeon in plaintiff's suit even mentioned Freeman's compound; so much for the *truth* of its being the *preferred* medicine, as stated by the defendant. It is equally untrue that the Vice-Chancellor intimated in the slightest degree that the defendant had the right to the sole use of the prefix Original, as quoted in his advertisement in the "Pharmaceutical Journal," March 1, 1864.

The observations of the Vice-Chancellor, as reported in the "Times," speak for themselves.

Each Affidavit from Physicians, Surgeons, and Chemists affirms that Dr. Browne's Chlorodyne was known to them in 1855; whereas the Defendant "Freeman's" Compound was not heard of until 1859, after the Original Chlorodyne had obtained world-wide fame.

TOWLE'S CHLORODYNE.

OF KNOWN COMPOSITION.

For Formula, &c., see back Numbers.

Extract of Letter from Dr. C. KIDD (Author of Standard Works on Chloroform).—"SIR,— . . . Of the value of Chloroform given internally I have no doubt; it appears to me in that form an anodyne, *sui generis*, that no other anodyne can approach. I have resolutely opposed the use of *secret* compounds of chloroform, and in every way I can encourage the use of the 'Chlorodyne' (if we must have it at all) that is made by you, as you state that its composition is known. Many Medical men think with me, and recommend your compound, but will never prescribe a secret remedy.—CHAS. KIDD, M.D.—Sackville-street, Piccadilly, London, April, 1862.—To Mr A. P. Towle."

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ORIGINAL LECTURES.

LECTURES
ON THE
PROGRESS OF SURGERY DURING THE PRESENT CENTURY.

DELIVERED AT
The Royal College of Surgeons,
By Professor FERGUSSON.

Lecture I.—Monday, June 6, 1864.

Mr. President and Gentlemen,—When the honour was conferred upon me of being appointed Professor of Human Anatomy and Surgery to this College, I felt uncertain as to the manner in which I could best fulfil the duties pertaining to such an important office. Considering the vast fields of Anatomy and of Surgery which I had to choose from, the difficulty of selecting subjects for six lectures seemed at first far from great; yet reflection indicated that already the labourer had been at work in most departments, that the harvest had been stored, and that little remained to be gleaned or garnered, which could possibly be put in comparison with the knowledge already in man's possession. To one who has been a labourer in our Profession for well-nigh forty years, such a selection might at first thought seem easy; a teacher of Surgery for more than thirty years might scarcely feel at a loss for material; but that very fact in a manner tells the real difficulty, for as a teacher one is necessarily in almost constant contact with the Profession, and whatever he may have fancied new or of value has already been made public by the usual channels. In conversations with assistants and friends, in lectures, in the operating theatre, in the pages of public Professional journals, in papers for societies, in pamphlets, and even in portly volumes, the teacher of old standing and fair repute has already communicated his ideas to his Professional brethren so freely and amply, that in his later years he stands literally unburthened of all to which he may at any time have had original claim. It has been his glory to spread knowledge as readily and rapidly as it may have come within his own ken; and such originality as may have been his own has long since become the property of his Profession. Now, the dilemma with me was, that I had nothing new to say. More than twenty years' teaching in a London College and Hospital theatre had, in a manner, used me up; and thinking of the kind of audience I might naturally expect within these walls, I had hesitation and doubt as to what might best suit the occasion. Two courses came prominently before me. I might select a single subject, and say all about it that had been said before by others, and repeat or add all that I myself had said or thought further; or I might select several subjects, in which I had myself taken special interest and had peculiar opportunities, and lay them before my hearers in such a way as to give novelty and attraction to an audience assembled in the heart of London, and in the metropolitan abode of English Surgery. Of the two courses I preferred the latter. If I have nothing new to say, that is, new to my own mind, I may still labour, though in a somewhat novel sphere, to impress such truths as I have learned from experience, to raise doubt where I have reason still to do so, and to venture such suggestions and forecasts of thought as may become one who has spent his whole professional life in teaching, and who now finds himself in the responsible office of Professor of Human Anatomy and of Surgery in this great Corporation.

About the year 1825, when my first intimate connexion with the Profession began, there was a period of calm—at least, that is my impression—such as had not been for many years, and such as none of the present generation has seen. There was literally nothing new in British Surgery, and little from abroad to attract special attention. The great impulse given by Hunter and his disciples had been in a manner embodied with, or, as some might think, had become the embodiment of the Profession. On the Continent, among Surgeons, Dupuytren stood supreme, whilst Graefe, Lisfranc, Larrey, Dieffenbach, and Roux were but a shade behind. The latter had written his celebrated "Parallel," and already Velpeau had indicated his growing worth. In America the names Mott and Warren were associated with the boldest deeds in Surgery; here, among ourselves, Home, Cline, Blizard, Abernethy, Cooper had passed away, or were well-nigh fading from the scene. The same might be said of Tod and Colles. In Dublin Crampton, Carmichael, and Cusack worthily held the highest places in that city; and Brodie, Travers, Wardrop, Guthrie, Anthony White, Key, Stanley, Green, and others yet alive, whose names, indeed, inspire veneration, held sway in this great metropolis. In Glasgow John Burns laboured, I may say, and all unknown, in a field which had been previously occupied by himself and his worthy brother Allan. In Edinburgh the reputation of the Monroes gave a high character to the anatomical and pathological aspect of Surgery, and the family reputation was maintained by the third of the name. The brilliancy of John Bell had, in the early part of the century, given to this school great *éclat*, which was enhanced by his brother Charles, whose name may be honourably included among the worthies of London at the time I speak of; and the solid worth of Benjamin Bell had given a high character to Edinburgh Surgery.

About this date the field of Surgical practice in the northern metropolis was held by gentlemen of high social position and Professional standing; but they were neither professed teachers nor long-experienced Hospital Surgeons; each had served a few years only as full Surgeon in the Royal Infirmary. One, Mr. Wishart, had published translations of Scarpa's works on aneurism and on hernia; but others were unknown to more than local fame. From this list I may bring out and except the name of Russell, the author of an original and still standard work on necrosis, and at that time revered as a surviving pupil of John Hunter. He was, moreover, the first Professor of clinical Surgery, and the only one bearing such a title in the United Kingdom. His position as a model Surgeon was, moreover, by no means prominent; and the pure Surgery of Edinburgh, as the term goes, was little different from that which might be found in any of the large provincial towns in Britain. There was no chair of Surgery in the University; that of the College of Surgeons, which was shortly afterwards abrogated, was held by a clever man, whose health and temperament prevented his taking a foremost rank in practical Surgery; and there seemed little hope for a continuance of the great reputation of this school, when suddenly there appeared on the scene three men, whose labours have added substantially to the renown of the Scotch school, and whose names will be imperishably associated with the history of British Surgery. These men were John Lizars, Robert Liston, and James Syme. I trust that I may be pardoned for making pointed allusions to these Surgeons; but as it was from them that I chiefly gathered many of my own early views on Surgery, I should not wish this opportunity to pass without giving them that honourable mention which, in my opinion, they richly deserve. Mr. Syme still lives in active manhood, with a world-wide reputation, second to none among living British Surgeons. It is considered unbecoming to say that of one yet alive, and yet active on the scene, which may be said in after years. Modern Surgery owes him much, as I shall hope to show in after lectures. Eulogy might seem to partake of flattery; and for my present purpose it may be sufficient to state that at the date referred to this gentleman evinced all that energy of character and aptitude for clinical teaching and for practice, for which he has since become so distinguished. Mr. Liston's fame at this date, particularly as an operator, was well-nigh as great as at any period of his comparatively short but brilliant career. In after years his soundness as a pathologist became more conspicuous, and the numerous valuable preparations in the museum of this College which formed part of his collection bear ample testimony to the greatness of his doings in practical surgery. Both he and Mr. Syme had already published those remarkable essays on amputation which, with the example set by their practice, went far to give that development to the flap operation since attained. Many circumstances contributed to give this Surgeon early fame in Scotland. A well-developed frame, a broad forehead, a strongly-marked, handsome countenance, indicative of great courage and decision, an eye of piercing brilliancy and great expression, at once impressed those who sought his aid with a conviction of his powers. With these were associated a hand alike marvellous for its great size, its silent expressiveness, its vigorous firmness, its lightness, and its dexterity. It was aptly said of it by a distinguished contemporary and admirer, the late Lord Robertson,—"If hard as iron and true as steel in the theatre of operation, it is soft as thistledown

when applied to the throbbing pulse or aching brow." Some operations of great magnitude and comparative novelty, aided by a certain amount of jealous opposition, which merit is sure to call forth, brought his fame impressively before the public; and among his achievements may be mentioned the successful removal of a scrotal tumour of more than forty pounds weight, the first operation of the kind ever performed in this country, and a successful ligature of the subclavian, which had been essayed in vain by Ramsden and others in Britain. When personal recollections have passed away, there will remain much to associate Mr. Liston's name with Surgery, but the greatest features of his teaching powers will be forgotten. With a less than average facility of speech, he had a manner in all that he did before his pupils that produced the deepest impression, and there was a style in his operations which has had more influence in this department, among a large number of pupils, than has ever been produced, in as far as I can make out, by any other man in the history of Surgery. Only those who have seen him can thoroughly appreciate what I am now saying. Of Mr. Lizars there is now probably less known than of the two gentlemen just referred to, but his fame was great at the time. His folio work on anatomy, with which he incorporated most of his views on operative Surgery, had contributed largely to his reputation. Initiated to the profession by John Bell, to whom he served a pupilage, he seemed to have imbibed some of the characteristics of that great Surgeon. He was a very successful teacher, both of Anatomy and Surgery, an excellent pathologist; a brilliant and daring operator, his name will ever remain associated with the early history of modern operations on the upper jaw. He was the only man in Scotland who had placed a ligature on the innominata. The operation was unsuccessful, but it went far to prove what was then not so well recognised as now, that secondary hæmorrhage in such cases is more likely to come from the distal than from the proximal end of a tied vessel. He was the second to perform ovariotomy, and its practical originator in Britain. Like many pioneers in art and science, he was for this assailed by a certain amount of ridicule, associated with vigorous opposition; and thus was thrown into abeyance an operation which, thirty years later, has produced as much excitement as has been associated with the early history of any great Surgical proceeding. Whatever may be the fate of ovariotomy, the name of John Lizars must always be associated with it.

I may be wrong, but the impression is strong in my mind, that an impulse to the more accurate study of Surgical anatomy arose coeval with the development of the Hunterian operation. Before I knew the Profession all the great arteries had been tied, from the superficial femoral to the abdominal aorta and the innominata, on the principles of our great Surgical philosopher. The Surgical anatomy of the arteries had occupied the attention of many first-rate anatomists of the early part of this century; and whilst the operations in question were excitingly attractive, others were not overlooked, and hence Surgical and regional anatomy took a wide field, and the works of Charles Bell, Abraham Colles, Astley Cooper, John Shaw, Hargrave, and of others, testified to the zeal and curiosity of Surgeons in those times in anatomical pursuits having direct relation to their calling. It is an anecdote worth bearing in mind, that when Astley Cooper was engaged in his great and interesting labours on hernia nothing would satisfy him but a sight of the fact that the obturator artery might encircle the inner side of the neck of a crural hernia. The first preparation that gave this proof was in the museum of the famous professor of anatomy in Edinburgh, John Barclay (now incorporated in the collection of the Royal College of Surgeons of that city), who actually forwarded it to London to satisfy the hesitation of the great Surgeon. It was returned with most complimentary thanks; and this anatomical fact, now familiar to the simplest novice, was soon after made extensively known to the Professional world. There were manuals of anatomy in those days, written by men who have since held the highest Professional positions, which have really left little for the practical Surgeon to desire. In fact, the subject was in a manner exhausted. Whatever was essayed as novel seemed in reality but a repetition of something already done and known, and with an occasional exception there was little left for the modern anatomist but transcendentalism and minute observation. Investigations on ill-defined and obscurely-developed quantities have, I fear, taken largely the place of wholesome surgical anatomy; and whilst I shall not go so far as to say that they are not of great value to the education of the practical Surgeon, I may state that I have often felt inclined to protest against a system which seems to draw little or no distinction between this kind of so-called philosophy and that common-place but common-sense anatomy which is of essential service to the practical Surgeon. With some it almost appears as if the bulk of the two-thousandth part of an inch were of equal importance to the Surgeon as the outlines of the sterno-mastoid or deltoid muscles; and with many it seems to me that there is really little or no difference of essential value between, we will say, blastema and bone, molecule and muscle, cytoblast and cellular membrane—nay, actually, that once familiar term is now in some degree tabooed, and a man's acquirements are suspected, if he does not use instead the modern one of areolar tissue. In Surgical pathology it was known that a person might live with an obliterated aorta, and might survive the loss of an upper or lower extremity. Inflammation, with denudation of bone, was commonly believed to necessitate amputation; and diseased joints, with ulceration of cartilages, particularly denoted by crepitation, were generally deemed incurable, excepting by removal of the limb. Tumours of enormous size were frequently met with; and the disease then familiarly known as fungus hæmatodes was more common than in the present day,—in both instances, doubtless, from timidity on the part of those who feared to meddle with what the modern Surgeon arrests in early progress. But a vast amount of important material had been accumulated by the practical men of the day; and the works of Lawrence on "Hernia," Brodie on the "Joints," Thomson on "Inflammation," Hodgson on the "Arteries," and Cooper on "Dislocations," may be referred to as types of the most valuable and precise Surgical pathology which had been given to the Profession. Pupils and Practitioners had for study and reference in Surgery, and to some extent in anatomy, the standard works of Boyer, of Benjamin Bell, of John Bell and Charles Bell, of Abernethy, and of Samuel Cooper, whose "First Lines" was for long the favourite text-book, and whose famous dictionary has perhaps not been excelled even to the present day.

Some naval and military Surgeons had contributed largely to our general knowledge. Besides the labours of Hunter and of John Bell in these departments, it is in accordance with the intended spirit of this lecture that I should refer to those of Veitch, Copland Hutchison, Larrey, Hennen, and Guthrie. Although I am myself disposed to take exceptions to some of the doctrines of these gentlemen, so far as they claim to be invariably applicable to the practice of Surgery in civil life, I willingly acknowledge the great merits of those who gave us so much information after the cessation of our wars with Napoleon I., and that much additional material of unquestionable novelty and value has been added to our stores by the publication of the so-called Military Surgery of that eventful period. In Smiles's "Lives of Engineers" a dozen or more of those who first worked in this noble science are told off, each with a brief yet interesting memoir comprised within a few pages; but as engineering has advanced in progress of time, the works of Laboulaye and Myddelton, of Metcalfe and Brindley, seem to be surpassed by those of Smeaton, Telford, and Rennie, until at last a whole volume is required for the life of the elder Stephenson. Were we to compute the progress of Surgery in a similar manner, to what limit might the lives of great Surgeons not go? To look within the present century, volumes might be written, in which most of those names already mentioned would stand pre-eminent; and it would not be difficult to mark out many of the living generation with whom the progress of Surgery is closely associated. It is the boast of those who live in the nineteenth century that progress in all that pertains to civilisation has been greater than in any similar period in history. I cannot venture to claim for Surgery the world-wide impression that has been made by steam, by electricity, by engineering, or by mechanics; yet our art and science have not stood still. If there have been changes and reforms in our laws and civil institutions, for the improvement of our social atmosphere—and who can entertain a doubt on the subject?—we may point to *our* changes, *our* reforms, *our* improvements also.

Few things have struck me as more remarkable than the simplicity of appliances and dressings in modern Surgery among the best class of Practitioners. This arises, I believe, from a better appreciation of the powers of nature, and a more humble idea of our own, as to forcing that which can only come in time. It is perhaps in the increased knowledge and better treatment of wounds that the philosophy of Surgery has been most evinced in modern times. The days of the secret dressings and of sympathetic powders have passed

away, and such a man as Kaulbach, whom John Bell designated as a respectable quack, or a pretender like Sir Kenelm Digby, even if, like that famous man, secretary to a king, would have no influence on the Profession, and little on the public now-a-days. Yet Digby, had he belonged to our Profession, would nearly have been a philosophic Surgeon. If, after bringing the edges of a wound into accurate contact, and keeping them so by simple means, instead of affecting mystery and enacting the part of a mountebank, he had told his patient he had done all that man could do, and that nature and time would do the rest, he would have struck the key-note of that which constitutes, in my opinion, a great feature in modern practice. The secrecy and sympathy consisted in reality in simplicity; and it remained for John Hunter and for what John Bell called the London School to give us our present views on such subjects. Professor Hughes Bennett, of Edinburgh, has in recent years insisted much on what he calls rational medicine, the term evidently implying the existence of a converse. It is not for me, in my present position, to say much about the practice of physic, but I do not hesitate to say that there is room for rational Surgery to make useful way. "*I* cure," or "*we* cure," is too much in our vocabulary; and it would be more in accordance with the knowledge we possess of nature's actions were we to affect less in this respect, whilst there is a broad margin on which the guiding hand of the Surgeon might take full credit. It has, indeed, been truly said that Surgery is the handmaid to nature, and when the service is judiciously administered our work appears in the greatest perfection. Nature, in many of her inscrutable ways, does that which offends our common humanity: she brings us fevers, atrophies, consumption, cancers, over which we have but little control. Livingstone has told us that, in parts of Africa where the lights of civilisation have not yet appeared, most of those diseases which are at present the scourge of Europe have not yet been seen. May it not be that our boasted civilisation has brought upon us many of those evils which, with a sort of negative consolation, we say, in poetic language, that flesh is heir to? Does not the very style of living interfere with nature's healthful actions in civilised man? Who in these isles can boast of success in lithotomy such as that obtained by our Surgeons who practise in Asia? Were cases of elephantiasis scroti prevalent among us, is it likely that we could boast of saving twenty-two patients out of twenty-four operations? Yet such success has been recently recorded by Professor Ballingall, of the Grant Medical College, Bombay. With all deference to our friends and contemporaries, it cannot be admitted that this success comes from superior skill or dexterity; it is from the subject on which they work—the nearest approach to perfect nature, irrespective of what we fondly call civilisation, civilised habits.

In speaking of wounds, I should not be doing justice to my own views and experience, nor to the efforts of others, were I to omit reference to the more common use of stitches than was sanctioned some thirty or forty years ago. When early and perfect union is desired in a line of considerable length, they far surpass other methods, and, when judiciously applied, possibly, in many instances, with a due share of additional support, they are of the utmost value. Throughout my experience I cannot say that I have seen the slightest evil arise from them, whilst the best possible good has often been derived; in fact, some of the greatest triumphs of modern Surgery are associated with this simple mechanical process; for how else could so much have been done with those vesico-vaginal fistulæ which so baffled our forefathers, and are so amenable to skilful operative management? How else could the operation for cleft palate have been successfully accomplished? How else could we have dared to lay open the walls of the abdomen to the extent of six, twelve, or fifteen inches? Much has been said in recent times of the superiority of wire over thread, as the material for the stitch; but, for my own part, I deem the matter of comparatively little importance, whilst I do not hesitate to proclaim my preference to common silk thread for general use. Until within the present century there was no positive remedy for stone in the bladder, but a painful and dangerous operation—a cutting operation. The highest talent, skill, and manipulative dexterity have been evoked to set aside the dangers of that proceeding; Surgeons have cut twenty, thirty, fifty patients, losing, perhaps, only one; but a more extended experience has had the effect bringing the average of fatality down to the certain loss of one in six or ten. Men have vainly prided themselves on their success—some because of the peculiar shape of their knife, some on the supposition that they have operated more dexterously than others, and superior success has even been claimed on account of a special prayer and appeal to the Almighty just before commencing. We know full well how, in the mysterious ways of Providence, man's best efforts have failed, his holiest aspirations have seemingly been thwarted. Happily we of the present day have lived to see the perils and uncertainties of lithotomy set aside, in a large number of instances, by the less formidable, and possibly more successful, proceeding of lithotrity. The development of this operation has been within our own time; it is of foreign origin, and British Surgeons have taken slowly to it. Until within these twenty years, it was practised by few, but latterly it has come into more general use; and if patients would but apply at an early date, when the stone is small, the judicious application of this operation would go far to supersede the use of the knife, and make lithotomy exceptional. As evidence of the high and useful character of the operation, it has been applied alike to the peasant, the artisan, and the wearer of a crown. Whilst we do all honour to the labours of Costello Heurteloup, and especially of Civiale, in developing this proceeding, it is worthy of note that the essential features of the instrument now in use are of English origin, these features being the male and female blades, with the sharp curve at the end, where the crushing force is to be effected, and the screw for that special purpose. This instrument and these devices have resulted from the efforts of our celebrated instrument-maker, Mr. Weiss.

For my own part, I am almost disposed to consider that the treatment of distortions by division of tendons muscles and fascia—a treatment founded on a better appreciation than formerly of anatomy physiology and pathology—constitutes, perhaps, the most striking example of modern improvements which I could bring under your notice. What can be more creditable to Surgery or to our character in the nineteenth century than such a sight as this (pointing to a drawing)? Here is a very tolerable human figure turned from such a distortion as this—(pointing to another). I take the greater pleasure in referring to this case, as it was treated by one of our provincial Surgeons, Mr. Wiblin, of Southampton, who, in the discharge of his duties, like many of his fellow labourers, undertakes the treatment of most ailments that come within his cognizance with energy, skill, and success, such as may well be admired, or possibly envied, by his metropolitan contemporaries. Cutaneous puncture and subcutaneous division, with a narrow blade, so as to prevent the access of air, make Stromeyer's name worthy of all honour in all time to come; and the development of new tendon in some of these cases is a fine illustration of what nature will do when man judiciously interferes with some of her imperfect works. How hopeless was our practice for strabismus in former times! We neither knew the cause nor the means of cure. Now observe the effect of the scientific reasoning of Dieffenbach. In the generality of such cases the division of the internal rectus of the eye restores the symmetry of these important and attractive organs. Here the simplicity of the idea almost leads us to overlook its magnitude and scientific character. The illustrious Roux thought his achievement great when he could close by operation the cleft palate, as if it were a hare-lip, and be successful in securing union in two cases out of every three operated upon. It is my intention to show you in some future lecture how, by division of the levator palati on each side, the operation may be rendered almost as certain in its results as that for fissure in the lip, and that the average failure is about one in twenty-seven or thirty. The skill with which raw surfaces are made and approximated says much for modern progress. Our plastic operations are more marvellous than ever entered the imagination of Taliacotius or the poetic mind of Butler. The almost fabulous transplanting of one part of the body to a distant surface has been realised,—the skin on the back of the neck has been lifted forwards to supply a deficiency in the front, and a portion of the skin of the abdomen has been made to do permanent duty on the forearm. Among plastic operations, and as illustrations of the value of union by the first intention, I may here refer especially to reparation of the face, and to the closing of wounds and unnatural openings in the urinary organs and parts of generation, particularly in the female. A word of praise in these departments is justly and specially due to our Transatlantic brethren; and among ourselves there are many whose triumphs in these cases do the utmost credit to modern Surgery. The application of the stethoscope to Surgical diagnosis, the extensive use of the microscope in pathology, the invention of the laryngoscope and its recent

application in practice, are all interesting features in modern Surgery. The ophthalmoscope, too, is one of the most ingenious and clever inventions to which Surgery is indebted; nor can there be a doubt that in special cases the speculum also is of much service. I must leave it to greater enthusiasts, and those more skilled than myself, to dilate upon the marvels divulged by these instruments, and to fix upon their relative value as additions to the Surgery of the present century. Ophthalmic Surgery has made wonderful strides within our own time; but I do not profess myself competent to dwell on such a theme. It is pleasing to see that those who excel in this department, particularly among ourselves, are gentlemen who, from their education and competency, are fitted to hold the highest places in general Surgery, and that many of them have held, and now hold, foremost rank in our Profession. Let me here express a hope that some future Professor in this chair may be able to say as much for all who may devote themselves to the specialities of modern custom.

Excisions or re-sections—the words seem synonymous—have claimed a large share of modern attention; for although we owe to the last century many such proposals, and several examples, it is within the present that much has been said about them. Here is a sketch showing the whole of the ulna, with an inch and a-half of the lower end of the humerus, which were removed by Staff-Surgeon Williamson. The other part of the picture shows the arm twelve days afterwards. There was a rapid recovery from the wound, with a useful arm and a hand, including free motion of the joints. Unfortunately, this person died of consumption between two and three years after; but the case is one among many showing the progress of modern Surgery; and ere these lectures are done I shall have many of a like kind to refer to.

But time presses, and I shall conclude this my present address by a reference to some matters which need not be dwelt upon in other lectures. Of these, that of anæsthesia may be deemed most remarkable. No single appliance in Surgery can, in my opinion, be compared with it; for, long before its discovery, most, if not all, of the great achievements of our art had already been accomplished. The amount of suffering which can now be set aside enables us to relieve surgery of much of its horrors, and to exclude from the patient's senses that which was anguish, suffering, and torture; whilst generally it permits the Surgeon to perform his study with a serenity of thought and action far different to his predecessors. On this subject America again must have the palm of precedence. There sulphuric ether still holds the first place as the anæsthetic agent; whilst with us chloroform, whose influence was first observed and made public by one of our distinguished contemporaries, is considered the most useful.

Not long ago Dr. Marion Sims, with laudable enthusiasm, claimed for metallic stitches the honour of being, in our Profession, the greatest discovery of the nineteenth century. Few Surgeons of practical experience will endorse this idea; but I see nothing which has transpired in the present century which in magnitude and importance can compare in our annals with anæsthesia; and in my mind it ranks in value to mankind scarcely less than the results of the labours of Harvey and Jenner.

We congratulate ourselves that we have been permitted to live in times when man has displayed his mastery over steam and electricity; and with us, in our special profession, there have been agencies at work whose usefulness may be said to be literally beyond calculation. I allude to the improved facilities for education, to our social professional customs, to the modern press, and our own special literature. Our schools have increased in number; our great public Hospitals associate more extensively than ever education with charity; our handbooks, our works of reference, our means for learning, our appliances for teaching, are beyond compare, and facilities for studying anatomy have, by wise legislation, been placed lawfully within reach. Our societies and professional gatherings have encouraged and facilitated the diffusion of knowledge; man meets man face to face; thoughts flash almost simultaneously from brain to brain; and there is no longer a difficulty with those in places distant from the metropolis to find out even some roundabout way of communicating interesting or useful knowledge to the Profession. A Surgeon to a Liverpool Hospital in the present day need not, as Park did in 1782, address himself to a leading Hospital Surgeon in London, to give currency to his aspirations; nor need the Munros of our day keep their originality under the cold shade of an academy or a corporation. Besides the facilities for individual and independent publication, there are our quarterly, monthly, and weekly journals, to carry knowledge to the ends of the earth. We pride ourselves in this country on the liberty of the press; we fondly call it our fourth estate;—politically and professionally it may be called the pulse of the public mind, and among ourselves, and in our own time, it beats with a healthy vigour, indicative of all those changes for the better which I have thus endeavoured to sketch, although, I fear, but feebly, within the limits of a single lecture.

ORIGINAL COMMUNICATIONS.

NOTES ON ANIMAL MECHANICS.

No. I.—ON THE MUSCULAR MECHANISM OF THE HIP-JOINT IN MAN.(a)

By the Rev. SAMUEL HAUGHTON, M.D.,
Fellow of Trinity College, Dublin.

Introduction.—In the course of the following notes on the muscular mechanism of the joints in man and other animals I shall have occasion to use certain principles, or postulates as I prefer to call them, which are not yet employed generally by anatomical writers; and for this reason I shall here give a few words of explanation respecting them.

These postulates are two in number, and are as follows:—

Postulate 1.—That the amount of Work done by a muscle in a given time is proportional to its weight, *i.e.*, to the number of muscular fibres in contraction.

Postulate 2.—That the mean lengths of the different muscles employed at each joint are proportional to the perpendiculars let fall from the centre of motion of the joint upon the directions in which the muscles act.

In the statement of the first postulate there is, of course, a slight error, arising from the different amounts of cellular tissue and fascia entering into the composition of each muscle. This, however, only introduces an error proportional to the differences of the cellular tissue and fascia in the different muscles, which may be regarded as small. So far as my experiments have led me, I incline to the opinion that such muscles as the heart and psoas, composed nearly altogether of muscular fibres of fine texture, are capable of giving out their work for a longer time than muscles of an opposite character, such as the glutæus maximus and deltoid; but that for an interval of time less than that requisite to produce fatigue, the work given out is the same for both classes of muscles within small limits.

The reasonableness of the second postulate may be shown from the following considerations:—

1. The distance through which the point of application of a muscle is moved by its contraction is proportional to the mean length of the muscle.

2. It is geometrically evident that the perpendiculars let fall on the directions of the muscles are proportional to the spaces moved through by the points of application.

3. The Divine Contriver of the joint has made a perfect mechanism, and therefore employs a minimum expenditure of force.

If the third of these considerations be admitted, *Postulate* 2 follows from the first two considerations, for otherwise there would occur a waste of force, some of the muscles having ceased to act before the others had expended their store of force.

Professor Donders, of Utrecht, has, indeed, proved by direct measurement that the lengths of the muscles acting on the human elbow are nearly proportional to the distances of their points of application from the joint; and I believe that he would have found a still more exact agreement if he had used the perpendiculars instead of the distances. The following corollary follows from the two postulates employed:—

Corollary.—The moment of each muscle, with respect to the centre of the joint, is proportional to its weight. Let F be the force of the muscle, p the perpendicular let fall upon its direction from the centre of the joint, x the space through which the muscle contracts, and l its mean length. The work done by the muscle is Fx, which is proportional to Fl, and therefore to Fp by the second postulate; but Fx is also proportional to the weight of the muscle by the first postulate; and therefore Fp, which is the moment of the muscle, with

(a) Read before the Royal Irish Academy in January, 1864.

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respect to the centre of the joint, is also proportional to its weight Q.E.D. Hence it follows that—

Corollary 2.—The weights of the muscles surrounding the joint may be regarded as moments of the forces, and may therefore be compounded by the law of composition of moments or couples.

The action of the muscles that move the thigh upon the hip is usually referred by anatomists to three classes of motion:

a. Rotation outwards or inwards,
b. Flexion or extension.
c. Abduction or adduction.

If we imagine three rectangular co-ordinates drawn at the centre of the acetabulum in the following manner:—

a. Vertical axis,
b. Horizontal lateral axis,
c. Horizontal antero-pesteral axis,

it is easy to see that rotation round these axes corresponds with the three recognised classes of motions, and as every motion, however complex, of the thigh upon the hip must be a rotation round some diameter of the sphere of which the acetabulum forms a portion, it is evident that every such motion may be interpreted correctly in the usual way, by the aid of the composition of rotations.

Such a method of interpretation, although exact, is not simple, as the axes of co-ordinates are not chosen with reference to the forces and directions of the muscles themselves, but with reference to directions, vertical and horizontal, arbitrarily assumed beforehand.

In the following note I shall endeavour to establish the existence of three axes of co-ordinates, to which the motions of the hip-joint may be referred, and which possess not only greater simplicity than other systems of axes, but also other properties of great interest and importance.

The centre of the acetabulum is the centre of motion of the thigh upon the hip; and the centre of motion of the body upon the pelvis is situated in the junction of the fifth lumbar vertebra with the sacrum. If these two centres of motion be joined, we have a geometrical line to which the motions of the hip-joint ought to be referred. In the erect posture in man, this line is the axis of the neck of the femur, and is essentially an oblique line, making acute angles with all the three axes of anatomical writers.

The anatomical and mechanical problem which I propose to solve is the following:—

"To find the simplest planes passing through the centres of motion of the body on the pelvis, and of the hip on the thigh, to which the forces of the muscles of the hip-joint can be referred."

I shall commence by recording the observations made upon a human subject, which was a female, aged 40, weight 82 lbs., and height 65½ inches. I selected a female subject, in consequence of my first comparative dissections having been made on a female Cercopithecus.

The weights of the body, viscera, and muscles of this subject were found to be as follows:—

TABLE I.—PHYSICAL DATA (WOMAN).

(*a*) *Body and Viscera.*

1. Body	82 lbs.	1312 oz. av.
2. Brain		53¾ ,,
3. Heart		7¼ ,,
4. Right kidney(b)	7¼ oz.	16¼ ,,
5. Left kidney(b)	9 ,,	
6. Liver(b)		119¼ ,,
7. Spleen		7¼ ,,

(*b*) *Posterior Muscles of Hip-joint.*

1. Glutæus maximus	11⅛ oz.
2. Glutæus medius	7⅛ ,,
3. Glutæus minimus	2¾ ,,
	21¾ oz.

(*c*) *Anterior Muscles of Hip-joint.*

1. Iliacus	2¾ oz.
2. Psoas magnus	1⅝ ,,
3. Psoas parvus(c)	0¼ ,,
4. Pectinæus	0¼ ,,
5. Adductor longus	1¾ ,,
6. Adductor brevis	1¼ ,,
7. Adductor magnus	11¾ ,,
8. Gracilis	1 ,,
	21 oz.
9. Sartorius	2¼ oz.
10. Tensor vaginæ femoris	1⅛ ,,

(*d*) *Flexors of the Knee-joint.*

1. Biceps femoris	3¼ oz.
2. Semi-tendinosus	1¼ ,,
3. Semi-membranosus	2¾ ,,

(*e*) *Extensors of the Knee-joint.*

1. Rectus femoris	2¾ oz.
2. Triceps extensor (Viz., vastus, externus, internus, and crureæus.)	17 ,,

(*f*) *Rotators of Hip-joint.*

1. Pyriformis	1 oz.
2. Obturator externus	0¾ ,,
(*g*) Quadratus lumborum	0⅝ oz.

h. Muscles of the Leg and Foot.

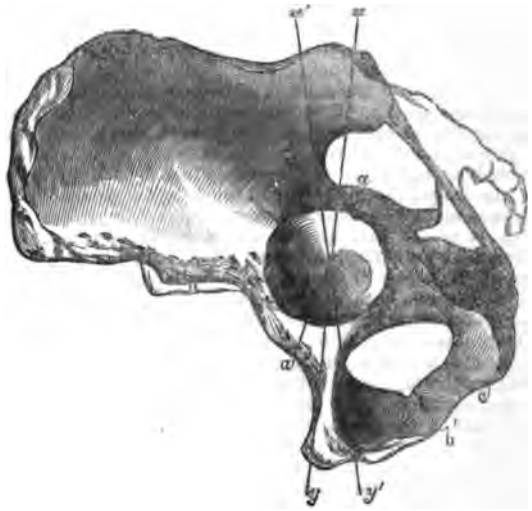
1. Gastrocnemius	3¼ oz.
2. Plantaris	0⅛ ,,
3. Solæus	5⅛ ,,
4. Poplitæus	0⅛ ,,
5. Peronæus longus et brevis	1¼ ,,
6. Flexor proprius	0¾ ,,
7. Tibialis posticus	1⅝ ,,
8. Flexor communis digitorum	0¼ ,,
9. Tibialis anticus	1⅓ ,,
10. Extensor communis digitorum and peronæus tertius	0¼ ,,
11. Extensor proprius hallicis	0¼ ,,

(b) Both kidneys were fatty, and the liver was fatty and enlarged.
(c) I have placed this muscle among the muscles of the hip-joint, because the connection of its tendon with the *fascia iliaca* enables it to modify the action of the *M. iliacus*.

Posterior Muscles of Hip-Joint.

The posterior muscles, or *glutæi*, act on the hip-joint in the manner represented in the annexed diagram (Fig. 1), which shows the sacrum, os coccygis, and innominate bone of the left side.

FIG. 1.



The *glutæus maximus* produces a rotation round the centre of the acetabulum in a plane passing through the line *a*; the *glutæus medius* in a plane passing through *b*; and the *glutæus minimus* in a plane passing through *c*.

The angle between *a* and *b*, measured at the centre of the sphere, is 49°; and the angle between *a* and *c* is 64°.

Taking the Moments of the three muscles with respect to the centre of the sphere, we find the resultant of all supposed to be in action together, as follows:—

Measuring X along *a*, and Y at right angles to it, we obtain,—

$$X = 11{\cdot}5 + 7{\cdot}5 \cos. 49° + 2{\cdot}75 \cos. 64°,$$
$$Y = 7{\cdot}5 \sin. 49° + 2{\cdot}75 \sin. 64°.$$

from which follows—

$$X = 17{\cdot}62 \text{ oz.}$$
$$Y = 8{\cdot}15 \text{ ,,}$$

and $\sqrt{X^2 + Y^2} = 19{\cdot}41$ oz.

$$\frac{Y}{X} = 0{\cdot}4625 = \text{Tan } (24° 49').$$

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The resultant direction of the glutæal muscles is represented by the line $y\,x$, which nearly coincides with the ilio-pectinæal ridge, and lies somewhat inside a tangent plane from the centre of the acetabulum to the greater ischiadic notch. (d)

The resultant plane xy passes through the body of the fifth lumbar vertebra, and between the spinous processes of that vertebra and the first sacral vertebra.

Anterior Muscles of Hip-joint.

The first eight of the ten anterior muscles have the following action :—

1. *Iliacus*,
2. *Psoas magnus*,
3. *Psoas parvus*, } $4\frac{1}{2}$ oz.,

move the head of the femur in the plane a', which is found to be the prolongation of the diameter a; and their action, therefore, is directly the opposite of that of the *glutæus maximus*.

4. *Pectinæus*,
5. *Adductor longus*, } $2\frac{1}{2}$ oz.,

move the head of the femur in the plane containing the ilio-pectinæal ridge, or very nearly in the plane of the resultant of the *glutæi* muscles.

6. *Adductor magnus*,
7. *Adductor brevis*, } 13 oz.,

produce motion along the line b', which is opposite to b, the direction of the *glutæus medius*; and, lastly, the

8. *Gracilis*, . . 1 oz.,

moves the head of the femur in the plane c', opposite to c, the direction of the *glutæus minimus*.

Compounding the moments of these muscles as before, and using the line $a\,a'$ as our origin of X, we obtain—

$$X = 4\tfrac{1}{2} + 2\tfrac{1}{2}\cos. 25° + 13\cos. 49° + \cos. 64°.$$
$$Y = 2\tfrac{1}{2}\sin. 25° + 13\sin. 49° + \sin. 64°.$$
$$\sqrt{X^2 + Y^2} = 19{\cdot}89 \text{ oz.}$$
$$\frac{Y}{X} = \text{Tan. } (36° 47')$$

The close agreement in magnitude between the resultant of these muscles (19·89), and that of the glutæi (19·41) is very remarkable; and the difference of angle between them (11° 58′) is not more than might have been anticipated from unavoidable errors of observation.

The resultant of the anterior muscles is shown in the figure by the line $x'\,y'$. The bisector of the angle between the lines $x\,y$ and $x'\,y'$ is a tangent to the ischiadic notch, and coincides with the ilio-pectinæal ridge.

The diametral plane of the acetabulum just found containing the ilio-pectinæal ridge and touching the ischiadic notch possesses many remarkable properties.

1st. It passes through the centre of the anterior line of junction of the fifth lumbar and first sacral vertebræ; *i.e.*, through the centre of motion of the body on the pelvis.

2nd. It gives, both as respects distribution of matter and geometrical form, the section of the pelvis, which offers the maximum resistance to forces acting from the outside.

3rd. It is the plane of the resultant of the muscular forces acting on the hip-joint, both with respect to the posterior and anterior muscles. This plane may be called the ilio-pectinæal plane, and is the plane of maximum moments acting on the hip-joint.

Remaining Muscles of Hip-joint.

In addition to the eleven muscles, whose action has been already considered, there are six others which act upon the hip-joint. They all act upon the joint, so as to cause it to rotate upon the head of the femur in a plane at right angles to that already found to be that of the resultant of the posterior and anterior muscles. This plane passes through the tuberosity of the ischium, and falls just inside the interior rim of the ilium. Three of the muscles in question act on one side, and three on the other side of the centre of motion, and in the erect posture their movements on the head of the femur are exactly balanced. They may be called the ischiac and iliac muscles, with reference to their action on the hip.

Ischiac Muscles (Flexors of Knee).

1. Biceps femoris (part) . . .
2. Semitendinosus . . . .
3. Semimembranosus . . . } $7\frac{1}{4}$ oz.

Iliac Muscles (Extensors of Knee, in part).

1. Tensor vaginæ femoris . .
2. Sartorius . . . . .
3. Rectus femoris . . . . } $6\frac{1}{2}$ oz.

The resultant plane of the portion of the biceps attached to the ischium, and of the two internal ham-string muscles, is at right angles to the ilio-pectinæal plane; and the resultant of the action of the *tensor vaginæ* and of the *sartorius* coincides with the plane of the *rectus*, and also is at right angles to the ilio-pectinæal plane.

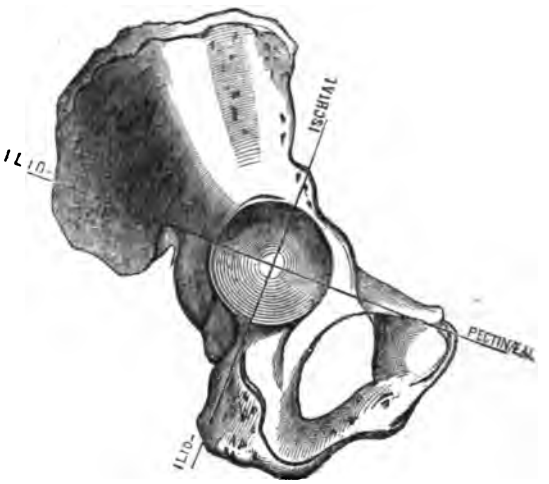
Considering that only a portion of the *biceps* acts on the hip, and that in the erect posture the leverage of the muscles on the head of the femur is equal and opposite, it is manifest that these two groups of muscles, as well as the posterior and anterior groups, balance each other's actions. This plane of resultant forces may be called the ilio-ischial plane; it is at right angles to the ilio-pectinæal plane, and intersects it along the line joining the centre of the sacrolumbar articulation with the centre of the acetabulum, that is to say, the line joining the centre of motion of the body on the pelvis with the centre of motion of the hip upon the thigh.

In the erect posture neither of these planes are vertical, and the diameters of the acetabulum corresponding to them make angles of about 45° at each side of the vertical diameter.

The ilio-ischial plane makes a section of the os innominatum, not so strong as that made by the ilio-pectinæal plane and its curvature is in the opposite direction, being slightly concave outwards, while the curvature of the ilio-pectinæal section is strongly convex outwards. From this and other considerations it follows that the ilio-ischial plane has relation rather to the support of the weight of the body than to resistance to forces acting from without.

The accompanying figure (2) represents the os innominatum of the right side, drawn from a point of view situated on the line joining the sacrolumbar articulation with the centre of the acetabulum, and, therefore, shows the traces of the ilio-pectinæal and ilio-ischial planes, as two right lines intersecting at an angle of 90°.

Fig. 2.



The Fig. 3 shows the section of the os innominatum made by the ilio-pectinæal plane, in which, as I have shown, the resultant couples of the principal muscles acting on the hip-joint are situated. The cancellated portion of the bone is dotted, and the dense part is shaded in lines. It would require a separate paper to show how admirably adapted this form of

Fig. 3.

(d) It was through this notch that Mesiones was in the habit of piercing the bladders of his flying enemies; Il. E. 65—68 and Il. N. 650—655, and the bone mentioned is the *ilium*, and not the pubes, as the commentators suppose. It is very possible that Homer may have seen such a wound inflicted through the buttock, for his description of the wounded man wriggling on the ground like a worm could only have occurred to an eye-witness, and the sciatic nerve was necessarily divided by the blow.

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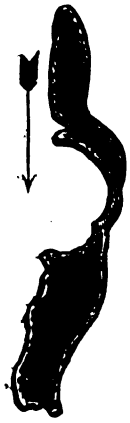
section is, either to resist a shock acting in the direction of the arrow, which the bone receives in jumping down from a height on one foot or to counteract the strain produced by the muscles acting from the periphery of the bone upon the femur.

In Fig. 4 I have shown the section of the os innominatum made by the ilio-ischial plane, at right angles to the ilio-pectinæal plane.

FIG. 4.



TUBER ISCHII.

This section of the bone is rarely called upon to resist any strain in a transverse direction, and when the cavity of the acetabulum is completely filled by the head of the femur, its strength to resist vertical pressure, as in sitting, is very great.

Some interesting deductions may be made from the weights of the muscles, classified into groups, suggested by the preceding analysis.

The total weight of the muscles of the hip and knee-joints, named *b*, *c*, *d*, *e*, is found to be 73·50 ozs.; of this amount 21·75 ozs. are included in the three *glutæi*, 21 ozs. in the group of eight muscles antagonistic to the glutæi, 23·5 ozs. in the extensors of the knee (including the *tensor vaginæ*, which aids the *quadriceps extensor*), and 7·25 ozs. are included in the flexors of the knee-joint.

Expressed in percentages of the hip and knee-joint muscles, these groups have the following values:—

1. Posterior muscles of hip-joint . 29·6 per cent.
2. Anterior muscles of hip-joint . 28·6 „
3. Extensors of knee-joint . . 31·9 „
4. Flexors of knee-joint . . . 9·9 „

The first three groups of muscles are here of nearly equal force, while the fourth is about a third of each of the first three.

SURGICAL INQUIRIES.—No. II.

A SIMPLIFICATION OF THE EXTRA PERITONEAL OPERATION IN THE SEVERAL VARIETIES OF STRANGULATED HERNIA; WITH OBSERVATIONS ON THE ANATOMY OF HERNIA.

By FURNEAUX JORDAN,

Surgeon to the Queen's Hospital, Senior Surgeon to the Birmingham Eye and Ear Hospital.

WHEN a Surgeon desires (there are cases of strangulated hernia which he does not desire to return by the taxis) to effect reduction in any given case of strangulated hernia, but is unable, even with the full assistance of chloroform, to attain his object, it is not a little surprising that he should refuse a measure which, in the great majority of cases, will give to the gentlest pressure a successful result;—a measure, too, which, if unsuccessful, involves no delay, and entails no disadvantage in the resort to further proceedings. An operation simple, slight, based on clear principles, and intrinsically free from danger, gives the Surgeon the power of employing the taxis with an almost certainly felicitous result. If a contrast be made between the following wounds the surprise will not diminish:—In one an almost subcutaneous incision is made into the fibrous margin of the constricted aperture, the peritoneum is uninjured, and, in the operation I perform, unapproached. Such an incision in a state of health would be altogether free from danger. In the other, long incisions are made through numerous tissues, the peritoneum (frequently the seat of pathological processes) itself being freely divided. Such incisions in a state of health would be almost certainly fatal. It is true that the peritoneum of a hernial sac is placed under special conditions, but this fact does not remove the striking difference between the two operations to which I draw attention.

It may be said compendiously that there are two classes of cases of strangulated hernia which require operative relief. In one the extra-peritoneal operation offers the greatest prospect of success; in the other it is necessary to open the sac. In the second class may be placed, 1, cases of gangrene, and, 2, cases that cannot be returned after the extra-peritoneal incision. All other cases may be placed under the first category. It is rare in Surgery to meet with so clear and unmistakable a rule of practice. In every case of strangulated hernia, except where gangrene is present, the Surgeon should first adopt the simplest method of relaxing the fibrous structures which strangle the protrusion, and apply the gentlest possible taxis. In the few cases in which this proceeding fails, a second stricture having been sought for (especially in inguinal hernia), but not found, the sac may be opened in the usual way.

My experience coincides with that of numerous observers to the effect that the presence of gangrenous bowel may be very certainly diagnosed. When inflammation reaches the coverings of the sac, as indicated by redness of the skin, infiltration (œdema) of the subcutaneous tissue, and loss of distinct definition of the tumour, with complete cessation of pain, the bowel is already sphacelated. Constitutional symptoms lend confirmation. Flickering pulse, physical and mental prostration, and the other phenomena of collapse are present.

Mrs. J., aged 60, had constipation five days, and vomiting, which had been stercoraceous for several days. Unfortunately, the hernia was not discovered until too late. At the request of the Medical attendant I saw the case. I found in the right groin a flattened, hard, red swelling, extending from the pubes to the ilium, and one inch above and two inches below Poupart's ligament. The collapse was marked. Incisions disclosed black shapeless bowel. There were no fæces in the sac, but a copious flow followed division of the margin of Gimbernat's ligament. I gave a most unfavourable prognosis; she sank next day.

I would emphatically observe here that if there be a condition of the bowel which, beyond all others, is irreparably injured by exposure and handling, it is where inflammation is far advanced and gangrene is imminent, without being actually present.

In irreducible hernia there is now no difference of opinion as to the impropriety of opening the sac. In these cases strangulation occurs not from constriction of the neck of the sac, but from the protrusion of additional bowel. Opening the sac in a large irreducible hernia is one of the most fatal of Surgical proceedings, and the more direct the communication with the abdomen the greater the fatality, as in cases of irreducible umbilical hernia. Here to practise the simplest means of securing the return of the recent protrusion should be our highest aim.

In cases which are reducible prior to strangulation it is difficult to conceive that strangulation can occur in a certain number of hours from changes in the neck or contents of the sac. To conceive this we are required to believe that in an inflammation of a few hours' duration, developed under circumstances antagonistic to formative results, adhesions are formed so firmly as to be incapable of rupture on the application of the taxis subsequently to the relaxation of the firmer extra-peritoneal structures. It is a significant fact (I do not claim for it more than it is worth) that strangulation never occurs in those rarer forms of hernia which pass through openings, devoid of fibrous margins, although such herniæ have sacs and the sacs have necks. Practically we find that cases (perfectly reducible prior to strangulation) in which reduction cannot be effected after the firmer structures cease to constrict are remarkably rare. The following cases show that after many days of strangulation genuine adhesions do not form:—Mrs. F., aged 38, brought into Queen's Hospital five days after occurrence of strangulation, (and eight after parturition). Sac distended with dark fluid, and bowel claret coloured, but no adhesions or gangrene. Recovered rapidly after division of stricture. I was requested by a practitioner in the country to see Mrs. C., with similar phenomena and result. Another practitioner in the country called me to see M. H. with strangulated inguinal hernia of six days' duration. The bowel was sticky from inflammatory products, but no real adhesions were present. The patient died. These cases occurred before I performed the operation to be described. I believe, from cases in which I have myself operated, that in many instances where irreducibility continues after division of the less yielding tissues, it is the result of irreducibility of a small portion of the contents which has not been observed, but has existed before strangulation. Fresh protrusion, a noticeable tumour, and strangulation occur together.

When cases of strangulated (reducible) hernia occur which actually require the extra-peritoneal to be converted into the peritoneal operation, one, two, or three conditions will be found—constriction of the neck of the sac, adhesions within the sac, or increased size of the contents of the sac. Each condition is produced by processes occurring subsequently to strangulation.

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I have so far spoken of the constricting agency as lying either in the non-distensible structures which surround the several outlets at which herniæ occur, or in the neck of the sac itself. The crural sheath does not constrict in femoral hernia, or the fascia transversalis (except at the inner ring as a special structure) in inguinal hernia; the fascia transversalis is never the seat of strangulation in umbilical hernia; the subperitoneal fatty fascia is never a constricting agent in any variety of hernia. All these tissues are, of course, compressed into a small space within the several fibrous outlets, and, after death, such compressed tissues present considerable rigidity; during life, however, they are not themselves compressing agents. Why, then, should these tissues be divided if the really compressing structures lie externally to them?

It is the object of this paper to show that all that is necessary in practice is to relieve the tension of Gimbernat's ligament in femoral hernia, of the conjoined tendon or fibrous apertures in inguinal hernia, and of the linea alba in umbilical and the more common forms of ventral hernia. As a rule, these structures can be reached and relaxed, the cutaneous tissues only being divided prior to the use of the hernia knife.

The great excellence of Mr. Gay's, contrasted with the previous extra-peritoneal, operation consisted in this:—The incision was much more limited, and was made at a distance from the tumour. In Mr. Gay's operation, however, the subperitoneal tissue was reached both in the operations for femoral and for the other varieties of hernia; it was, nevertheless, an immense stride in the progress of hernial Surgery.

I have now frequently in cases of strangulated hernia, especially in femoral, the variety which most commonly requires operative relief, performed, with strikingly satisfactory results (especially in the extreme shortness of the convalescence), an operation of which the following are the chief characters, and which, since it aims at keeping as far as possible from the peritoneal structures, I would suggest might be termed the pre-taxoid operation. A short incision is made through the skin and superficial fasciæ near the neck of the tumour, and sufficiently large to admit the end of the finger. The superficial fasciæ are divided (not necessarily completely) to an extent which will enable the finger nail to detect the interstice or boundary line between the firm, immovable, unyielding apertural margin and the more moveable and yielding tunics of the hernia. For example, in femoral hernia it is not necessary to cut through every flake of connective tissue down to Gimbernat's ligament. It is enough if the finger nail discovers with ease and certainty the margin of that structure. As the hernia knife (blunt pointed, but cutting to the point) is insinuated along the finger nail, close to the firm constricting margin, it may advantageously carry before it a little connective tissue; thus all tissues are divided to the least possible extent, and the knife is much less liable to perforate the peritoneum. The practical rule, then, in all cases of hernia is to divide the skin and just enough of the subcutaneous connective tissue to permit the tense margin to be felt which it is proposed to relax. Anatomical knowledge is applied here not to determine how much tissue shall be divided—that is best decided by the touch—but to determine the precise direction in which and the precise point to which the finger nail is to be carried. I regard it as an important feature of the pre-taxoid operation that a lamina of tissue (crural sheath, fascia transversalis, etc.) shall, if possible, come between the peritoneal structures and the hernia knife. The herniatome is next used in the most sparing manner, not only in the very limited application of the edge, but, which is even more important, in the limited introduction of the point, for the peritoneal structures are stretched thin and closely applied to the abdominal aspect of the apertural structures. In few cases should the herniatome pass beyond the finger nail, and in umbilical hernia not at all. Incision of the tense margin is followed by pressure with the nail and tip of the finger in the direction in which the incision was made. Pressure must on no account be made towards the abdominal cavity; neither fingers, directors, nor knives should be carried in this direction. If the finger be passed into the abdomen before the margin is relaxed there is no strangulation, and no operation should have been performed; if strangulation be present, the introduction of the finger after the limited use of the herniatome is more likely to injure, and seriously injure, the bowel and peritoneum than to effect any useful dilatation. Gentle and momentary application of the taxis to the unwounded coverings completes the operation.

It is not inopportune to remark here parenthetically that certain points in the anatomy of hernia, even at the present time, give rise to great difference of opinion. These differences of opinion disclose on both sides the adhesion to a school of anatomy which is fast becoming antiquated, if not obsolete. The philosophic teachings of Reichert—in the main accepted by our most reputed histologists—applied, as they assuredly ought to be, to Surgical anatomy, show most clearly that, say in femoral hernia, there are, as separate entities, no ligaments, no sheaths, no fasciæ, no tendons, but that there is one single indivisible mass of connective tissue, firm here and loose there, having one disposition here and another there, and being directly continuous with the skin in one direction and with the bone or an epithelial surface in another. With these firmer and looser tissues, their forms and localities, it behoves the practical Surgeon to make himself—there is only one way to do it—minutely familiar. It is perfectly idle to dispute whether the femoral sheath is a prolongation of the transversalis and iliac fasciæ, on the one hand, or of the fascia lata on the other, or whether the so-called saphenous opening does or does not exist, seeing that the femoral sheath, the fasciæ lata, the cribriform, iliac, and transversalis fasciæ, Poupart's and Gimbernat's ligaments, and the aponeurosis of the external oblique are all one tissue—a tissue without attachments, without junctions, without lines of demarcation.

There is one fact in modern histological anatomy of immense importance in relation to Surgical pathology. A basement membrane has no existence. The epithelium of surfaces is placed immediately on connective tissue, which is very dense underneath the epithelium, but becomes gradually less dense as it passes deeper. Now, in inflammation of all surface membranes, it is this less dense connective tissue which is the seat of the greatest pathological activity. Erysipelas, bronchitis, pleurisy, and peritonitis are illustrations of this remark. It is one of the principal objects I have in view in the pre-taxis operation to avoid injury to that inflammable portion of the peritoneum which is called subperitoneal fatty fascia.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

PARALYSIS OF ALL PARTS BELOW THE NECK—DEATH—AUTOPSY—MALIGNANT DISEASE OF CERVICAL VERTEBRÆ.

(Under the care of Dr. BLACK.)

This case is of great interest in several ways. In the first place, the diagnosis of cancer was difficult, as there was no prominent symptom beyond the paralysis. It is true that there were pains in the shoulders; but these were not definite enough to lead to any certain conclusion, and, indeed, were, before he came to the Hospital, taken for rheumatism. It is only when pain follows the course of some definite spinal nerves that it can be of much use in helping us to locate disease in the spine. We have recently seen several cases of paraplegia in which the cause of the paralysis was cancer of the spine, and yet was not diagnosed during life. The sudden onset of paralysis is not likely at first thought to countenance the diagnosis of cancer; but we must remember that, although it may have been growing in the bones of the spine a long time, it may, as in Dr. Black's case, suddenly invade a part of the cord, the anterior columns, where are collected in a small space the motor fibres of the muscles of the four limbs and of the trunk.

It is said in the report of the case that the effect on the cord—*i.e.*, on the anterior or motor columns—was apparently the result of pressure only. It is certainly singular that there should be so much paralysis, and yet so little apparent damage to the cord. But this is very commonly so. In a case lately in Guy's Hospital, a patient had paralysis (of motion only) in both legs. He died; and at the autopsy, although at one point there was found cancer of the bones of the spine, yet the cord looked healthy, and nothing morbid was found in it by recent microscopical examination. In all such cases, however, it is necessary that a careful examination should be made on Lockhart Clarke's method after the cord has been hardened in chromic acid. This method would clear up many obscurities. Indeed, we may say without exaggeration that Lockhart Clarke's researches open out quite a new field—not in the physiology of the Nervous System only, but in its pathology too.

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History.—David B., 35, had been out of health for about ten months, suffering from pains, supposed to be rheumatic, in the neck and shoulders. These were at times greatly relieved by Turkish baths. About three months before his death his figure began to alter, the neck becoming shorter and thicker, so that he could no longer button his shirt-collar; but he was able to continue at his work as a clerk in Pickford's warehouse up to one month before his death, complaining, however, at times of difficulty in guiding his pen. On the evening of Tuesday, February 23, he had a Turkish bath, but the pains, which had become very severe, were aggravated rather than relieved by it, and he passed a very bad night. The following morning, February 24, whilst at breakfast he suddenly found himself unable to raise his cup to his mouth with his right hand, and on attempting to walk into his bedroom he found that he had lost almost all power in the left leg. He was then brought to the Hospital, and the loss of power soon became complete and universal in the limbs and trunk; but the sensibility remained perfect up to within a few hours of his death, if not to the very last. He died somewhat suddenly, after an agony of about two hours, of dyspnœa.

Post-mortem.—Body sparely nourished; still slightly warm; posteriorly somewhat livid. Rigor mortis present in muscles of lower jaw; the limbs flaccid. Head—The only appearances noticed were that the scalp was slightly adherent; the vessels of the pia-mater somewhat minutely injected, and a small bony mass in the falx cerebri. The ventricles contained about the normal quantity of fluid. Spinal cord and its membranes were apparently everywhere healthy, except opposite the second and third cervical vertebræ, and the corresponding interstitial cartilages. Springing from the bodies of those vertebræ with which it is intimately connected, and which are partially destroyed by it, the cartilages having suffered in a less degree, is a tumour the size of a walnut, by which the cord is greatly compressed, and softened apparently throughout. The tumour was also connected closely with the outer aspect of the theca, but had not penetrated to its inner surface, the spinal arachnoid being healthy, and the effect on the cord due, seemingly, to pressure alone. Under the microscope the tumour was found to consist of nucleated cells of irregular shapes, presenting the usual characters of so-called malignant growths. It contained no oil-granules or globules. No secondary deposits were detected in any of the neighbouring lymphatic glands. Heart—Twelve and a-half ounces; healthy. Pericardium contains half-an ounce of clear fluid. Pleuræ—Left, no adhesions; right, some slight adhesions at apex and posteriorly; no tubercle in either. Spleen—Nine and a-half ounces; soft and pulpy; greatly congested. Liver—Congested, but healthy. Gall bladder contains some yellow bile. Supra-renal capsules seemingly natural. Kidneys—Left, seven ounces; right, six and a-half ounces. Capsules retract slightly when divided; surface smooth, extremely congested, and mottled with numerous irregular, pale, white patches, the largest the size of a split pea. On section, extremely congested throughout. The bases of the pyramids slightly frayed out. On the surface of the section white patches similar to those on the exterior, with some of which they are continuous. Under the microscope only extreme congestion, except in the white patches, which appear anæmic, with a slightly granular condition of contents of tubules. Bladder contains a little urine; inner surface congested. Alimentary canal congested throughout, but in other respects normal. The rectum excessively distended with healthy-looking fæcal matter.

THE LONDON HOSPITAL.

SEQUEL TO A CASE OF ANEURISM OF THE AORTA, IN WHICH THE DIAGNOSIS WAS AIDED BY THE LARYNGOSCOPE.

(Under the care of Dr. HUGHLINGS JACKSON.)

[Communicated by Dr. POWELL, late Resident Medical Officer.]

By referring to the Reports of Hospital Practice of this Journal for January 9, a case will be found in which the presence of an aortic aneurism was diagnosed with the laryngoscope at a time when the physical (thoracic) signs gave no evidence of such a condition. The symptoms were "a shrill and feeble voice," and "a crowing noise in the throat on exertion." The patient suffered from "a burning pain in the chest," and "he had several times spat up a few teaspoonfuls of blood."

With the laryngoscope, which Dr. Morell Mackenzie employed at the request of Dr. Hughlings Jackson, who from the general symptoms had diagnosed aneurism of the arch of the aorta, "on phonation, the left vocal cord was observed to remain fixed, whilst the right advanced well to the median line." (For further particulars see Report.) Dr. Mackenzie therefore confirmed the diagnosis of the existence of an aortic aneurism pressing on the recurrent nerve. The patient left the Hospital at the beginning of the year, and died March 3 from exhaustion, after a painful paroxysm of angina pectoris, of which disease he latterly had repeated attacks. The laryngoscopic diagnosis was fully confirmed by the autopsy, of which the following are the particulars:—

The post-mortem examination was made twelve hours after death, and having to be conducted at the patient's house, was confined to the thoracic cavity. A tumour being evident in the region of the arch of the aorta, this, together with the larynx, heart, etc., was removed for more careful examination. The parts were subsequently dissected, and the following notes made:—On opening the right auricle, a pale mass of fibrine was found occupying the greater portion of its cavity, adhering to the appendix, and extending into the right ventricle, to the apex of which it was attached with considerable tenacity. The portion contained in the auricle was covered on the surface by some loose, dark coagula, while that in the ventricle was throughout firm and decolorised. The tricuspid valve was studded with small atheromatous patches. Semi-lunar valves and pulmonary artery healthy in appearance. Both divisions of the mitral valve were thickened, and presented patches of atheroma, best marked at the attached border of the valve. The aortic semi-lunar valves were also thickened. The ascending portion of the aorta was dilated to about twice its normal calibre, and presented evidences of extensive disease. It was much thickened, had lost its natural elasticity, and its surface was roughened by patches of atheroma, which in several places had undergone calcareous degeneration. At the upper part of the arch of the aorta was an aneurismal sac about the size of an unstripped walnut, and containing laminated fibrine. Its positions and relations are as follows:—It was situated partly on the anterior surface of the trachea, but its principal bulk lay to the left side of that tube. The anterior, upper, and posterior portions of the transverse part of the arch of the aorta were involved in the tumour. The innominate artery was pushed forwards and compressed by the tumour, which extended half an inch to the right of that vessel, but did not involve it, though the margin of the sac was only distant a quarter of an inch from its origin. The left carotid and left subclavian were neither involved nor compressed, and bounded the sac in their usual position. The left recurrent nerve was traced from its origin from the vagus round the arch of the aorta as far as the sac of the aneurism, with which it became incorporated, and could not be followed further. The sac of the aneurism encroached upon the left side of the trachea and anterior surface of the œsophagus. On slitting up the trachea along its posterior part, a projection an inch and a-half long by three-quarters broad was evident on the left side of that tube, just above its bifurcation, and extending to within a quarter of an inch of the opposite side. The mucous membrane covering it was dark and congested, and there were appearances of commencing ulceration. The cartilaginous ring in this situation had also undergone partial absorption. The œsophagus was opened, but presented nothing remarkable. The aneurism was of the false variety.

MIDDLESEX HOSPITAL.

DISEASE OF THE SUPRA-RENAL CAPSULES—DISCOLORATION OF THE SKIN—PELVIC ABSCESS.

(Under the care of Dr. GREENHOW.)

W. B., aged 24, married, engineer's labourer, admitted April 12, 1864. A slight man, under middle height, naturally of rather dark complexion, and with black hair. Stated that, with the exception of an attack of fever eight years ago, he had enjoyed good health until between eight and nine months previous to his admission, when an abscess formed in the left hypochondriac region. The abscess did not prevent his following his usual employment. In October last, a month or six weeks after the healing of the abscess, he had been seized with severe pain in the left hip, shooting downwards in the course of the sciatic nerve towards the knee. This pain had never since left him, though it had varied in intensity from time to time. Had been gradually getting weaker during these

months, and had very rapidly declined in strength during the last ten days. Had for some weeks had nausea and occasional retching, with, for the last few days, vomiting of food. Appetite much impaired during the last fortnight. Bowels, habitually costive, had become more so during his illness. Had suffered much from flatulence and gastralgia. Had lately suffered from attacks of breathlessness and faintness on exertion, and actually fainted while under examination in the waiting-room. These symptoms led Dr. Greenhow to suspect the case to be one of Addison's disease before he had observed any discoloration of skin; and the patient's wife and mother, on being questioned, said that they had observed his complexion becoming darker about three months ago. Capt. hst. potass. citrat. effervesc.; amm. cū. ferri, gr. v. ter die; port wine, 6 oz.

April 13.—Skin cool; tongue flabby, moist, coated on dorsum with a yellow fur; urine somewhat dark coloured, highly acid, copious, free from albumen, sp. gr. 1022; pulse from 94 to 100, variable, extremely feeble, small and compressible; heart's impulse feeble, and sounds exceedingly faint; resonance normal on percussion over both sides of chest; breathing sonorous, with very slight rhonchus; slight cough with scanty, tenacious, nearly transparent expectoration. Patient could scarcely be raised up in bed on account of tendency to faintness. General hue of skin a dusky brown, face somewhat darker, closely resembling that of a person of colour. Sides and back of neck, from hair downwards to shoulders, darker than face. Hands much darker than arms, and all the knuckles sensibly darker than surrounding surface, as were likewise several spots where the skin had formerly been abraded. Here and there, on the neck, were one or two well defined darker specks resembling moles. The skin over the spine, for about nine inches downwards from the eighth dorsal vertebra, was much darker than the rest of the back. Over the left hip, where a blister had been applied four months before, was an oblong surface, nearly four inches by five, much darker than any other part of the body, and on it were several spots, where apparently there had been superficial ulceration, which were almost as black as the skin of a negro. Nipples and areola very dark, almost black. Axillæ scarcely appreciably darker than the rest of surface, but groins sensibly so. Penis extremely dark. Thighs and legs less dark than body. The lips had a dark, almost black, stripe of varying breadth extending along their whole length. The buccal mucous membrane, with the exception of a few intervening paler spots, was also of a dark, almost black, colour, and there were several well-defined dark patches on the gums of the lower jaw. The conjunctivæ were clear and perfectly white. The skin was everywhere soft and free from eruption. Body somewhat wasted, but not emaciated. Pergat. Pil. coloc. c. hyosc., gr. x., horâ somni.

14th.—Has had much sickness during the night, vomiting almost everything he has taken. Bowels have acted once loosely. Pulse 108, exceedingly small and feeble. Is very languid, and feels more faint to-day than he has hitherto done. Complains much of pain in the chest, which is worst after food and before sickness. Urine copious, high coloured, sp. gr. 1019, no albumen. Hst. acid nit. mur., ʒj. ter die; port wine, ʒviii.; brandy, ʒj.

15th.—Much the same as yesterday with regard to pain in chest and vomiting of food, but is evidently weaker. Pain in hip persistent. Pt.

16th.—Has slept fairly. No pain in chest at present, but constant vomiting after taking food. Pulse 120, very small and feeble. Constant feeling of faintness. Surface cold and pale. Speaks slowly, as if unwilling to be disturbed. 8 p.m.—Looks anxious and exhausted. Pulse 144, almost imperceptible. Intellect unimpaired. Enema c. suc. bov., ʒiij.; spt. vin. gal., ʒij., statim et 4tis horis.

17th.—Vomiting still continues, faintness most intense, pulse scarcely perceptible, and heart sounds only audible on very close examination. Extremities cold and sight dim. He sank and died about 1 p.m., his intellect remaining unimpaired to the last.

Post-mortem Examination Twenty-six Hours after Death.—Rigor mortis well pronounced. Body spare, but not emaciated. General hue of skin dusky, but so much paler than it had been during life that if then seen for the first time it might have been regarded as the natural colour of a rather dark person. Face and neck were somewhat darker than the greater part of the rest of body. Thighs and legs apparently of normal colour. Skin of axillæ and of hip, where the blister had been applied, decidedly darker than the surrounding surface. Penis and scrotum much darker than any other part of the body. Dark stains on lips and on buccal mucous membrane remained almost as during life. Muscles of normal red colour. Heart had much fat on its outer surface; muscular tissue somewhat pale; valves normal. Right auricle and ventricle were nearly filled with a large, firm, yellow clot, entangled in the cords of the tricuspid valve, and sending a process into the appendix auriculæ. Both lungs firmly adherent to ribs; lung tissue here and there slightly congested, but free from all traces of tubercle. Many of the mesenteric glands were enlarged, some being of the size of beans. Their surfaces were pale and yellow, and on section they appeared of a yellow colour, and had a dry, somewhat cheesy, texture. Microscopical examination showed these glands to be infiltrated with a finely granular substance, in which were numerous granular cells and nuclei, and many cells containing oil-globules. Vessels of small intestine much congested; Peyer's patches enlarged, prominent, of yellowish white colour, and remarkably opaque; the solitary glands scattered throughout the ileum also enlarged; no appearance of ulceration. Supra-renal capsules were both closely invested with very dense connective tissue, containing a good deal of fat. The left capsule was one-third larger than the right, its weight was six drachms, and it measured longitudinally two inches and three-quarters, and transversely one inch and a-quarter; it was of very firm consistence, and on section no distinction was visible between cortex and medulla, the whole organ being converted into a mass of firm, yellowish-white tissue, in parts semi-transparent. Scattered through this mass were numerous opaque yellow deposits, varying in size from a hemp-seed to a pea, of cheesy consistence, mixed with gritty matter. On microscopical examination these cheesy deposits were found to consist of opaque, amorphous granular material, mixed with granular shrunken cells and nuclei, and some oily matter. The intervening portions, in addition to similar granular material, consisted of fibrous tissue. The right capsule weighed four drachms, and measured longitudinally rather less than two inches, and vertically one and a-half inches. In structure, it closely resembled the left capsule; but one of the cheesy masses was of the size of a small bean. On laying open the pelvic fascia at upper edge of true pelvis on left side, about half an ounce of thick creamy-looking pus escaped: the abscess communicated with carious bone at the left sacro-iliac synchondrosis. Blood much thicker and darker than usual, presenting under the microscope a great excess of red corpuscles.

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Medical Times and Gazette.

SATURDAY, JUNE 11.

OUT-PATIENTS.

Much has been written and many strong statements have been made respecting the out-patient departments of our London Hospitals. Even now very opposite views are taken as to the amount of good they do, and as to their effect on the Profession at large. One writer in particular has dilated on the improper objects whom they subsidise with charitable funds, and has formed an estimate, which we cannot but think exaggerated, of the proportion in which recipients of gratuitous relief are fully competent to pay for advice from private Practitioners. But though there be overstatements, the evil

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is a real one. It is worth while to look at the subject in its general bearings. If by such a course the opinion of the Profession can be fairly elicited, a great step in advance will have been made, and the way cleared for an organised effort to suppress a serious abuse of charitable foundations.

It is obvious in the onset that the question is not so simple and straightforward as it seems. Many causes, some of them private and difficult to investigate, drive persons bearing an outward show of comfort and competence to the Hospital and Dispensary. A few, indeed, may go from downright meanness, deliberately intending to shirk their Doctors' bills. But this is not a course very consonant with English character, and in our experience it only contributes a small percentage to the unqualified recipients of Medical charity. It is probable that a somewhat larger proportion go with the sophistical argument on their lips, which has damaged so many eleemosynary institutions—"Somebody," they say, "must obtain the benefit of the charity, and why not I?" If this is followed by vague lamentations on the uncertainty of trade, or an increasing family, and on the dearness of provisions, many an otherwise independent man will have reasoned himself into a frame of mind which will submit to any tests, and make the most damaging professions to qualify for the offered succour.

At the opposite end of the scale, but, in our opinion, fully as unfit for Hospital relief, is the downright pauper. Of course, we do not mean such as, although paupers, suffer from acute critical diseases requiring careful nursing and treatment, nor the victims of accident, nor such as need capital operations. To them, even if paupers, the Hospital should be open, both as out patients and as tenants of the wards; only let it be observed that what the parish pays for their sustenance in health it should pay to the Hospital for each such inmate. This being in some cases the present arrangment, we need not here dilate upon it.

Between the two extremes, intermediate to the thriving artizan or shopkeeper and to the recipient of parochial relief lies the class for which it is difficult, but expedient, to legislate. The diagnosis of unfit cases is not to be made by dress alone. We have heard it well remarked that money spent in dress, often to keep up a necessary appearance in professions, is money gone from its owner, and compensated by the starving of the stomach or the neglect of advancing sickness. Tutors, governesses, clerks, milliners—nay, even professional men and ladies of good birth, often cover the most abject poverty under an exterior of comfort. In one institution we have ourselves seen a clergyman—in another, an officer of the army receive charitable aid which could not have been more judiciously bestowed. Household servants, moreover, are often poorer than their outward show denotes; for the illness that extracts their little savings prevents them from earning more by their proper calling. "I had saved £80 in service," said one of this class to the writer not long ago, "but in a year's illness it has all been spent, principally in Doctors' bills; and now, unless I recover, I see nothing before me but the workhouse." And a similar but more painful case is worth citation. A young person of good appearance and education came to a London Hospital, saying she had been earning 26s. per week by her trade, and that she was engaged in marriage to a young man also making a good weekly sum as an engineer. Very honourably she had declined to fulfil her engagement to him on the first symptoms of illness. At the end of a year's lingering her savings were gone, her friends' help exhausted. She could just keep about, but could do no work, and found herself without any refuge but the workhouse. It was almost a relief when tubercular peritonitis complicating the pulmonary affection enabled her admission to one of our oldest and noblest general Hospitals, where, surrounded by kindness and commiseration, she slowly died. Here we believe charitable funds to have been most legitimately applied in what, at the first blush, was actually considered to be an improper case for out-patient treatment, on the ground of competence. Inquiries as to circumstances in such cases not only often elicit sad tales, the more worthy of pity as being less obtrusive, but do an indirect good by letting it be known that glaring instances of unfitness will not fail to be detected. Indeed, we cannot help thinking that the very recognition of the evil and its frequent investigation in the presence of the assembled patients is one of the best means of preventing its occurrence. If the Medical officer—or, should this seem an invidious office for him, the secretary or clerk—publicly examine into suspicious cases, the very chance of the inquiry will frighten away more improper persons than it would itself detect, just as the occasional and unexpected inspection of excisable articles is found sufficient to restrain smuggling within very moderate limits. Moreover, when such an idea is once in the minds of the patients, they form an efficient detective force upon each other, and here, just as elsewhere, many a corrupt practice leaks out through the collision of rival cupidity.

We have reason to believe an impression exists in the minds of some who are well qualified to judge, that in the larger and richer endowed Hospitals a stipendiary officer might with advantage be appointed, whose duty it should be, like the relieving officer of the parish, to trace out the several cases to their homes, and ascertain their fitness for Hospital relief from personal knowledge. The great majority of Hospital out-patients notoriously come from the immediate neighbourhood of the institution itself, so that an active, intelligent man might, without any extreme difficulty, soon form a fair estimate of the genuineness of each case of distress which offered itself for assistance. He would also perform another function which, unfortunately, there is good reason to believe is no less necessary, namely, that of preventing the Hospital from becoming a mere offshoot of the Workhouse Infirmary. It cannot be denied that in the districts where large endowed Hospitals are situated, a deliberate attempt is often made to "plant"—if we may use a familiar term—all the sick paupers possible on the Hospital; and if the evil do not exactly take this particular form, it will be obvious, from a distressing case in the journals of the past month, that so many delays and difficulties are placed in the way of admission into the Workhouse, as may easily convert curable into incurable disease, and relieve the Union of one sick pauper, either by admission as an urgent case into the wards, or by the summary process of letting him die in the streets.

Hitherto we have considered two extremes, paupers and persons in good circumstances. There remain some other species of patients. The chief of these are artizans, whose time is their money, and who, in consequence, differ somewhat in their relations towards Hospitals; secondly, there is the class who, though unable to pay the large fees required by Practitioners in vogue, might, and would, pay a stated reasonable sum for first-class Medical attendance; lastly, we can hardly conclude this subject without noticing the modifications introduced into the Hospital system of London, and even of England, by the great development which special Hospitals have of late years assumed. To these topics we hope to revert ere long.

ARMY ADMINISTRATION.

Much service has been rendered to the country at large by the recent comparisons which have been instituted in the House of Commons between the expense of the French and English armies. It is very well known that the former country maintains an enormous standing army. Comparisons of this kind drag startling results out of dark official pigeon-holes and dreary Blue Books into a prominent position. No doubt the expenses entailed by a standing army in this country must be large, must inevitably exceed those of Continental nations, so long as every material of life is dearer here, men scarcer, work more abundant, and all salaries far higher. It may be allowed, as beyond all controversy, that neither officers nor men are overpaid, and yet we find every item of expense doubled, trebled, or quadrupled in the English as compared with the French

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army. The only exception appears to be that of the Army Medical Department, the cost of which does not exceed that of the French army. If, then, the men who do the fighting and the men who treat and cure their wounds and diseases do not consume the money, where does it go? We think that we can put our finger upon one source. We will leave out the important items of expenditure on the manufacturers and contractors who arm, clothe, and supply the wants of the soldier, and turn to the subject of army administration. If a man of business habits—a member of Parliament like Mr. Stansfeld, for example—could have the whole machinery employed—its cranks, pulleys, checks, and strings—laid open before him, he could put his finger upon many a loose screw and many a crank, which was not only cumbrous, but worse than useless by the impeding incubus it exerted on other parts of the machinery. These are the things which put the screw on John Bull's purse with so terrible a pressure, that it yields under its force, and exudes taxes of all kinds, J. B.'s features meanwhile indicating the pain of the operation. The War Office and Horse Guards cut down the Army Medical Department. They yield to the wishes of the Government and the combatant officer, apply a slight pressure on Whitehall-yard, and the thing is done! Money is saved at the expense of the Medical officer and the sick soldier. The War Office, having expended a considerable sum in stationery for the amusement of some clerks' leisure hours, boasts aloud, "See what we've saved!" When we regard the enormous amount of official foolscap that is so necessary to our present very intricate and elaborate system of administration, we are tempted to wonder how the old Roman legions could have got on without it, and to picture what would be an old Roman general's mute astonishment at our modern ways. We gather the following from Mr. O'Reilly's speech in the House of Commons a short time ago:—In administration, our head department consisted of a secretary of state and commander-in-chief, the expense being £9442; while the French managed with one minister at a salary of £5200. The French officials—directeurs, chefs et commis—equivalent to our officials, from secretaries to clerks inclusive, were,—for the double-sized army only 501, at salaries amounting to £58,964, against 627 persons in our departments with salaries of £177,207. The total cost of the English administration, deducting the Quartermaster-General's department, was £1 7s. per man; while the French total, leaving out the Depôt de la Guerre, was about 4s. 6d. per man. Mr. O'Reilly said that "he thought if the Government, another year, did not diminish the cost of army administration, the House ought to enforce it upon them;" and we think so too. By the way, we wonder whether the charge of £973 for forage for the Commander-in-Chief is included in the cost of administration. There is very little doubt that the time is coming when the men as well as the officers of our army must be better paid, if we desire to maintain a thoroughly efficient force, and we imagine the nation will desire that the money voted shall really flow to the army, and as little as possible stagnate in, and adhere to, the desks of officials.

THE WEEK.

DISEASED MEAT FOR THE NAVY.

An action was brought in the Court of Queen's Bench on the 7th inst., which proves that our sailors are at least as much exposed to the dangers arising from eating diseased meat—whatever they may be—as the rest of Her Majesty's lieges. The action was brought against two persons, named England and Curtis, who are meat contractors for Deptford Dockyard. The plaintiff Davies was foreman to Curtis, and was employed by him in cutting up the carcases of cattle alleged to be diseased. One ground of the action was that the plaintiff had been infected by the disease of the cattle. The Court gave judgment for the plaintiff on the supposition that the defendants were aware of the diseased condition of the animals.

THE FRENCH POISONING CASE.

The Court of Cassation has rejected the appeal on behalf of La Pommerais against the judgment of the Assize Court of Paris. The Paris correspondent of the *Times* writes:—

"It was only after much persuasion that the convict consented to the appeal; he was utterly weary of life, he said, and he had rather meet death at once than undergo the agony of suspense and the heart-sickness of hope deferred, of hope the faintest possible. There now remains but the mercy of the Sovereign when he comes to sign the warrant for execution; and for the exercise of mercy it is feared there are but slight grounds. The crowd that thronged the Palais de Justice was on this occasion as numerous as during the trial. Many imagined they were to see once more the unfortunate man who has acquired so infamous a notoriety, but they were disappointed. It was forgotten that the convict does not appear before the Court of Cassation. This Court, in its appellate jurisdiction, only examines the competency of the appeal. Its duty is not to examine the truth or falsity of the charge on which the criminal is condemned; it inquires merely as to whether all the legal forms have been scrupulously observed in the lower Court. It is divided into three chambers, and the third, the Chamber de Cassation Criminelle, is that which decides in criminal cases. In case of informality, the Court would pronounce no opinion as to the guilt or innocence of La Pommerais; it would only set aside the previous judgment, and send him to a provincial Court of Assize to be tried by other judges. The exceptions taken to the decision of the lower Court were set forth by the counsel for the defence, and developed at length in the report read by M. de Gaujal, counsellor at the Court of Cassation.

"M. de Bozerian supported the appeal, and in a speech of much ability enumerated all the reasons which existed for a new trial. These reasons seemed, however, more ingenious than real.

"M. Dupin, Procureur-General, replied at some length and with much force. In his requisition, which was a fine specimen of legal reasoning, he recalled some of the most celebrated cases of poisoning and the fate reserved for poisoners in ancient and modern times, from Locurta to the Marquise de Brinvilliers and Madame Laffarge. M. Dupin concluded by calling on the Court to reject the appeal and confirm the judgment of the Court below, there being no grounds whatever for disturbing it.

"At two o'clock the judges retired to their chamber, and remained only half an hour in deliberation. When they resumed their seats it was easy to see that, so far as the Court of Cassation was concerned, all hope was over. Amid the deepest silence the decision of the judges was read; it was, that the procedure in the lower Court was regular; that the text of the law had not been infringed; and that the appeal on behalf of Le Pommerais was rejected. The crowds lingered for a while in the Salle des Pas Perdus, or conferred together in groups in the square as to the chance of a commutation of sentence, if not for the convict's own sake, for that of his father, his wife, and his infant child."

PARLIAMENTARY.

In the House of Lords on Friday, June 3, Lord Shaftesbury explained the objects of the bill he had introduced for the amendment of the present law regulating the mode of sweeping chimneys. The practice of employing young children in this occupation had of late years much increased in some places, in consequence of the difficulties of procuring convictions under the existing Act. All he wished to do was to introduce such amendments as should render it easier to put the law in force against those who persisted in employing children in this trade. To prove the necessity of some interference he read numerous extracts from recent evidence of the revolting cruelty the masters were forced to employ in training children to the work. All this suffering, he asserted, was totally unnecessary, as chimney-sweeping by the machine, when properly done, was in all respects efficient. The employment of children had been abolished in Edinburgh, Glasgow, Leicester, and other large places. In no place was it necessary, as the machine was adapted to flues of every kind of construction. Nor were the master sweeps, as a body, opposed to the prohibition of children's labour. They stated that they are frequently compelled to employ it by the prejudices of householders, often of the wealthier classes, who will not allow a machine to be used in their chimneys. Having further described the manner in which

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children are bought and sold for the trade, and reduced to a condition of slavery, he implored the House not to reject the bill, by which he had attempted to check a cruel practice unknown to any other civilised nation.

Lord Brougham expressed his hearty approval of the measure.

The House then went into committee on the bill, and agreed to the clauses, with some amendments.

In the House of Commons, on the same evening, a debate took place on the abuses of Greenwich Hospital. On the part of the Admiralty, Mr. Childers promised numerous reforms, both in the government and management of the Hospital, and in the mode of admission and the granting of out-pensions.

The subject of the preservation of Epping Forest for the use of the population of London was brought before the notice of the House by Mr. Torrens, who moved for the production of correspondence, but subsequently withdrew the motion.

On Monday, June 6, the attention of the House of Commons was called by Colonel Sykes to the position of the officers of the late Indian Company's army, but no special reference was made to the present deplorable condition of the Indian Medical Department.

On the vote of £17,306 to complete the sum necessary to defray the expenses of the Privy Council-office,

Mr. Augustus Smith asked for some explanation of an item of £10,000 charged for contingent expenses.

Mr. F. Peel stated that this sum was required to defray the expenditure of the Privy Council-office under the Public Health Act. £3000 was annually placed at the disposal of the Privy Council to pay Medical and other officers who were from time to time deputed to conduct inquiries and experiments; £2000 was for the National Vaccine Establishment; £2000 for vaccination inspection, and the remaining £3600 was a matter of account arising from the Medical Department of the Privy Council having been unaware of the rule that payments should only be made out of the votes for the current year.

Sir J. C. Jervoise called attention to the charge for expenses connected with the inspection of sheep to prevent the spread of disease, and maintained that the statements in the blue-book were calculated to create a panic among agriculturists. Every fifth animal, and by consequence every fifth mutton chop, was stated to be diseased, while there was not only death in the pot, but in the pail. The total loss by preventible diseases in cattle was estimated at £6,000,000 yearly. He wished to know who was to be held responsible for such statements, inasmuch as the Medical officer who had despatched eminent Veterinary Surgeons on commissions of inquiry, not only through this country, but abroad, disconnected himself in a note at the end of his report from the opinions put forward by them. The epidemic diseases were attributed in the blue-book to contagion originally of foreign origin, whereas the Medical officer attached to the Customs Department reported that not a single case of small-pox in sheep had entered this country.

Mr. Bruce said the Secretary to the Treasury had already explained from what source the cost of these inquiries was defrayed. The hon. member seemed not to deny the great ability and clearness of the reports, but apparently objected to the manner in which they were compiled. The subject of diseases in cattle was one upon which a great variety of opinions existed, and it was now receiving the attention of a select committee.

The vote was then agreed to.

The Government Annuities Bill passed through committee.

On Tuesday, June 7, the House of Lords went into committee on the Penal Servitude Acts Amendment Bill. A discussion took place on the clause requiring a convict liberated on ticket-of-leave to report himself once a month to the police. An amendment, moved by Lord Houghton, striking out the words "once a month," was negatived by a majority of 8.

In the House of Commons, on Wednesday, June 8, Mr. Lawson moved the second reading of the Intoxicating Liquors Bill. He assigned various reasons for bringing forward this measure, among which he included the vast number of petitions in its favour, signed by upwards of 300,000 persons, and he examined and replied to the objections urged against legislation upon this subject, especially the suggestion that it was impossible to make people sober by Act of Parliament, which, he remarked, had not been suffered to obstruct other attempts at social and moral reforms. He showed what the grievance of which the advocates of the measure complained really was, and that it was acknowledged by persons of all classes; and he appealed to irresistible evidence of the evils resulting from indulgence in intoxicating liquors. Having shown the grievance, he stated the remedy he proposed in his bill, which could not come in force except by the will of the people.

Captain Jervis moved to defer the second reading for three months. He observed that the speech of Mr. Lawson was no defence of the Bill, which put an arbitrary power into the hands of two-thirds of the ratepayers of a parish. He was acquainted with the habits of the working classes, and he believed that drunkenness had diminished throughout the country, and not by penal enactment, but by education.

Mr. Bright said every one must agree that the evil in question was a very grievous one, and that if any measure could be taken that would not violate the recognised principles upon which the House acted, some further help would be afforded to the efforts of those who were making great exertions in the cause of sobriety. The question then was as to the remedy. There were two modes; one, the improvement and instruction of the people; the other, special legislation. He looked to the first for a permanent remedy; but something might be done by special legislation. He disapproved, however, the machinery proposed by this Bill, which might excite a resistance to its honest and good object. But although he did not see his way to supporting this measure, he suggested a mode of control by the people in the cause of temperance through the municipal councils.

Mr. Roebuck opposed the bill as a mischievous and unjust measure. The House, by passing it, would, he said, abdicate its functions. It was mainly directed against the poor, and was, therefore, a cruel bill.

Mr. W. Martin and Mr. Scourfield likewise opposed the bill.

Sir G. Grey was decidedly of opinion that the remedy proposed by the bill would be an intolerable tyranny over minorities and those who had no voice in the matter. Sympathising with the object of Mr. Dawson, he hoped, after the opinions which had been expressed in the House, he would not persevere in the measure.

Further discussion followed, and, upon a division, the second reading of the bill was negatived by 292 to 35.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE XIX.—MARCH 15.

Anatomy of the Gibbons Continued.—The dental formula in the genus *Hylobates* is the same as in man and the other anthropoid apes, and in their principal features, such as the proportionate size of the incisors and pattern on the molars, the teeth repeat the characters previously assigned to these groups. The canines are very long and pointed, and in the lower jaw have a posterior projection or heel, close to the base of the crown. In the order of succession there is this notable difference from the Gorilla, Chimpanzee, and Orang,—the permanent canine, instead of being the last tooth in place, emerges either before or contemporaneously with the posterior molar. This might be considered to bring the gibbons nearer to the human type, if it were not a character found extensively among the lower groups of monkeys.

The myology of *Hylobates* may be considered under the same heads as in the case of the previously-described apes. 1. Those muscles which are not commonly found in man are, as before, the levator claviculæ and the dorso-epitrochlear; the scansorius is not very distinctly represented; but there is a muscle, as far as is known at present, not found in any other mammal, it occurs in both hand and foot, arising from the second metacarpal bone, and inserted by a long tendon into the radial or tibial side, as the case may be, of the ungual phalanx of the same digit; it might be called "abductor tertii internodii indicis." 2. The muscles commonly found in man, which are absent in Hylobates, are the extensor primi internodii pollicis and the peroneus tertius, neither of which appear to be found in any apes. 3. Muscles differing essen-

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tially in their origin. The biceps of the arm is a strong and large muscle; its short head has no connection with the coracoid process, but rises from the tendon of the pectoralis major. The flexor pollicis longus approximates in its mode of origin to the highest type, being mid-way between man and the chimpanzee; its tendon is distinct throughout its whole length, but the muscle is connected by fleshy fibres with the portion of the flexor profundus digitorum appropriated to the index finger. The soleus arises by a narrow tendon from the fibula alone. The flexor brevis pedis has only one head from the calcaneum, that furnishing the perforated tendon of the second digit, the remainder arises by three bundles from the tendon of the flexor longus. The dorsal interossei of the second space in the foot resemble those of the hand in their origin. 4. Muscles differing in their insertion. The supinator longus is inserted into the middle of the radius instead of its lower end. The extensor indicis gives tendons to the second, third, and fourth digits; the extensor minimi digiti only to the fifth. The great muscles which act as long flexors of the toes are very peculiar in their distribution; the flexor hallucis gives tendons to the first, second, third, and fourth digits, the flexor digitorum only to the fifth, and there is but a very slight connexion between them in the sole of the foot. There is no flexor accessorius. 5. Muscles which differ by subdivision. The extensor ossis metacarpi and the tibialis anticus have double tendons, with the usual insertion, but the division is scarcely carried into the muscle itself. The interossei of the hand are divided precisely as in all the preceding. On the whole, in the myology of its hand and foot, *Hylobates* may be said to depart further from man than either gorilla or chimpanzee, but less so than orang.

A laryngeal pouch at all similar to that found in the other anthropoid apes only exists in one species of *Hylobates*—the siamang (*H. syndactylus*). That this structure can have no relation to the production of the remarkable voice of that animal is proved by the fact that all the other species are equally loud howlers. According to Sandifort, it exists in the siamangs of both sexes, as a great globular bag attached to the front of the larynx, but it differs essentially from the previously described air sacs in not communicating with the ventricles of the larynx, but has an opening on each side higher up above the false vocal cords, so that it is in reality a development of the thyro-hyoid membrane, and forms an interesting transition to the air pouch found in the lower monkeys, which has a single median aperture in the thyro-hyoid membrane.

The uvula is present in the siamang. The stomach resembles that of the orang; the cæcum has a large and long vermiform appendix. The liver is essentially bilobed, but the spigelian lobe presents an approach to the elongated, pointed form it has in the chimpanzee. The left carotid artery arises from the innominate as in the lower apes. The right lung has four, the left two lobes. The brain shows a degradation of type as compared with the previously described genera. Its volume is smaller in proportion to the size of the body; the hemispheres are flattened and depressed; and the frontal lobe is smaller, more pointed, and excavated inferiorly. The most remarkable peculiarity is the great reduction of the posterior lobe, which in the siamang, alone among apes, as shown by Mr. Flower, does not completely cover the cerebellum. The convolutions and sulci have the same general distribution as in the other anthropoid apes, but are more simple and symmetrical; the internal structure is also essentially the same. The anatomy of the reproductive organs has not been fully worked out in adult specimens, nor are there materials at command for the study of the general character of the two sexes, and the extent of variation in the different species. The law of growth appears to be the same as that of the other great apes.

From the gibbons to the next succeeding group is a great and sudden step; it will be well, therefore, to pause and review the principal characteristics which distinguish the group of apes we are just leaving, which may be called the "anthropomorpha." The characters which separate them from the lower forms we are not yet in a position to consider. Their differences from man may, however, be thus summed up. The hair is more abundant upon the dorsal than the ventral surface of the body. The nose does not project to anything like the extent it does in man. The size of the brain case is very notably inferior to that of man. They are greatly more prognathous and macrognathous. The premaxillary suture is far more persistent. The spinal curvatures, especially the sacro-vertebral angle, are much less marked. The radius is more curved, and the interosseous space larger. The pollex is less than half the length of the hand. The form of the pelvis differs considerably, its vertical height is relatively greater, the ilia are less curved, and the ischia more everted. The femur is shorter than the humerus. The tarsus less than half the length of the foot. The upper face of the astragalus looks obliquely inwards. The calcaneal process is shortened, and does not form an inferior tuberous mass. The form of the articular facet on the entocuneiform bone is specially modified to allow of the mobility of the first digit. The whole foot has ceased to be an organ of support, and has become one of prehension. In the muscular system we have noted the absence of the extensor primi internodii pollicis, and of the peroneus tertius, and the presence of the levator claviculæ and dorso-epitrochlear; the tendency to the subdivision of several muscles which are single in man; the origin of part of the flexor brevis digitorum from the tendon of the long flexor; the comparative freedom from each other of the flexor longus hallucis and the flexor longus digitorum, and the larger share taken by the former in furnishing the tendons for the toes; and lastly the union of the flexor longus pollicis and the flexor profundus digitorum. The viscera present no striking differential characters. The brain besides being smaller is more simple and symmetrical in its surface markings. In the dentition the roots of the premolars are more complex, the canines are much larger, and later in their eruption. Lastly, there is the very important and singular difference in the law which regulates the proportions of the body and limbs during their growth.

FROM ABROAD—RECOVERY OF M. FLOURENS—MEDICAL CONGRESS AT LYONS—COMPRESSION OF THE TEMPORAL ARTERIES IN CEPHALALGIA.

The business of the Academy of Sciences was preceded the other day by one of those touching personal recognitions which men of science like to bestow on each other on the Continent, and which are too rare among ourselves. M. Flourens having been kept away from his duties as Secretary to the Academy for many weeks in consequence of a dangerous carbuncle, which entailed the necessity of free incision, on resuming his functions said "I beg to thank the Academy in general, and each of its members in particular, for the marks of sympathy with which they have honoured me during the painful disease I have just traversed. I owe my life to M. Velpeau, and happy am I in expressing my gratitude to him in the midst of the Academy itself." M. Velpeau replied that he had only done for M. Flourens what he would have done for any other, obeying in that the first and most imperious obligation of Professional duty. Happy, indeed, was he that his endeavours had been crowned with success, first as Surgeon, next as friend, and then as Academician, because he hoped that M. Flourens would continue long to fill his present post. "These reciprocal testimonies of esteem and affection," observes Dr. Legrand, "of which a kind of false shame, perhaps, renders the public expression too infrequent, are a good and reassuring thing. They show the man under the *savant*. They make us love the one and render—how shall I express it?—more agreeable and more human the admiration we may feel for the other."

The Medical Practitioners of Lyons, following the example given them last year by those of Rouen, have determined to

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hold a Medical Congress in the second city of the Empire on September 26 and five consecutive days. No topic relating to Medical politics will be considered, and the following questions will be discussed:—1. Sanguineous concretions in the heart and vessels, the conditions favouring them, the symptoms which they give rise to, and the therapeutical indications. 2. Can we at the present time admit into the nosological scheme as morbid entities the different paralytic affections recently described under the names of *shaking palsy, progressive wasting palsy, ataxie locomotrice, reflex paralysis*, &c.? Does there run through these a symptom common to different diseases of the nervous centres? 3. Establish by exact facts the curability of phthisis, and distinguish among the varieties of this disease those which are and those which are not susceptible of cure. 4. The value of the different modes of treating complete and incomplete anchylosis, both with regard to change of position and re-establishment of motion. 5. What progress in Surgery is due to modern researches on the osseous system? 6. The modes of diæresis which can be most advantageously substituted for the cutting instrument with the view of avoiding the accidents consequent on wounds. (Cauterisation, *écrasement*, ligature, *arrachement*.) 7. On consanguinity in general, and especially on consanguineous marriages. 8. The production of parasites common to man and animals, especially in relation to public hygiene. 9. The nature of the contagion in the economy of a syphilitic subject, and the practical consequences to be deduced. 10. What are the services to be demanded from the forceps, and how far do the different varieties which have been invented fulfil the various indications? 11. The possibility and propriety of removing certain categories of the insane from asylums and placing them either in agricultural establishments or in their own families. 12. Of the value of iridectomy in glaucoma and other deep-seated lesions of the globe of the eye. Two of these subjects will be discussed in the order above mentioned on each of the six days on which the Congress is held, and any person having communications to make upon any of them must apprise the committee and forward his paper, or an abstract of it, at least forty-eight hours before the opening of the Congress. Letters to be addressed to the President de la Commission Exécutive, M. le Dr. Barrier, 26, Rue du Pérat, Lyon. Medical Practitioners not inhabitants of Lyons are not required to make any payment.

M. Guyon related, in a paper read at the Academy of Sciences, that, during the epidemics of yellow fever which he witnessed in the West Indies, he was often in the habit of feeling the pulse at the temporal artery. One day, having compressed it with more than usual firmness, he found that the intense cephalalgia, which is an accompaniment to this affection, was greatly relieved; and further trials made by compressing both temporals were attended with complete disappearance of this symptom. It became then a question whether this fact could be turned to practical account, and whether it would be attended with any notable inconveniences. The headache in yellow fever constitutes so predominant a symptom that some Practitioners have even resorted to scarifications and opening the temporal artery to obtain relief. Compression has, indeed, been used after a fashion by the native women, who, dividing a lemon in two, bind the halves on each temple by means of a bandage passed several times around the head. This cannot, however, be long continued without a certain amount of irritation of the skin being induced; but there can be no doubt that the pain is relieved or removed in this way as long as the pressure is continued. Moreover, as well as under a more effectual mode of compression, not only is the pain relieved, but the patient comes out of his state of torpor or somnolence, breathes freely, and replies cheerfully to questions addressed to him. The best mode of exercising compression is by a semicircular curved band of steel, provided at each end with a pad resembling that of a hernia truss, and which is moveable, so that the compression need not always be made precisely on the same spots. Enough space should be left between the steel arch and the forehead to admit of the cold applications being made to the latter which are found so useful in yellow fever. M. Guyon feels certain that compression will also be found of the same utility in the cephalalgia of other forms of fever.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF BRIGHTON.

Places of resort for the invalids of England have of late years become so numerous that it is a point of great difficulty at times for the Physician or the Surgeon to decide to which locality he shall direct the footsteps of his patient. During the last century the difficulty was not so great, Bath and one or two other towns monopolising all the "resort business;" but even then there were difficulties, and the Faculty was not at all times agreed as to the best. Satirist Swift, Dean and wit, must needs make an inquiry of his friend Arbuthnott whither he should go for the cure of a vertigo; and Arbuthnott, whose wit was greater than that of most of his comrades, and whose humanity was greater than his wit, replies by recommending "the Geronster waters, which will not carry from the spot;" by which he meant to indicate, in his terse style, that change only was necessary, and that it mattered little where the invalid resorted, so long as he found a place where the waters would not carry, but must be visited, and that there was a custom in his day of specially recommending certain districts, which custom was rather too artificial and fashionable to be strictly satisfactory.

A consultation in these days, and "where shall the invalid go for change" the subject of discussion? Suppose some one said, to the Geronster waters, or any waters or any seaside that won't carry. How dreadful would be the heresy! It would not do for thee now, learned Arbuthnott, though thou still couldst do everything except walk, and couldst talk better than Macaulay, or Brougham at his best. Thou must not use that dry wit again. Thou must take a list of towns, and of bays, and of mountains, and I had almost said icebergs, and settle the point flat, whither thy patient shall go, and if he ask thee for an extreme thou must be ready with an answer. Shall it be Iceland, or Panama, through Norway or gentle Italy, some new town in England, or a newer town still at the Antipodes?

And again, good sir, if you decide on a seaside resort, let the Geronster waters alone, for it will not do now to give answers with pregnant satire in them. This is a practical age. How many baths shall that sick man have per day, Sir, to a bath? Shall he go into the sea; and, if so, how many times a day, and for how many minutes at a time? Shall he swim if he can? Shall he be dried with a rough or soft towel, a flesh brush, a hair glove, or a diaper? If he have a warm bath, what shall be the precise temperature, and is it advisable to take a pocket thermometer? Shall he be shampooed, and, if so, for how long? Shall he take a little brandy before the bath or after it? These, and a hundred other questions, my dear fellow-graduate Arbuthnott, dead, and yet speaking, thou must answer, man—quickly, shortly, and surely; or that guinea that glitters so feebly behind a mountain of fist will be the last ridiculous mouse thou shalt deliver from the mountain.

Hard times these for the Faculty, when no man lives who, like Radcliffe, dares send a hypochondriac a month's journey to consult an imaginary doctor,—or talks of Geronster waters that won't carry, like the talk of Arbuthnott, or tells a great man, as did dying Garth, that the nearest Esculapian is the best to be consulted. Hard times, when all that is spoken must be by rule of thumb; when our science is so near the absolute that we must be absolute, and bid the sick man go at once to this or that place as authoritatively as an American General would tell a private soldier to walk into a cannon's mouth! Very hard times; harder than "very hard cash."

But so it must be; universal error is practical truth, and the errors of the people in regard to places of resort for the

sick are, in fact, not true, by virtue of their universality alone. There is something—it may be very small, but it is something—to be learned respecting the special facilities and advantages of particular towns for particular disorders. If Bath merely beat Bristol in that it possessed a Bath chair or two, while Bristol had nothing but dog-carts, Bath would be better than Bristol for patients with broken legs. And thus every place has its peculiarities, natural or artificial, and we must not be too proud or cynical in learning them.

We have dropped at last, in our historical meditations, on a watering-place, a very famous place now-a-days, sometimes called "London-on-the-Sea," once called "Brighthelmston," and now, for short, Brighton. We enter it not as mere tourists, not as invalids, but to see what is in it medically that is worth seeing. The history of the town has been at various times well worked up. There is a first and excellent history of Lewes and Brighthelmston bearing date 1795. The author's name is not given, but that of the editor and proprietor is given, and is that of William Lee. Lee dedicated this work to George, then Prince of Wales, and the book itself is good, but the dedication (which is without exception one of the most fulsome craven "letters dedicatory" in existence) dishonours it. Another work of modern times, entitled "History of Brighthelmston; or, Brighton as I View it and others Knew it," was published so late as 1862. This book was written by Mr. John Ackerson Erredge, but unfortunately was not quite completed by him, he having died suddenly while engaged on the last few pages. The work was brought to a close by the sons of Mr. Erredge, and it is a really good work, showing evidence of great research, of fairness of expression, and of careful style. It is a work that is truly historical; not a guide-book, to be read and thrown aside, but a book to be placed in the library for general reference as part of the universal history of England. Lastly in the Sussex Archæological Collections, volume ii., an excellent paper will be found from the pen of the Rev. Edward Turner on "The Early History of Brighton, as illustrated by the Customs of the Ancient Fishermen of the Town."

Surrounding the ancient history of Brighton, or, according to its first name, Brightelmstun (*Brightelm*, the name of an early manor holder or local saint, and *Tun*, Saxon for "town"), there is not much light. One historian claims that the place was an early British settlement, whither the Druids were wont to repair and carry on the mysteries of their faith. The existence of Druidical remains in the neighbourhood has led naturally to this conclusion. There is further evidence, and more satisfactory, that it was a station, probably for fishing or hunting, held by the Romans, for according to the history published by Lee, "there was dug up near the town in the year 1750 an urn which contained a thousand 'denarii' of different impresses down from Antonius Pius to the Emperor Philip, and since that time there have been found in some of the burghs or burrows to the east of the town, ashes and fragments of human bones enclosed in urns of Roman manufacture."

During the Saxon time, it has been presumed that the town and manor were held by Thanes (Saxon nobles), and that they were of the line, or rather constituted the line, of the famous Earl Godwin, father of King Harold the Second, who fell at Hastings before Norman William. At the death of Earl Godwin it would seem that Brighton was divisible into three manors, two of which were left to Harold and another to one Brictric for his life only. Thus Brighton claims as one of its ancient Saxon lords, or thanes, the last and almost the purest and the bravest of the Anglo-Saxon kings.

But little important military fame attaches to the town. In the period previous to the Conquest it was probably purely a fishing station, consisting of a number of huts, with drying-grounds for the nets and small creeks or harbours for ports. There on that beach, which now is crowned by the Marine Parade, whither the richly-dressed subjects of Victoria congregate and walk and talk and hold such mixed and yet exclusive companionship, the subject of Earl Godwin and gallant Harold put in his caravel from Norwich or London, unfurled his sails, emptied his cargo, and away to his hut to eat and drink and sleep in a fashion that is now forgotten and can never be fully recalled.

The Conqueror, with his usual benevolence to his comrades, made over Brightelmston to William, Lord of Warren in Normandy. This nobleman was afterwards created Earl of Surrey, and in his line the possession passed downwards towards our time. But this was not the only effect of the Conquest. Soon afterwards Flemish adventurers, to whom, as we have before seen in describing Lynn, England was a land of promise, flocked to Brightelmston in large numbers and added to its commercial activity.

The historians all agree that no correct idea of the town is obtainable earlier than the year 1545. There is in the British Museum a map bearing that date on which the town is depicted; at all events, its main features are given. The map shows the place as divided into the "Upper Town" and the "Lower Town." The upper town was on the cliff, and according to Mr. Turner represented the space that is now occupied by the East, West, and North streets; and this space was divided into shares or allotments, which the inhabitants used for the growth of the hemp out of which they fabricated their nets. This upper town was occupied by what were called the "landmen," consisting of the men who tilled the land, and of the manufacturers. The lower town, which was under the cliff, remained as a primitive place, occupied mainly by fishermen, or, as they were called, the "seamen." This lower town was destroyed by the great storm of 1703. What is now called the Steine was in those days out of the town altogether. It was a space used by the fishermen, says my authority above named, for drying their nets; and in the manor book during the 27th of Elizabeth an order was entered "That no hog go unringed on the Stein where nets lie under a penalty of 8d. toties quoties." Imagine an order that none in the way of pigs except they be ringed shall be allowed on the Steine at Brighton! How strange it reads to modern eyes.

Those who gain first possession usually retain power for the longest period. It was so at Brighton; the fishermen for many a long day were the masters of the landsmen, and ruled the roast. But the landsmen increased and multiplied, at length grumbled, and at last nearly rebelled; they were told to pay taxes and dues, and do as they were bidden, and as they did not see the fun of the thing, they protested, and eventually won their rights. Originally the town was governed by a council known as "the Twelve," who elected two executive officers called the "constables" or "headboroughs," who sat in the borough court and heard cases, the Twelve acting as censors or jurors if need be. The "Twelve" continued to be chosen from the "seamen" until the year 1578, when the Lords of the Royal Council were petitioned to nominate proper persons to inspect the ancient customs of the place, and select from them an equitable little code for the future adjustment of all public differences. The commission was at once appointed, and the members produced a code which for long years was agreeable to all the Brightonians, landsmen as well as seamen, and the revised council of twelve continued to rule probably until the year 1772, in which year the appointment of town commissioners was legalised.

The diplomacy of the Lords Commissioners of Elizabeth was crowned with immediate and long-continued success; but their labours had also another advantage. When they arrived at Brightelmston, it was requisite for them to institute inquiries as to the rules and regulations of the past; and so they naturally began to move amongst the fishermen, and inquire of them as to their ancient customs and manners: the statements obtained were written down, and remain as great facts for modern antiquarian scholars, and which have aided them vastly in their researches respecting the first days of this early English and now famous town. Into these records I have not, however, time to inquire.

In the year 1558, owing to frequent threatenings of war from the French coast, the inhabitants of Brighton obtained permission to build a small fort, or blockhouse, and in 1613 this was enlarged with a wall extending 400 feet along the cliff at the part where it was most pregnable. A townhouse was also built behind, and a cell or dungeon for the incarceration of offenders. These efforts at defence, though they may have alarmed the French and held them at bay, were insufficient to meet the encroachments of another invader. For some years the Brighton coast was steadily encroached upon by the sea, and in 1703 and 1705, during two memorable storms, the little fort, with its gun-garden and all else, was undermined and buried. At this time in its history no town, surely, was poorer or more miserable than Brightelmston; the distress was such that the justices of the peace of the eastern division were led to make an abortive effort in 1708 to tax "the three rapes of the eastern division three halfpence in the pound towards the relief of the suffering Brighton community."

But little of importance seems to have occurred to attract attention at Brighton for many years after the flood of 1705. The inhabitants strengthened the cliff from the further encroachments of the sea by building up strong wooden barriers. In 1727 they dug a public well; and in 1733-4 they built a

Workhouse; but they were still poor, and borne down by taxation.

At last, about the year 1750, a great change came over the picture, and the foundation of modern Brighton as a flourishing town was laid. The whole credit of this change is due to one man, and that man a member of our own Profession. The Esculapian who worked the marvel is now but little known except at Brighton as an historical character. His name was Dr. Richard Russell, and he lived originally near to Lewes, at a place called Malling. The writer of Lee's history says of Russell "that he began about the year 1750 to revive and improve on the long-lost Medical use of sea water. By unwearied and successful attention to scrofulous and other glandular complaints under a marine course, he extended the fame of his practice and residence over the whole Kingdom. The erection of lodging-houses now became a profitable speculation at Brightelmston; and that late obscure fishing town began to increase in population and celebrity. The wonderful success of this industrious and deserving Physician appeared by several cases in his dissertation on the use of sea water. The most eminent members of the Faculty in England bore willing testimony to the great acuteness and the utility of his Professional investigations. The present flourishing state of Brightelmston (1795) and every benefit which the diseased have ever since received from sea-water, are therefore, in a great measure, to be imputed to the Medical labours and sagacity of this good man. He also caused a valuable Medical spring at Wick, about a mile from the town, to be enclosed within a basin; and a convenient little building was afterwards erected over it. The proprietors of a new street in Brightelmston named it after him in grateful commemoration of his services to the town; and the Rev. Dr. Manningham, of Jevington, has, in a great measure, ensured the truth of his prediction in the following epigram, by the elegant simplicity of its composition:—

"Clara per omne Ævum Russelli fama manebit
Dum retinet vires unda marina suas."

Considering that the above is from the pen of a local and admiring writer, we are bound to accept it *cum grano salis*. At the same time the description indicates how sincerely and how clearly the inhabitants of the once obscure fishing town trace the advancement of their locality to this one source. Whatever real Medical knowledge Russell might or might not possess, we may infer safely that he was a man of the world who knew what were the elements of success, and who knew not a little respecting the "waters that would not carry." That he was sometimes engaged in doing what he need not, strictly, have been doing, is clear from the circumstance that he attributed certain of his curative results to the use of a remedy found on the coast, and called "strombolo." This, says Lee's author, "is a species of ampelites, or black bitumen, highly charged with sulphur and salt. At Brightelmston it is called strombolo, which is a corruption from strom-ballen, stream or tide balls, the name given it by the Flemings who settled in the town. It formerly was used by the poor inhabitants as fuel, but has of late years been neglected, or, indeed, rather prohibited, on account of the very offensive smell of the sulphureous part of it when burning." This strombolo was used rather largely by Dr. Russell, who, after it was rubbed fine and strewed upon coals, "used to apply its hot steam through a funnel to the swelled glands of scrofulous patients, after those tumours had been fomented with sea water."

Dr. Russell was succeeded by another Physician named Dr. Rhellan, who continued to follow out the practice that Russell had introduced, and who wrote a natural history of the town, which does credit to his learning, and which added not a little towards increasing the popularity of the district.

In eighteen or twenty years time after Dr. Russell commenced his labours, Brighton had emerged from its obscurity altogether. Its character as a mere fishing station was partly forgotten; it had its public baths, its amusements, and its lodging-houses; and to add to its advantages the roads leading to it, especially the roads from the metropolis, were subjected to rapid improvement, so that in time the London and Brighton road was *the* road of the kingdom. A few years later the Prince of Wales, afterwards George the Fourth, took a fancy to Brighton, as it was by this time called, and made it his summer residence. Straightway a race-course was opened, encampments of soldiers began to appear round about, the Steine was "enclosed and turfed," and so rapidly did the population multiply that the number of inhabitants increased above two thousand from the year 1784 to the year 1796.

I have already said that the primitive council of "The Twelve" ceased to exist about the year 1772. In 1773 Parliament passed an Act, by which Brighton was placed under sixty-four commissioners, elected by the inhabitants; the commissioners saw to the lighting, paving, and the general management of the town. In 1810 the number of commissioners was increased to one hundred, and in 1825 they were again increased to one hundred and twelve.

Speaking in reference to the working of this act, Mr. Erredge says that under its provisions some of the greatest improvements of the town were effected. Thus, there was built a sea-wall, forming the southern front of Brighton, the Market-hall, and the Town-hall. The members of the Council also lent, at times, valuable aid to the endeavours of private enterprise, and altogether they may be said, in so far as the improvement of the town is concerned, to have performed their duties honestly and well. They worked for a century in advance, at least, and they do well who work a year beyond their own time.

Taking a hint from Mr. Thackeray, "I turn the picture to the wall" as the life of Brighton during the career of George the Fourth, a Brighton resident—or I should have said *the* Brighton resident—comes into view. That the town improved as a town of bricks and stone and mortar during his "profligate" is admitted; that its numbers increased and its wealth rose during that "profligate" is admitted. That a massive, and almost artistic, structure called the "Pavilion" rose as a residence for the royal corruption is a fact to be told, but not to be dwelt on, for one almost weeps as one reads even the apologetical accounts of this marine royal home during the profligate period. It is difficult to say which, indeed, was worst, the prince who ruled, or the Brighton that slaved to passion and intrigue and grossness that is now unspeakable.

With the passing of the Reform Bill in 1832 Brighton gained her representative voice in the Commons House, in 1854 she obtained a charter of incorporation, and in 1860 the Local Government Act of 1858 came into operation. Since the period of incorporation, the corporate body has shown itself vigorous in the management of public affairs, and one of the active members of our own Profession, J. Cordy Burrows, Esq., has twice held the mayoralty. A Medical Mayor of Brighton in these days contrasts strongly with one Dr. Matthews, who in 1680 lived there, the only Esculapian, and attended midwifery everywhere in the town at two shillings and sixpence per case.

Modern Brighton altogether, indeed, stands forth strangely in comparison with the past. She is essentially a fast town, producing, in the way of population, on her own soil a goodly increase, and receiving, as all such towns do, a great influx from emigration. Let us look at the facts of population. The registration district of Brighton has now an area of 2320 statute acres; and the population in 1861 was 77,693. For the same year the marriages were 803; the births, 2368; and the deaths, 1583. Of the 2368 births, 189 were illegitimate, including 99 males and 90 females. Of the deaths, 774 were males and 809 females, the excess of births over deaths being 785.

Brighton is divided, by the registration returns, into three districts—Kemp Town, with a population of 13,589; St. Peter, with a population of 42,156; and The Palace, with a population of 21,948. In Kemp Town, the births and deaths in 1861 were—births, 345; deaths, 209; excess of births over deaths, 136. Of the births, 15 males and 7 females were illegitimate. In St. Peter, the births were 1551; the deaths, 1023; excess of births over deaths, 528. Of illegitimate births, there were 70 males and 69 females. In The Palace district, the births were 472; the deaths, 351; excess of births over deaths, 121; the illegitimate births being 14 males and 14 females.

A note in Lee's "Ancient and Modern History of Lewes and Brighthelmston," 1795, may give some idea of the increase that has taken place in the population of Brighton since that time. It appears that in 1786 the population was a little over 3600; and in January, 1794, when the inhabitants were "carefully enumerated" previous to a general inoculation, they were found to number 5669. Mr. Erredge gives the following table showing the rise of population during the last hundred years. On reference to original returns from 1801, I find his figures strictly correct, and they may be trusted from the first:—

In 1761, population	. . .	2,000
„ 1786 „	. . .	3,600
„ 1794 „	. . .	5,669

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In 1801	population	7,339
„ 1811	„	12,012
„ 1821	„	24,429
„ 1831	„	40,634
„ 1841	„	46,661
„ 1851	„	65,573
„ 1861	„	77,693

While the population has thus changed, the modes of gaining a livelihood (the occupations of the people) have undergone no less a modification. Our census returns of occupations tell us that fishermen still live at Brighton to the number of 240, and that there is one fisherwoman; but beyond this there is no special business carried on marking either a staple manufacture or a staple industry. School-teaching and house-letting are the specialties, if any; but trades and callings of all kinds seem to flourish, and the business of the town is conducted so like that of London that it is only necessary for the Londoner to forget the town he is in when at Brighton, to feel that he is still in London, in so far as buying and selling and appearances of shops and style of articles and goods are concerned.

If we study the town by the method of the last census, and taking all the population above 20 years of age (including 44,672 persons) divide it into six classes—viz., the Professional, the Domestic, the Commercial, the Agricultural, the Industrial, and the Indefinite or Non-productive Classes,—we shall find them to stand in the following numerical order:—

1. *Professional Class.*—2734 persons, or 6·1 per cent.
2. *Domestic Class.*—18,905 persons, or 42·3 per cent.
3. *Commercial Class.*—2133, or 4·8 per cent.
4. *Agricultural Class.*—1452, or 3·2 per cent.
5. *Industrial Class.*—15,570, or 34·9 per cent.
6. *Indefinite and Non-productive Class.*—3878, or 8·7 per cent.

The present aspect of Brighton needs little description. Whoever has not been in Brighton, and has been in London and visited the West-end, has only to imagine that the Serpentine is the sea, with a grand sea-walk of some three miles long for an exercise, and he may know what he has to learn in the "Queen of Watering-places." Let me stop; I must qualify this a little. He will find hills in Brighton, which are not in London, and he will find no great squares like those which are in London. Further, he will discover in the people he meets at Brighton more of fluctuation, and more gaiety, and also more chronic sorrow, for amongst the comers and goers there are in the main but two classes—the pleasure-seekers and the health-seekers, the first all lightness, the second careworn, pale, and feeble: a strange admixture.

Poverty appears less on the surface in Brighton than in London, for the reasons, I presume, that it is less. There is evidence of imported poverty in the way of professionals, who know how to beg wherever there are riches in sight; but of all places, I never saw a place where mendicancy in its most degraded, helpless, and hopeless form is less apparent.

The great town now stretches out before from the English Channel, as if it were a gift of the sea; its broad base resting on the sea. In the centre, looking from the water inland, is the little open space where once the nets lay to dry, and the unringed animals might not enter—the Steyne—and, running from it, into the town, the Grand Parade. To the extreme left, beyond the King's-road, leading to Worthing, is the well-known chalybeate spring; nearer the centre the workhouse and cemetery; and still nearer the centre, the Eye Infirmary and Dispensary, the Self-supporting Dispensary, and the Lying-in Hospital. To the extreme right are the Blind and the Orphan Asylum; nearer the centre the Sussex County Hospital, the Deaf and Dumb Asylum, and the College; and nearer still, but respectively more remote from the sea, the German spa, the water reservoir, the water-works, and another cemetery. A town, in short, lies before us, built out from the sea, its main streets standing at right angles to the sea; its wings, right and left, not very deep; and its centre running far inland, with streets that at their extremes diverge on either side in gentle curves.

As we land, say by the magnificent pier called the Chain Pier, we will traverse the Marine Parade to the right, until we come to a turning inland called Paston-place, and now passing along a short ascent we reach the Sussex County Hospital, whither the foot of the Medical traveller would needs first repair. But before we make our way there, and before leaving this brief history of the town (for the details of which I am so largely indebted to the works of the eminent authors whose names have been quoted), let me add that as Brighton, in the first place, became important as a watering place through the labours of one Medical man, so the exertions of the members of the same Profession as that to which Dr. Russell belonged have never slackened. We hear it often said that the Prince Regent made the town. It is true that the Regent made the town for a time notorious, but that he did not made it famous and permanently important is proved by the fact that on his demise, notwithstanding the after visits of King William the Fourth, royal special favour gradually declined, and in this reign has virtually ceased altogether. But withal, Brighton has gone on to flourish and prosper, and, perhaps, at no period in her history was she really so great and prosperous as she is at this hour. Not only so, but I think it will be generally admitted, that when she was compelled to throw off the patronage which the "first gentleman of England" forced upon her, she became not only a better but a wiser community. Then she cast away her political oppression, and since she has had political rights has used them on the whole well and soundly, in and for the advancement of freedom and learning. Whence, then, this steady progression after the assumed cause of all the prosperity was removed? Some of this may be traced undoubtedly to the position of the town, its nearness to London, and the comforts that the traveller meets there. But after all, an immense share of the prosperity is due to the influence of the Medical men of Brighton. They have been at all times untiring in their exertions; they have been active in the local councils, foremost in suggesting sanitary and social reforms, determinate in promoting institutions for the relief of distress or misery in every shape in which it has presented itself; and, above all, resolute in making the advancement of their own science, as well as of the collateral sciences, an important part of their daily work. In these days, when the captious public, led by the nose by any pseudo-body-cobbler who may have tact enough to hide his own ignorance, asks, as it often asks:—What instance is adducible of any great public effort performed by the Profession? we may point to the town of Brighton very fairly, and say, "Here is a coast town, advanced amongst the first in civilisation; an influential town politically; a wealthy town, with noble charities supported by its wealth. One hundred and twenty years since, this town was a fishing station of small account. But it was seen by a Medical man to be worthy of a better fate; it has been steadily supported by his followers in every stage of its progress; and there it is, essentially a Medical town, discovered, we may say, and founded, by a Medical man, and sustained when it might often have sunken by its Medical element, which has been more to it than royal—viz., *loyal* and *thoughtful*."

REVIEWS.

The Classification of Skin Diseases: Containing a Tabulated Arrangement of all the principal Modern Classifications, and a Modified Scheme. By W. Tilbury Fox, M.D. Lond., Physician to the Farringdon General Dispensary. London: Hardwicke. 1864. Pp. 43.

The Nature of so-called "Parasites" of the Skin. By W. Tilbury Fox, M.D., etc. Richards. 1864. Pp. 24.

Treatment of Diseases of the Skin. By Dr. Wm. Frazer, Lecturer on Materia Medica to the Carmichael Medical School. Dublin: Fannin and Co. 1864. Pp. 174.

The classifications which Dr. Fox in the first work of the above list undertakes to criticise are those of Alibert, Willan, and Bateman, and Dr. Gull's modification of Willan's scheme, Startin's classification, those of Erasmus Wilson, Cazenave, A. B. Buchanan, Hebra, and Hardy. It cannot be expected that we should follow him through all his fault-finding. If a man wishes to become a Medical Ishmael, depend upon it there is no plan more likely to be successful than to start a scheme of classification of diseases. If the writer is himself dissatisfied with the results of other people's labours in this direction, he may rest assured that he will some day be picked to pieces in his turn. It is not our intention, however, to perform this friendly act for Dr. Fox; we shall only say that his classification is very elaborate, containing pretty nearly as many divisions and subdivisions as there are diseases to be arranged; and that we are not certain that this is not practically objectionable, however fairly Dr. Fox may represent the pathological relations of morbid conditions. But upon this we cannot enter. We will permit Dr. Fox, therefore, to plead his own cause. He says:—"It will be seen at once that I am disposed to make use of anatomical criteria with rather a different

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object than that generally held in view. Willan and his followers arranged skin diseases according to the aspect presented by anatomical features; I would rather classify according to the extent and seat indicated, and believe that our first grand division must be made in accordance with the latter. . . . . We must, then, bring these criteria under subordination to the knowledge derived from a careful study of the causation of skin diseases—a most difficult and, at present, very little hopeful task—and arrange the latter upon a plan based upon an equitable combination of these two methods of inquiry."—P. 16. "We may for completeness' sake make two grand divisions into parasitic and non-parasitic diseases." (We doubt whether every pathologist would accept this very first step.) "The *non-parasitic* may be arranged into two primary groups anatomically—1. Disease of the epidermis; 2. Disease of the dermis. The *parasitic* includes all affections due to the presence of animal or vegetable bodies, named respectively dermatozoa—dermatophyta. *Syphilitic* would signify another grand division, if need be. All the forms, however, rank under the second class of the new parasitic group, and it is only necessary to consider the modifying effects of syphilis in ordinary eruptions. . . . The tabular view defines the *limits* of disease generally, and the exact *extent* and *character* of the structure involved: it is also especially useful in a diagnostic point of view."—P. 40. These extracts will sufficiently prepare our readers for what they will find in Dr. Fox's modified scheme.

The second *brochure* on our list is essentially an attack upon an article by Mr. Erasmus Wilson in the *British and Foreign Medico-Chirurgical Review*, in which that eminent dermatologist maintains the derivation of skin parasites from a "granular degeneration" of normal tissues, interpreting this term by "the idea of an arrest of development of the cell-tissues of the epidermis at its embryonic stage, and the production of a tissue constructed of crude and imperfect materials, which represent an earlier period of cell generation than that which nature intended, and which, in consequence, is truly in a state of degeneration from the perfect type." "The whole matter," says Dr. Fox, "rests upon the solution of two questions. The one is, Are the so-called parasites vegetable in their nature? The other is, Can an animal by a retrograde metamorphosis ever become converted into a vegetable term?" The pamphlet is an attempt to meet Mr. Wilson on these issues.

Dr. Frazer's book is of altogether a different character to the above, being devoted to the therapeutics of the diseases of the skin. It is a book adapted for students and junior Practitioners, inasmuch as it supplies brief descriptions of the principal maladies, and remarks upon questions of differential diagnosis. On the whole, it is a useful, and, we have no doubt, will be a popular book. Its small size is in its favour. Each chapter points out the application that is made of some one class of remedies in the treatment of skin diseases. Thus, there is a chapter on mercurials, on Fowler's solution, and other arsenical preparations, one on alkalies, another on chalybeates, and so on. The objections which might be raised against this arrangement are we think fully met by a copious and excellent index, by the aid of which the student may readily ascertain all that the author has to tell him about any one disease that he may desire to become acquainted with. We cannot say we agree with all the author's pathology, but the book is full of the soundest practical advice. It is a common error among young Practitioners to make their local applications in diseases of the skin too strong—an error which sometimes in our experience has been productive of very disagreeable and unintended results. Against this Dr. Frazer is continually warning his readers; as where he is speaking, for instance, of lotions of chloride of mercury, iodide of mercury, and nitrate of mercury, ointments and applications containing creosote, carbolic acid, etc. He regards arsenic as a remedy of the alterative and not of the tonic class; as promoting the absorption of effete and diseased tissues, and one which, by causing an improved state of assimilation, gradually replaces morbid by healthy parts. Still, he adds, "the results which it produces are, in some instances, so marked and sudden as to remind us of the old idea of a specific," and he adduces "a case of chronic burrowing anthrax of the back occurring in an old gentleman of seventy, which had lasted for about seven months, and resisted all kinds of treatment." In this case Dr. Peebles employed Fowler's solution. "In forty-eight hours it had checked the progress of the disease, and the improvement was so rapid that it was difficult to believe it was due to the effects of the remedy; it was then discontinued with a view of determining what had caused the change, but the sloughing recurred, and was finally arrested only by resuming the solution and continuing it until the danger was at an end."—P. 22. His remarks upon sarsaparilla, too, quite coincide with our own views respecting this medicine. "I certainly never saw any decided results from it, as usually given; in former times, when this decoction was taken warm and in large quantity, and continued diaphoresis promoted by various means, it may have been more serviceable than at present, when, I believe, its Medical value is about equal to that of a cup of cold tea."—P. 23.

Throughout the book there runs a vein of good sense, which goes far to redeem cutaneous therapeutics from the slur of quackishness which is sometimes cast upon its professors.

The Prescriber's Pharmacopœia; containing all the Medicines in the British Pharmacopœia of 1864, *arranged in Classes according to their Action, with their Composition and Doses.* By a Practising Physician. Fifth Edition. London: Churchill and Sons. 1864. Pp. 156.

We are glad to welcome a fifth edition of this useful pocket volume. We fear, however, that in so far as it reflects the image of the new Pharmacopœia, it will be for some time less consulted than the older editions. But we do not see very well how the author could help himself.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

Our most important subject of professional interest now is unquestionably that of hydrophobia. It is certain that an "epidemic" (if that word may be applied to dogs' diseases) of rabies has been prevalent since the end of last year, and I am sorry to say that I have two more cases of hydrophobia to add to those already recorded.

The first is that of a man who was severely bitten by a dog on November 28. The ear, which was much torn, was completely removed by Dr. Petrie, to whom the man first applied. The surrounding bitten parts were cut out, and potassa fusa applied to the remaining surface. Up to April 18 he remained well. In the afternoon of that day he began to find some difficulty in swallowing, and on the 19th was admitted into the Southern Hospital under Dr. Cameron, and died thirty-six hours after his admission. The symptoms were very marked, the frightful spasm produced by any attempt to drink being unlike anything seen in other convulsive diseases. When with an immense effort the poor fellow had taken a cup of tea in one hand and a spoon in the other, and laboriously raised the spoon to his mouth, the first attempt to drink caused a convulsion which threw his arms violently out, flinging the cup one way, and the spoon another. The mere sight of water did not affect him, for it was noticed that when he had some difficulty in passing his water and some water was put into the bed-pan, he did not seem to be affected by it. A mere breath of air caused by waving the hand near his face brought on a convulsion. He was placed in a room by himself; opium was freely administered, first one grain by the mouth, then by hypodermic injections and by enemata, so that a quantity of morphia, etc., equal to twenty-six grains of opium was given in sixteen hours, and without producing more than a short sleep now and then. Beef-tea and brandy enemata were also used. The cause of death appeared to be failure of the heart's action, and for some time before the pulse was imperceptible. The pupil was dilated, and it was noticed that while the inspirations were almost inaudible, the expirations were loud, sudden, and jerking, their sound being such as to remind one of the barking of a dog. The constant flow of ropy saliva was most distressing.

A post-mortem examination of all the viscera, the brain, and spinal cord, revealed not a trace left by the agent in this most horrible disease.

The last case was that of a boy, aged 11, who was bitten on the lip by a sheep-dog on April 10. He was admitted into the Royal Infirmary, as a patient of Mr. Long's, shortly after the infliction of the bite. There was extensive laceration of the lip. Nitrate of silver was applied to the wound, which was afterwards dressed with turpentine ointment. He remained in the Infirmary; the wound healed, and the lad appeared to have recovered. He was employed in running

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errands, etc., about the Infirmary until May 8, when he became dull and heavy; the nurse thought he had simply taken too much to eat, but immediately that Mr. Nash, the House-Surgeon, saw him, he noticed a peculiar wildness in his look, and that he huddled himself up under the bed-clothes in a very strange manner. Some water was poured out of one vessel into another, and the sound appeared at once to occasion convulsive movements; afterwards, if he even saw any one going to move a water-can which stood near, he entreated them to leave it alone. The pulse and respiration were both very much hurried. Tobacco enemata frequently repeated quieted his pulse, and morphia was also freely given. Some of the special hydrophobic symptoms were relieved, so that on the afternoon of the day on which he died he managed to swallow some water, with a great effort. He sank, however, about midnight on May 8, about sixty hours after the appearance of the first symptoms.

The full particulars of this very interesting case will, I believe, be published before long. It is not very satisfactory to be informed that the dog who bit this boy bit six dogs, of whom only three have been put to death. Stringent measures are being adopted by the police to secure the confinement of all dogs, and a large number of dog-owners have been fined for allowing their dogs to be at large, and all dogs now found in the streets are led off to a speedy execution.

A very interesting case of imperforate anus was brought before the Medical Society by Dr. Irvine. The child, a boy, was born on March 13; the bowels not being moved by the next day, an examination was made, and an imperforate anus discovered. The child had thrown up some castor oil which the nurse had given it, and strained a good deal. There was some enlargement of the abdomen. Dr. Irvine made an incision about half-an-inch in front of the coccyx and about half-an-inch in length. Having divided the integument, he passed his little finger along the hollow of the sacrum, dividing the tissues with the knife until at a distance of about an inch and a-half from the surface he felt a pouch. This was opened, but no meconium or flatus escaped; the wound was plugged with oiled lint. The next day the lint was removed and found to be stained as if with meconium, and some flatus escaped from the wound. The lint was not replaced, and a dose of castor oil was ordered. The next day Dr. Irvine found that there had been three motions, the fæces being liquid and yellow. The oil was repeated daily until the 21st, when he ceased to attend. On April 1st he was sent for, and found that for a few days there had been but little action of the bowels, and that the child had vomited two or three times daily. There was great abdominal tenderness. The child became worse from this time, and died on April 10.

Post-mortem.—The small intestines were healthy, the large intestines enormously distended and filled with fæces, some of which appeared to have remained since the child's birth. The rectum measured five inches in circumference and communicated with the bladder. It is remarkable that nothing had been noticed on the child's napkins coming from the bladder excepting the urine.

I have referred more than once to the evils that illustrate the abominable results which ensue from the practice of "pauper nursing" in workhouses, and it is with no small gratification that I record an offer made by "a Liverpool man" to the workhouse committee of this parish, to defray the cost of a staff of trained nurses for a period of three years by an annual gift of £1000. There are at present fourteen superintendents over the various sick and infirm wards, and about 150 paupers, called nurses, who are not paid, to attend to nearly 1000 patients. It is proposed to have a trained matron, a staff of about fifty real nurses, and to pay those paupers who may be employed under them in various subordinate offices about the wards. To work this system it is calculated that an outlay of about £2000 a-year will be required, in addition to £400 for the preliminary expenses involved in providing proper rooms, furniture, etc. Never will two thousand a-year be better expended than in this way. The economy and order that will be thus promoted are trifles compared with the relief of suffering which this system will secure, and the value of the lives which it will save. The "Liverpool man" who has made this noble offer, anxious to avoid all display, has confided his name only to one of the members of the Workhouse Committee, and it is likely to remain unknown.

I regret to have to record the death of Mr. Wall, Medical officer to the Toxteth Park Workhouse, who died on the 16th ult. from typhus fever contracted in the discharge of his duties at the workhouse. He had devoted himself with no ordinary energy to his Hospital work, for which a period of ten years' service as House Surgeon at the Northern Hospital had been a very efficient training. A deservedly high tribute to the ability and unswerving integrity which had distinguished him was paid by the members present at the last meeting of the Toxteth Board of Guardians. A curious question arising out of the lamentable mortality among the Roman Catholic priests who visit the Fever Hospital of this parish has been agitating the select vestry—viz., whether one Roman Catholic chaplain should continue to take the whole charge, or whether, as was requested by the Roman Catholic bishop, the duties should be divided among seven. Unfortunately the matter was not decided upon sanitary grounds; and it is very much to be regretted that the one essential point—whether the danger to life is diminished by exposing seven gentlemen to the risk of infection once a week instead of exposing one to the same every day—seems to have been lost sight of entirely.

The two men, Brice and Scott, who so nearly murdered Dr. Rowe in the assault which I mentioned in my last letter, were fully committed for trial. Bail was still refused, and I see that an application is being made to obtain from the Court of Queen's Bench a reversal of the magistrate's decision in this matter.

GENERAL CORRESPONDENCE.

CONCERNING A HITHERTO UNNOTICED CONDITION OF THE URINE IN DISEASE.

LETTER FROM DR. ANDREW CLARK.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have been for some time in the habit of examining the urine of all my out-patients at the London Hospital; and, though the scope of these examinations, undertaken for clinical rather than chemical objects, has been restricted to the narrow limits which other duties impose upon personal labour of this kind, a few results have been obtained, which are certainly of interest and may be of use to both chemist and Physician.

As one of these results reveals a condition of urine and response to reagents hitherto unnoticed, touches a question still discussed by physiological chemists, and suggests fresh trains of thought about the relations of the transformations of matter to the induction of disease, perhaps you may consider even this hasty and imperfect notice of the subject worthy of a place in your columns.

In searching for sugar with Trommer's test, one tints the urine with a solution of sulphate of copper,(a) adds caustic potash in excess, and notes that the colour of the mixed fluids before boiling is, according to certain circumstances, one of the many shades of blue or green.

But in the course of my examinations I have found a good many exceptions to this behaviour of urine with solutions of potash and copper; and it is to one of these exceptions that I desire, through the medium of this letter, to request the attention of your readers.

In fifteen cases examined by me within the last few months, the urine became, after the addition of copper and potash, neither green nor blue, but of a very bright violet colour or of some shade of purple.

These cases were divisible into two classes. In the first class, the purple colour disappeared after an interval of from one to ten minutes: in the second class, the purple colour remained for many days.

All the examples of the second class contained albumen: those of the first seemed to have no condition in common, and were certainly not albuminous.

In order to discover the cause of this peculiar reaction, I selected the cases in which it was transitory, placed the patients upon a scrupulously simple diet,(b) and made arrangements to secure examination of the urine fresh from the bladder.

Of the seven non-albuminous cases submitted to examination, one was treated for bronchitis, one for pneumonic phthisis, one for dyspepsia, one for rheumatism, one for

(a) Always for the sake of comparison used by me of one strength—10 grains to the ounce of water.

(b) Breakfast: Bread and butter, with half a-pint of tea. Dinner: Meat, bread, potato, and half a-pint of water. Tea: The same as breakfast. No supper. No stimulants.

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hysteria, and two for chorea. All the patients were "nervous," and suffered in common from such lesions of sensation as fidgets, formication, and subjective numbness.

All the specimens of urine were above the average density, below the normal standard of colour, intensely acid, and gave indications of the presence of small quantities of bile. After much time and labour fruitlessly spent in various directions of inquiry, I fell at last into a line of observation and experiment which led me to the object of my search.

The first fact which I discovered was, that specimens of urine which when just voided gave a purple reaction to Trommer's test ceased to do so after from two to ten hours' exposure to the air.

For the sake of comparison among my further experiments, I selected a man, 37 years of age, the subject of neuralgic rheumatism, whose urine became of a bright violet on the application of Trommer's test before boiling.

On boiling a drachm of this urine in a test tube, pouring it from one test tube to another till cold, and then applying Trommer's test, the mixed fluids became of a pale brown colour with a scarcely perceptible tint of purple.

To a drachm of the same urine I added a like bulk of liquor potassæ, shook them together in a test tube for a few seconds, and then added five drops of the copper solution. The mixed fluids gave no purple reaction, but turned at once to a light blue colour, which persisted.

It was evident from these experiments that the cause of the violet coloured reaction was owing to the presence in the urine of some volatile substance, which disappeared after exposure to the air, to heat, and the action of caustic potash. That substance was in all probability ammonia; and in the following, among other ways, I sought proof of this assumption:—

In a test tube over a drachm of freshly voided urine, which yielded the violet reaction to Trommer's test, I suspended a glass rod moistened with hydrochloric acid. Immediately white fumes were formed and fell into the lower part of the tube. When the employment of this test was varied by the application of heat to the urine or the addition of caustic potash, the white fumes were instantly formed, and were much more abundant and dense.

In a second tube containing a like quantity of the same urine which had fallen to the temperature of 70°, I suspended a slip of moistened turmeric paper. In a few seconds it became brown.

Into a third tube I put a drachm of the same urine which had been passed four-and-twenty hours before, and had ceased to yield a violet reaction to Trommer's test. On suspending over it a rod moistened with hydrochloric acid a scarcely perceptible white cloud was formed and fell slowly into the urine.

It became thus evident that ammonia existed in the urine, and was given off immediately after extrusion from the bladder at the ordinary temperature of the atmosphere.

And when it was found that the intensity of the violet reaction varied with the amount of ammonia present, and was not given when the quantity of this substance fell to the level of health, it seemed also certain that the occurrence of the one was owing to the presence of the other.

I attempted to estimate the quantity of ammonia in the urine and to determine the amount necessary to the development of the violet reaction. But the difficulties surrounding the operation were so numerous and so imperfectly overcome that I forbear giving expression to the result.

It is to be remarked that the violet reaction to Trommer's test is not produced either by the ammonia of decomposition or by the *mere* presence of albumen under any circumstance.

Into the second class of cases, linked together by the common presence of albumen, cases in which the capacity of yielding the violet reaction is not fleeting, and in which the colour, when produced, remains, I do not intend at present to enter.

I think I have said enough to show your readers that there is a kind of acid urine which becomes violet on the application of Trommer's test for sugar; that this colouration is due to the presence either of ammonia in considerable quantities, or of some volatile substance associated with it and given off at the ordinary temperature of the atmosphere, and that the only circumstances which as yet appear to be common to this, *the first class of such cases*, are the presence of bile in the urine and the existence of nervousness and of such disorders of sensation as formication, flushes, and subjective numbness.

It is probable that these symptoms are due to some sort of renal dyspepsia, which leads to the transudation of albumen into the urine; and that the decomposition of the albumen anterior to the discharge of urine from the bladder is the cause of the presence of free ammonia or of lactate of ammonia before the setting in of alkaline fermentation. Such inferences, however, require confirmation or correction by further observation and experiment.

I am, &c.

ANDREW CLARK, M.D.

P.S.—I have assumed, as a matter of fact, though still a matter of dispute, the existence of minute quantities of ammonia in healthy urine.

LEGAL INTELLIGENCE.

CENTRAL CRIMINAL COURT.—JUNE 8.

PROSECUTION FOR KEEPING AN UNLICENSED LUNATIC ASYLUM.

(*Before Mr. Baron* BRAMWELL.)

MRS. SOPHIA LEANDER, of Zion House, Turnham-green, appeared on her recognizance to answer a charge of misdemeanour for having received into her house two or more lunatics, the said house not being a licensed asylum or duly registered to receive lunatics under the provisions of the 8th and 9th Victoria, cap. 100, sec. 44.

Mr. Montague Smith, Q.C., and Mr. Giffard were counsel for the prosecution; Mr. Serjeant Ballantine and Mr. Robinson for the defence.

The prosecution was at the instance of the Commissioners of Lunacy, who were appointed by Act of Parliament to superintend lunatic asylums and houses where lunatics are kept. About 1855 the defendant opened Zion House for the reception of women of diseased intellect. The institution was supported partly by voluntary contributions and partly by those of the friends of the inmates. At first it was conducted by a committee of ladies, but ultimately the whole management devolved upon Mrs. Leander, the defendant. The attention of the Commissioners was called to the establishment as early as 1857, and various visits were made to it by two of their body. They were at length of opinion that from the paucity of its resources the house could not be conducted as it ought to be. The law enacted that no person should be allowed to have more than one lunatic in his house, and if any one received two or more lunatics, unless the house was an asylum and registered, or unless it was duly licensed, he should be deemed guilty of a misdemeanour. Many persons having been received into Zion House, and the defendant not being able to comply with the requirements of the Act, the Commissioners felt it their duty to institute the present proceedings. They had no wish to injure the defendant, but it was necessary to put houses of this kind under the supervision which the Legislature required for the safety and protection of the unfortunate persons who were received into them.

Dr. Thomas Beach Christie, resident Medical superintendent of Pembroke House, Hackney, for the reception of lunatics, stated that on April 19, he went to Zion House with Mr. Lutwidge, one of the Lunacy Commissioners, and saw Mrs. Leander. He found about eighty persons in the house, and examined several of them. Among others were Julia Robinson, Sarah Medwin, Susan Gladman, Elizabeth Stuart, and Maria Burgess, the whole of whom he found decidedly of unsound mind.

On cross-examination by Mr. Serjeant Ballantine he said Mrs. Robinson was subject to delusions, which he considered to be unsoundness of mind. The distinction was difficult to be drawn between weakness of intellect and unsoundness of mind, but he was not aware of any case where a person not able to take care of himself had been refused admission to a lunatic asylum. Susan Gladman's case was that of a total loss of memory. She could not tell whether she had been in the asylum for years, months, or days. Burgess was a confirmed idiot, and totally incapable of understanding anything. Stuart was labouring under chronic mania, with excitement.

On re-examination, the witness said that Robinson's physiognomy indicated that she was insane, and he had not the slightest doubt that she was of unsound mind. With regard to Gladman, loss of memory arose from a diseased mind. He saw other inmates whom he did not know, and their state was that of idiots.

By the Judge: There was no definite line between a low state of intellect and idiocy,—where the one ended and the other began.

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Mr. Thomas Martin, chief clerk in the office of the Commissioners in Lunacy, proved that Zion House had neither been registered nor licensed.

This was the case for the prosecution.

Mr. Serjeant Ballantine then addressed the jury on behalf of the defendant. The case, although one of great importance, nevertheless lay in a very narrow compass. He could not complain of the mode in which the prosecution had been conducted towards the defendant, who, whether she had violated the law or not, beyond all question had been actuated by no selfish or improper motive. She had been the active instrument of what he believed to have been intended to be a very valuable charity, and had endeavoured with all her characteristic energy to serve the unfortunate inmates of her establishment. The question, however, was, had she or had she not violated the law? Because, if she had, whatever her motives or her object might have been, she was amenable to justice. He agreed that it was the duty of the Commissioners in Lunacy to take care that no asylum should be improperly conducted, and to protect those who were unable to protect themselves; but there was a class of people very different from those regarded as lunatics or idiots, who required equal care. There was a vast number of persons whose intellects were dull, whose powers of appreciation were small, and whose memory was very considerably weakened—especially those who had suffered from the terrible calamity of epilepsy — who, without being insane or lunatic, were almost or entirely incapable of taking care of themselves. For these an asylum was wanted different from that which was suited to persons of unsound mind. The wealthy had no difficulty in finding asylums of that kind for relations who were unfortunately afflicted. There were advertisements in *The Times* daily of such asylums from one end of the country to the other; but nothing of the kind existed for the poor; for them there was no refuge but the workhouse, and it was for the poor that the institution in question had been established and carried on for many years. The evidence, he submitted, was most unsatisfactory. For the purpose of placing a person in a lunatic asylum the certificate of two Medical men was imperatively required, and the world knew what fancies and theories Medical men had upon the subject of insanity; but here was a case in which the Commissioners rested the whole prosecution upon the testimony of a single man. The learned serjeant urged upon the jury that the defendant had acted upon the honest belief that she was quite justified in the course she was pursuing, and that under all the circumstances she was entitled to a verdict of acquittal.

Mr. Baron Bramwell, in summing up the evidence, observed that the defendant was indicted not for doing anything which was wrong in itself, or which, for aught the jury knew, might not be praiseworthy in its way, but for disobedience to an existing law. They must be satisfied that the cases which had been mentioned by Dr. Christie were case of insanity which brought the defendant under the operation of the law. For his part, although Medical men were often heard in courts of justice to define insanity and lunacy, he thought ordinary men of the world were just as well qualified to form an opinion on those matters as they.

The jury, after a short consultation, returned a verdict of "Guilty."

Mr. M. Smith, Q.C., said, as the object of the prosecution was to close the asylum, he would not call on the Court for any sentence if that point could be attained.

Mr. Baron Bramwell said the best way would be to hold the defendant in her own recognizances to appear at a future day if necessary, and then arrangements might be made in the meantime for the removal of the present inmates of Zion House.

The suggestion of the learned Judge was adopted, and the defendant left the Court.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.—The twenty-second annual meeting of this Society was held on Monday, the 7th inst., at the King and Queen's College of Physicians, Dr. Corrigan, President of the College, in the chair. The report, which was read by Dr. M'Clintock, was favourable, it appearing that, while there was no falling off in the subscriptions, upwards of £600 had been added to the funded capital, chiefly through the bequest of Dr. Kingsley, the honoured founder of the Society.

MEDICAL NEWS.

UNIVERSITY INTELLIGENCE. — CAMBRIDGE. — EASTER TERM, 1864.—SECOND EXAMINATION FOR M.B. DEGREE.—The following gentlemen were examined and approved:—

Alfred Godson, M.A., Trinity College; H. W. Hoffman, M.A., Trinity College; E. T. Leighton, M.A., Caius College.

(Signed) H. T. H. BOND, M.D., Regius Professor of Medicine.
G. E. PAGET, M.D., Linacre Lecturer on Medicine.
W. W. FISHER, M.D., Downing Professor of Medicine.

MASTER IN SURGERY. — The following gentleman was examined and approved for the Degree of Master in Surgery:—

Alfred Godson, M.A., Trinity College.

(Signed) W. CLARK, M.D., Professor of Anatomy.
G. E. PAGET, M.D.
C. LESTOURGEON, M.A.
G. M. HUMPHRY, M.D.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following members of the College, having undergone the necessary Examinations for the Fellowship, were reported to have done so, to the satisfaction of the Court of Examiners, and at a meeting of the Council, on the 9th inst., were admitted Fellows of the College:—

Claudius Galen Wheelhouse, East Parade, Leeds, diploma of membership dated May 25, 1849; Wm. Henry Folker, Hanley, July 4, 1851; Robert Brudenell Carter, Stroud, Gloucestershire, December 12, 1851; William Webb, Wirksworth, April 30, 1852; Alfred Cresswell, P. and O.S.N. Co.'s Service, May 28, 1858; Henry Wotton, Gloucester-place, Portman-square, February 18, 1859; William Travers, Charing-cross Hospital, April 17, 1860; James Beddard, Edgbaston, Birmingham, April 30, 1861; Arthur Wolcot Nankivell, Torquay, Devon, January 30, 1862; Bowater John Vernon, St. Bartholomew's Hospital, April 22, 1862; and Henry Willey, Poplar Hospital, November 19, 1862.

At the same meeting of the Council the following members, who had been elected Fellows at previous meetings of the Council, were admitted as such:—

Josiah Henry Selwood, Ampton-place, Gray's-inn-road, diploma of membership dated November 27, 1829; and Charles Samuel Webber, Connaught-square, March 25, 1836.

LICENTIATES IN MIDWIFERY.—The following members of the College, having undergone the necessary Examinations, were admitted Licentiates in Midwifery, at a meeting of the Board, on the 8th inst.:—

Samuel Mills, Consumption Hospital, Brompton, diploma of membership dated April 28, 1863; George Oliver, Bourne, July 30, 1863; Chauncy Puzey, Surrey-square, Old Kent-road; William Cubitt Lucey, Bermondsey, January 26, 1864; Frederick William Richards, Winchester, April 26, 1864; Henry Viant, Tatton, near Southampton, April 26, 1864; George Benson Baker, Bayswater, April 26, 1864; John Henry Salter, Arundel, Sussex, April 27, 1864; Albert Camberbach Reade, April 27, 1864; William Akerman, St. Just, Cornwall, April 28, 1864; and Henry Todd Broughton, Bradford, Yorkshire, May 10, 1864.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, June 2, 1864:—

Edwin Bold Pearson, Yeaneley, near Ashbourne; Henry Viant, Guy's Hospital; John Foot Churchill, Poole, Dorset; John Henry Salter, Arundel, Sussex; David Martin Williams, Camborne, Cornwall; Edward Casey, King's College Hospital; George Haycock, 172, Hackney-road; William John Wey, Edgcumbe-street, Stonehouse; Charles Edward Squarey, University College Hospital

The following gentlemen, also on the same day, passed their First Examination:—

Henry Denne, Guy's Hospital; John S. S. Perkins, Guy's Hospital; Algernon Ewen, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

DAVIDSON, A., M.B., has been appointed Resident Medical Officer to the Bradford Infirmary and Dispensary.

GIBSON, R. C., M.R.C.S. Eng., has been appointed Resident Medical Officer to the Jersey General Dispensary.

HATHERLY, Mr. H. R., has been appointed Dispenser to the Derbyshire General Infirmary.

MILES, George, M.R.C.S. Eng., has been elected House-Surgeon to the South Devon and East Cornwall Hospital, Plymouth.

SUTCLIFFE, W. H., L.S.A., has been appointed Physician's Assistant to the Manchester Royal Infirmary and Dispensary.

DEATHS.

BEWS, JAMES HAMILTON, L.R.C.S.I., Staff-Surgeon Army, at Jersey, on May 8.

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Bridson, John, M.D., Edin, at Douglas, Isle of Man, on May 24, aged 39.
Burgon, J., M.R.C.S. Eng., at Sydney, New South Wales, on March 8, aged 39.
Clark, George, M.R.C.S. Eng., at Coney-street, York, on May 22, aged 76.
Clough, Charles F., M.R.C.S. Eng., at Bawtry, Yorkshire, on May 20, aged 30.
Cox, Abram, M.D. Edin., at Berne, Switzerland, on May 26, of Kingston-on-Thames.
Kennedy, William S., L.R.C.S.I., at Comber, Co. Down, on May 27.
Mason, S., Surgeon, at Stockton, on May 13, aged 51.
Murphy Brownell R., R.N., at sea, on board the Cape Mail steam ship *Briton*, on May 28, aged 28.
O'Sullivan, William V., M.D. Edin., at Mohera House, Castlelyons, Co. Cork, on May 21, aged 48.
Pennington, James, M.R.C.S. Eng., at Needham Market, Suffolk, May 6.
Shipton, Martin N., M.R.C.S. Eng., at Clevedon, Somerset, on May 18, aged 70.
Shorten, Charles, M.R.C.S. Eng., at Sudbury, Suffolk, on May 25, aged 45.

We are requested to state, that in the pass-list of the Royal College of Surgeons of England, May 12, the name of Mr. J. Ruffe was accidentally omitted.

Royal College of Surgeons in Ireland.—At a meeting of the College, held on Monday, June 6, the following gentlemen were elected officers for the ensuing year:—*President*—Arthur Jacob. *Vice-President*—Samuel G. Wilmot. *Secretary*—Edward Hutton. *Council*—William Colles, William Hargrave, Robert Adams, James Barker, Hans Irvine, Edward Hutton, Robert Pentland, Richard G. H. Butcher, Thomas L. Mackesy. Awly P. Banon, Peter Shannon, Rawdon Macnamara, Hamilton Labatt, Benjamin M'Dowel, Edward Ledwich, Willinm Jameson, Alexander Carte, William Healy, and James H. Wharton.

The Indian Army Medical Department.—We hear that at length, after a vast amount of delay and numerous unfulfilled promises, Government, finding it cannot procure Medical officers for India, has determined to extend to the Medical service in that country the rates of pay provided in the warrant of 1858, in addition to the Indian allowances, according to relative military rank. We congratulate the Medical officers on this tardy instalment of justice.

The Great Northern Hospital.—The annual festival of this Hospital was held on Wednesday, June 8, at the Albion Tavern, Aldersgate-street, under the presidency of Sir L. Palk, Bart., M.P. We are very glad to find that many of the difficulties under which this Hospital during its early progress laboured are now disappearing. In its new situation in the Caledonian-road, Islington, it appears to be receiving not merely local, but a considerable share of general support. A handsome subscription list of at least £800 was read.

Royal Institution of Great Britain.—At the general monthly meeting, held on Monday, June 6, William Pole, Esq., M.A., F.R.S., Treasurer and Vice-President, in the chair, the Secretary announced that his Grace the President had nominated the following Vice-Presidents for the ensuing year:—William Robert Grove, Esq., M.A., Q.C.; Sir Henry Holland, Bart., D.C.L., F.R.S.; Henry Bence Jones, M.D., F.R.S., Secretary; William Pole, Esq., F.R.S., Treasurer; Major-General Sabine, Pres. R.S.; the Lord Stanley, M.P., F.R.S. William Acland, Esq., was elected a member of the Royal Institution. The Secretary announced the following additions to "The Donation Fund for the Promotion of Experimental Researches:"—Sir Roderick I. Murchison (2nd annual donation), £20; Alfred Hooper, Esq., £10. The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same.

A Chloroform Thief.—Many of the Parisian pharmaciens have been the victims lately of a curious form of theft. A lady of demure and respectable appearance enters the shop, and, after sitting down awhile, presents a prescription ordering fifteen grammes of chloroform for external use, signed by a well-known Physician, the frequent stamps around its margin showing that it has very frequently been made up before. The chloroform having been weighed out, the lady asks permission to be allowed to smell the bottle, and while carrying it to her nose lets all its contents fall, as if by accident, upon her handkerchief, which she has ready prepared for its reception. Returning the bottle, and apologising for her clumsiness, while a new quantity is being weighed, she applies the handkerchief to her nose and mouth and freely inspires the vapour; so that when the bottle is brought to her duly labelled and sealed, she is found in a deep sleep. The pharmacien awaits for her awakening with real anxiety, and then demands the price of his chloroform, but she can only reply by showing an empty purse, declaring that she has forgot her money. It ends with her being turned out of the shop.

Presentation to Dr. Mackesy, of Waterford.—Few among us have laboured with equal, none with greater zeal, or with such unwearying energy in advancing the honour and promoting the interests of our Profession, as the above-named distinguished Surgeon, and it is satisfactory to see that his eminent services are not overlooked by the governing bodies of the Profession, or by his brethren. Dr. Mackesy, having already had the honour of being the only provincial Surgeon ever chosen to fill the presidential chair of the Irish College of Surgeons, and having since received from the University of Dublin the honorary degree of Doctor of Medicine, was on Monday last presented, in the Albert Hall in the Royal College of Surgeons, Dublin, with a most gratifying testimonial of the esteem and gratitude of a large number (400) of his Professional brethren. The testimonial, which was accompanied with an address, consisted of a portrait of himself by the eminent artist, the President of the Royal Hibernian Academy, Mr. Catterson Smith, and of a very handsome epergne, the vase of which is supported by three female figures, emblematic of Faith, Hope, and Charity, "not inaptly expressing the virtues which adorn the Christian Physician," while the base bears a suitable inscription. The attendance upon this interesting occasion, both of town and country Practitioners, was very large.

Irish Medical Association.—The annual meeting of the Irish Medical Association was held on Monday, June 6, in the Royal College of Surgeons, Dublin, Dr. Mackesy, of Waterford, in the chair. Among the important points brought forward was the necessity of procuring superannuation allowances for the Medical officers employed under the Poor-Law and Medical Charities Acts. In connexion with this subject, Dr. Harte moved a resolution to the effect that Sir Robert Peel be requested to re-introduce his bill of last year. A communication received by Dr. Mackesy from the Director-General of the Army Medical Department, conveying the satisfactory information that the Indian Government has sent instructions to India that Medical officers shall receive the beneficial pay of the Medical warrant of 1858, and the Indian allowances of their relative military rank, was alluded to in the report; but Dr. Martin, of Portlaw, remarked that something more was wanted; that army Surgeons who served in tropical climates broke down in health very quickly, and that it was consequently desirable that they should have early opportunities of retiring from the service. He, therefore, moved the following resolution, which passed unanimously:—"That, as the Indian service is now under the Imperial Government, the probability is greatly increased of military Medical officers having to serve the regular routine of duty in tropical climates; they should, therefore, have the privilege of retiring on adequate superannuation allowances at the expiration of twenty years' service; and that our Council be requested to give early attention to this important subject, and that the co-operation of the Universities and of the Medical Colleges be solicited in the effort to obtain this just and necessary arrangement." It was also resolved that steps should be taken to procure an amendment of the Medical Charities Act, as under the present provisions of the latter the Poor-Law Commissioners have no power to limit the indiscriminate issue of dispensary tickets, which constitutes a great abuse of poor relief, and is an imposition upon the rate-payers.

The Ascot Railway Accident.—We are happy to be able to state that up to last evening the wounded by this calamity were all doing well, and there are only two cases for the results of which fears are now entertained. The names of the two most severely wounded, and whose lives are still in jeopardy, are Mr. E. Trigg, publican, of 34, Market-street, Brighton, and Louis Ray, the person who was mentioned as belonging to the household at Marlborough House, and who, it seems, is apprenticed to one of the cooks in that establishment. This lad, who is only 18, had the fore part of both his feet crushed and lacerated to such an extent that amputation was necessary to save his life. Mr. Fergusson accordingly went down yesterday to perform the operation, which he did with his usual skill and success. The foreparts of both feet were removed by cutting up diagonally through the soles of the feet, so as still to leave the heels and ankle bones untouched. The boy refused to take chloroform, and bore the operation with the utmost

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fortitude. Last evening he was doing as well as could be expected, though, of course, still in a most critical condition. Mr. Trigg remains at Charing-cross Hospital, to which institution, as we mentioned, he was removed at his own request on the night of the accident. Yesterday he was better, and consciousness had returned. In addition, however, to a broken leg and broken ribs, he has sustained some severe internal injuries, which makes the termination of this melancholy case more than doubtful. The company have already received notice of minor injuries to eight persons who were enabled to proceed to their homes, in some cases merely notifying the injury and demanding small sums for compensation, which were at once granted; in others only stating that such cuts or bruises had been suffered by them. Beyond these eight cases nothing had been heard yesterday, but, of course, it is known that a very much larger number have been hurt, though in every case the injuries are believed to be comparatively trifling. With the exception of Ray and Mr. Trigg, all the others, it is known, were enabled to come up to town and drive away from the station in cabs. The coroner's inquest will assemble to-day at Egham at two o'clock. The proceedings will be entirely formal, and will be opened merely for the purpose of enabling the jury to view the bodies before they are delivered to their relatives for burial. The Company asserts that when the inquiry opens, which it is understood will be in a week or ten days hence, after its formal opening to-day, it will be prepared to prove that the accident was not caused by any defect in the signals or any dereliction of duty on the part of the extra signalmen who were on that day specially employed at intervals of half a mile apart along the whole length of the line from Waterloo to Ascot. It may be satisfactory to the Company to prove that their organisation in this respect was perfect; but this will not in the slightest degree affect the main question of the liability of the Company in damages to all who suffered by the accident. Their having already compensated some of the sufferers who were slightly hurt is a fair proof of the opinion which they, at least, entertain of their own liability. —*Times*, June 9.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—*Bacon.*

Prof. Helmholtz.—We have received a copy of the six lectures, but no further communication has reached us.

Dr. Coghlan, Wexford.—The paper is intended for publication, and shall appear shortly.

We are glad to find that Sir William R. Wilde's lecture on "Ireland, Past and Present," has been published in a separate form by M'Glashan and Gill, 50, Upper Sackville-street, Dublin. It teaches more of European ethnology, *cito and jucunde*, than many other books of ten times the bulk.

An Old Practitioner.—The condition of things described by "An Old Practitioner" no longer exists. The University of St. Andrew's requires residence for its ordinary Medical degrees, as do the other Scottish Universities. The University of London makes up for the absence of University residence and discipline by the great number and stringency of its examinations. A license to practise Medicine from a Corporation and a Medical degree are not identical things, and to confound them would be, to our thinking, to introduce a fresh element of confusion.

A Chemical Query.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I have a large quantity of solution of sulphate of copper. Will any of your numerous correspondents kindly inform me how I can most readily obtain the metallic copper from the solution? I am, &c.

June 8. QUESTOR.

A Professional Gentleman (?).

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Is the following line of conduct correct?—A Surgeon is called to attend in her confinement the wife of a clergyman, the incumbent of one of the poorest parishes in Southwark. At the termination of the case the lady herself puts into the hand of the Surgeon £3 3s.; her husband, not knowing this, gave him a cheque for £5 5s. more. The next day the following conversation takes place:—"Oh, Mrs. A.," says the Surgeon, "your husband values his boy at a higher rate than you did; your estimate is three, his is five guineas." Mrs. A.: "Indeed; what do you mean? for I know nothing about it." Surgeon tells what has been done, and Mrs. A. assures him that her husband's conduct was a complete mistake. However, the Surgeon assures her that both she and her husband had done well, as he would have charged £2 2s. more for attendance during the month.

I don't know whether it is usual in town to charge poor clergymen £10 10s. under the circumstances alluded to, but, if so, such men either cannot pay it, or must let their wives die for lack of attendance.

I authenticate this case by saying that the lady in question is my own sister. I am, &c. F.R.S.

Bolton-le-Moors, Lancashire, June 1.

"John Harvey, M.D.," on Corpulency.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—With reference to your notice of a pamphlet on "Corpulency," in your Journal of last Saturday, I beg to call your attention to the fact that the name of John Harvey, M.D., London, does not appear in the "Medical Register" of this year. I fear, therefore, this is only another instance of a barefaced attempt of some unqualified Practitioner to make money by what you very properly designate as "the popular Medical absurdity" of Bantingism.

I am, &c. M.R.C.S.

Digitalis a Specific for Delirium Tremens.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Not very long ago I read in the *Medical Times and Gazette* an account of some cases of delirium tremens which had been successfully treated with digitalis, which was heralded into the notice of the Profession as if it was something new in the treatment of that disease.

A few days ago whilst engaged in making some references the following paragraph in the *Dublin Medical Journal* for 1836, vol. 10, p. 149, arrested my attention:—

"*Digitalis a Specific for Delirium Tremens.*—Dr. Cless, of Wurtemburg, states that he had found digitalis purpurea to be a specific in the treatment of delirium tremens. Of thirteen cases of this disease, in which he administered the remedy, all but two recovered; these two had a relapse. The digitalis was given in strong infusion, in doses of a spoonful every two hours. After symptoms of narcotism have made their appearance recovery ensues.—*Med. Correspond. Blatt. & Gaz. des Hospitaux.*"

June 3. I am, &c. ENQUIRER.

Iodine as a Disinfectant.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I have sincere pleasure in responding to Dr. W. Williams's request, and in stating that without doubt the first application of iodine for the purpose of disinfection in the way he names was made by him. Dr. Williams first employed iodine in the form of tincture or solution in the treatment of fœtid sores and suppurating glands, for which it—iodine—is *the* local remedy, and for the discovery of which as a remedy the Profession will always be grateful.

After Dr. Williams, Mr. Hoffman, of Margate, quite independently, used iodine in the solid or metalloid form by placing it in a chip box covered with "leno" near to decomposing organic matters, as, for instance, in the bed of a patient in cases of sore or wound.

The only credit that is due to me is, that after experimenting on a large scale on iodine as a disintegrating and destroying disinfectant, I have suggested its widest application for Hospital and domestic purposes, and have been so fortunate as to obtain a public hearing on this method of disinfection, which, by the way, is so simple and certain that it must, in the end, become universal.

It often happens in science—in fact, it usually happens so—that any new method or discovery is attached to the name of the man who was able to utilise it, or make it known as a general fact; and Dr. Druitt, in his excellent and suggestive note, was only following the common impression in assigning the credit of the discovery so kindly to me. But as the discovery of iodine as a disinfectant is likely to be considered very important in the future, Dr. Druitt will, I am sure, excuse me for setting him right, and, I hope, will think the better of me for the correction.

I am, &c. B. W. RICHARDSON.

Town *versus* Country.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I believe the following case to be a very unenviable exception; I should be sorry, indeed, for the day to arrive when the Profession in London was likely to follow such an unfriendly example, to say the least of it:—Some days ago I sent up a patient to Dr. ——, and with him a note fully entering into his early history and the treatment pursued during his late attack, asking Dr. —— to write me a line at his leisure, stating his opinion of the case, and ideas of treatment. Not hearing from the Dr., I wrote to my patient, residing for the time with his family in London. In his reply he says, "You need not be surprised at Dr. —— not writing to you, as it is his usual custom not to communicate with country doctors." In spite of my patient's explanation, I cannot but express the surprise of a gentleman at Dr. ——'s "usual custom," and trust that the rest of the Profession will not readily follow it, for, apart from all other considerations, the previous history of a patient is often of great importance to the physician. I am, &c.

Farnham, June. ROBERT ORE CLARK.

*** We can assure our correspondent that it is the custom of all respectable London Physicians to reply to country correspondents; but we may express our wonder that a respectable country Practitioner should send a patient to such a person as he names.—ED.

Dr. De La Pommerais.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—During the trial of this homœopathist for poisoning his mistress, it surprised me much that greater stress was not laid by the defence upon the fact that the body was so fresh after the lapse of fourteen days; as also upon another fact, that the heart was contracted. When a student, one of the first things I was told was, that the muscular fibres of the heart were relaxed and the blood fluid in those bodies where death had resulted from digitalis, and that speedy decomposition always set in. Experience has taught me that the instructors of my youth were right in making this statement. I will give an outline of one case that occurred some years ago on the Continent. An Englishman, strong and in the prime of life, had rheumatic fever, which attacked the brain and caused his death. For two or three days previous to his death he had taken large doses of foxglove. Among other symptoms, such as fainting, sickness, etc., which occurred shortly before dissolution, there was hæmorrhage from the nose and bowels; and on making a post mortem twenty-four hours after death, the blood was found quite fluid and the heart relaxed; and so rapid was the decomposition that the funeral was ordered to take place immediately. The smell from the corpse, even in the cemetery, was so offensive that the mourners, of whom I was one, were compelled to hold their handkerchiefs to their noses. I, as well as all who were acquainted with the particulars of the case, attributed this unpleasant phenomenon to the action of the digitalis. Were we right in forming this opinion or not? I am, &c., A. V.

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THE DEBATE ON DR. BRODIE'S PAPER ON THE STATISTICS OF QUEEN CHARLOTTE'S LYING-IN HOSPITAL.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The report of my remarks at the Medico-Chirurgical Society on Dr. Brodie's paper on the statistics of Queen Charlotte's Lying-in Hospital is scarcely clear. I said the mortality of the Guy's Hospital out-door Maternity Charity for the 15,000 cases recorded during the last ten years was 8½ per 1000. In this, however, I overrated the mortality; it should have been 2½ per 1000. I said since I had been attached to the Hospital I had not seen in the Maternity any cases of puerperal fever, properly so called—if, indeed, it exists as a distinct disease. All the cases which had been traced out arose from some zymotic disease in the same house. That there had been in the 15,000 cases only twenty-five of severe so-called puerperal fever, which included puerperal peritonitis, puerperal pyæmia, metritis, and their varied combinations. Of these half had died, making only about twelve deaths in the 15,000 cases. No doubt minor forms had occurred, but not of such severity as to give anxiety for more than a few days. The good results thus obtained I considered were in a great degree owing to the care observed in separating the attendant in any case where severe puerperal illness occurred from any further attendance on others till the nature of the disease was properly declared. Students dissecting are not allowed to attend labours. I remarked that, however contagious some forms of puerperal disease undoubtedly are, it was a curious fact that in two instances a student put to bed upwards of twenty cases, whilst attending a severe, and afterwards fatal, case of puerperal arthritic pyæmia without communicating that disease to either of the forty. I asked, in the event of an illness occurring at the charity in question, whether the nurse was kept entirely to the sick patient, as I considered that the best plan, when an illness threatened to confine the original attendant entirely to that case, obtaining a fresh one for the others. I may add, where possible, the same rule should be applied to the Medical attendant or midwife in such institutions. I am, &c.

9, St. Thomas-street, London-bridge. J. BRAXTON HICKS.

COMMUNICATIONS have been received from—

DR. JOHN TRIPE; B. W.; DR. J. BRAXTON HICKS; A. V.; DR. JOHN COGHLAN; M.R.C.S.; DR. W. F. CLARKE; APOTHECARIES' HALL; MR. RUFFE; MR. ROBERT OKE CLARK; ENQUIRER; MR. SYLVESTER RICHMOND; THE ROYAL COLLEGE OF PHYSICIANS; ROYAL INSTITUTION; THE COUNCIL OF THE SOCIETY OF ARTS; DR. C. R. BREE; MR. J. LUMLEY EARLE; QUESTOR; MR. ALFRED GODSON; Messrs. CAY and BLACK; MR. W. WHITE; MR. HENRY ELLISON; DR. KIRKWOOD; DR. DOUGLAS SPEIRS.

BOOKS RECEIVED.

The Camberwell and Peckham Ratepayers' Association defended against the Camberwell Vestry. By George Clifford. Peckham: Foster. 1864.

*** It is something new to find an Association of Ratepayers demanding a more energetic sanitary action from their vestry. This pamphlet contains some excellent remarks, which we quote:—

"Every Medical man is indeed an officer of health in the families he attends. If the women and children are subject to low fever, and he finds an open drain near the house, he recommends them (often to his own loss and inconvenience) to remove to a more healthy district. If he remarks a tendency to diphtheria, diarrhœa, etc., in a family, he asks if they suffer from bad smells, and recommends them to have the sewers cleansed and the drainpipes trapped. What the private Practitioner is to the family, the Medical officer of health is to the aggregate of families which make up the parish.

"Here and there, it is true, may be found an ignorant and bigoted Medical man, who refuses to recognise these 'new-fangled' doctrines, and is slow to believe in deaths from bad drains. But, as a rule, the Medical Profession deserve infinite credit for the enlightened and disinterested aid which they have given to the work of sanitary reform and improvement. It is not doubted that many Medical men practising in Camberwell are called upon to visit unhealthy districts within the parish, and have a strong opinion upon the sanitary remediable measures they require. In so large a parish many causes of sickness, disease, and death doubtless exist, which may have escaped the notice of the parish authorities, but which are perfectly well known to some of our Medical men.

"The Ratepayers' Association respectfully entreat the co-operation of the Medical men in their design of laying before the parishioners an exact and truthful account of the health, sanitary condition, and mortality of the parish and the causes which lead to an excessive death-rate in particular districts.

"The Association will consider these communications from Medical men as confidential. The names of the writers will be published or withheld as they may desire. It is proposed to refer their reports to a sub-committee of the Association, who will digest the above and any other information from general sources which may reach them relative to health and disease within the parish.

"The Association hope by this means to obtain a body of reliable and unanswerable testimony, which, it is unnecessary to point out, will greatly strengthen the hands of the Medical officer in any measures which he may in future feel it his duty to recommend for the sanitary improvement of the parish.

"Communications from Medical men in the parish and neighbourhood are requested to be addressed to the Chairman or Secretary of the Ratepayers' Association."

We hope the Medical Practitioners of Peckham and Camberwell will heartily comply with the wish of the Association.

The Twenty-fifth Annual Report of the General Hospital and Dispensary for Sick Children. Manchester: Printed by Thomas Sowler and Sons, St. Ann's-square. 1864.

*** The most interesting part of this report is the table showing the result of the cases in death or recovery in the several diseases treated. We would suggest, as an improvement in future reports, that not only the age of the patients on admission should be tabulated, but the mortality at each age also, viz.: under 12 months, under 1 year, under 2 years, under 3 years, under 4 years, under 5 years, under 10 years, and at 10 years and upwards. This would make the tables a little longer, but afford the sort of information which it is most desirable that the Dispensary should supply to the Profession.

Annual Report of the Cambridge University Natural Science Society. 1863.

*** The establishment and success of this Society is a matter on which we heartily congratulate the University of Cambridge. A portion of the report before us is devoted to discussing the desirableness of some of the College Fellowships being attached as a reward to distinguished acquirements in natural science. Undoubtedly a natural sciences tripos would appear to demand some such redistribution of the material advantages which the University confers on its most learned members.

Companion to the British Pharmacopœia; containing the Strength of the Preparations as compared with the London, Edinburgh, and Dublin, and the foreign Pharmacopœias, etc., etc. By Peter Squire, F.L.S. 208 pages, demy 8vo. London: John Churchill and Sons. 1864.

The Condensed Argument for the Legislative Prohibition of the Liquor Traffic. By Dr. Frederic R. Lees. London: J. Caudwell. 1864.

The Croonian Lectures for 1864—The Significance of Dropsy as a Symptom in Renal, Cardiac, and Pulmonary Diseases. By W. R. Basham, M.D. London: John Churchill and Sons. 1864.

The Essentials of Materia Medica and Therapeutics. By Alfred B. Garrod, M.D., F.R.S. Second Edition. London: Walton and Maberly. 1864.

An Inquiry into the Physiological and Medicinal Properties of the Veratrum Viride. By Samuel R. Percy, M.D. Philadelphia: Collins. 1864.

Corso di Elettro-Fisiologia in Sei Lezioni date in Torino. Dal Prof. Carlo Matteucci.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 4, 1864.

BIRTHS.

Births of Boys, 919; Girls, 974; Total, 1893.
Average of 10 corresponding weeks, 1854-63, 1664·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	639	574	1213
Average of the ten years 1854-63	542·2	520·9	1063·1
Average corrected to increased population..	..	..	1169
Deaths of people above 90	..	2	2

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	468,388	2	9	6	3	6	4	5
North ..	618,210	1	18	9	5	6	12	3
Central ..	378,058	..	12	4	1	3	4	4
East ..	571,158	1	23	19	1	12	4	4
South ..	773,175	4	24	14	2	11	12	7
Total ..	2,803,989	8	86	52	12	38	36	23

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·698 in.
Mean temperature	50·4
Highest point of thermometer	68·4
Lowest point of thermometer	32·4
Mean dew-point temperature	43·3
General direction of wind	Variable.
Whole amount of rain in the week	0·78 in.

APPOINTMENTS FOR THE WEEK.

June 11. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Alexander Herschel, Esq., "On Falling Stars and Meteorites."

13. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

14. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ANTHROPOLOGICAL SOCIETY OF LONDON, 8 p.m. Meeting.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Mr. Toynbee, "On Sebaceous Tumours in the External Auditory Meatus." Dr. Dick and Mr. W. Adams, "On Subcutaneous Incision in Stricture of Urethra." Mr. E. Barker, Jun., "On Progressive Atrophy of the Tongue."

15. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.

16. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m., Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

17. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

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HUBBUCK'S PURE OXIDE OF ZINC.

Sold by the London Wholesale Druggists, in Boxes, 14 lbs. each, stamped by the Manufacturers.

DINNEFORD AND CO., PHARMACEUTICAL CHEMISTS,

Beg respectfully to inform the Medical Profession that they are now Dispensing Physicians' Prescriptions with the

PREPARATIONS OF THE NEW BRITISH PHARMACOPŒIA,

except when otherwise indicated by the Prescriber.

172, NEW BOND-STREET, LONDON.

Pulvis Jacobi ver, Newbery's,

FRAS. NEWBERY & SONS, 45, ST. PAUL'S CHURCHYARD.

CHLORODYNE CHANCERY SUIT.

JANUARY 11th, 1864.

BROWNE AND DAVENPORT versus FREEMAN.

"It was fully proved and established in Court, before Vice-Chancellor Sir W. P. Wood, that Dr. John Collis Browne was the Discoverer of Chlorodyne.

"The Vice-Chancellor observed that Dr. J. Collis Browne's Chlorodyne was known before the Defendant 'Freeman' had ever thought of using the word; that the Defendant's conduct led to a very strong suspicion that there was a gradual course of proceeding on his part to mislead people into the belief that, when they bought his medicine, they were purchasing Dr. J. Collis Browne's Chlorodyne; and that, if the Plaintiffs could show that any one had actually been deceived, an Injunction would be granted."—*Times*, January 12.

Affidavits from eminent Physicians and Surgeons of the Metropolitan Hospitals proved, beyond doubt, that Dr. J. Collis Browne was the discoverer of Chlorodyne; that they prescribe it largely, and invariably mean the original Chlorodyne of Dr. J. Collis Browne.

An Affidavit by Mr. Warington, Chemical Operator to the Apothecaries' Company of London, also established the fact, that Dr. Browne was the inventor of Chlorodyne; that the Company receive large orders for the supply of Chlorodyne for the Public Service, Hospitals, Merchants, and the Profession; and that, when Chlorodyne is ordered, they invariably supply Dr. J. C. Browne's.

Affidavits from Messrs. John Bell, Pharmaceutical Chemists, 338, Oxford-street, and several leading Wholesale Druggists of London, to the same effect, and that, when Chlorodyne is ordered, they invariably supply Dr. J. Collis Browne's.

Sole Manufacturer—J. T. DAVENPORT, 33, Great Russell-street, Bloomsbury, London.

In Bottles, 1 oz, 3s.; 2 oz., 5s.; 4 oz., 8s.; 10 oz., 15s.

Neither Physician nor Surgeon in plaintiff's suit even mentioned Freeman's compound; so much for the *truth* of its being the *preferred* medicine, as stated by the defendant. It is equally untrue that the Vice-Chancellor intimated in the slightest degree that the defendant had the right to the sole use of the prefix Original, as quoted in his advertisement in the "Pharmaceutical Journal," March 1, 1864.

The observations of the Vice-Chancellor, as reported in the "Times," speak for themselves.

Each Affidavit from Physicians, Surgeons, and Chemists affirms that Dr. Browne's Chlorodyne was known to them in 1855; whereas the Defendant "Freeman's" Compound was not heard of until 1859, after the Original Chlorodyne had obtained world-wide fame.

THE ORIGINAL CHLORODYNE.

INVENTED AND MANUFACTURED, IN 1844, BY RICHARD FREEMAN.

By the decision of Vice-Chancellor Sir W. Page Wood, R. Freeman is entitled to the SOLE *right to use the word Original as a prefix to the word Chlorodyne.*

The large and still-increasing demand which the Inventor has for this therapeutic is evidence of the high estimation in which its properties are held by the Profession generally; and on a recent occasion a number of eminent London Physicians and Surgeons of long standing in the Profession, and who hold public appointments, made affidavits to the fact that Freeman's Original Chlorodyne is a more certain and reliable, a more valuable and a preferable, preparation to that of any other maker's. It is offered to the Profession as the best preparation of the kind, and at a price which allows the poorest sufferer to enjoy its extraordinary beneficial effects.

MANUFACTURED BY THE INVENTOR,

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ORIGINAL LECTURES.

LECTURES
ON THE
PROGRESS OF SURGERY DURING THE PRESENT CENTURY.

DELIVERED AT
The Royal College of Surgeons,
By Professor FERGUSSON.

LECTURE II.—WEDNESDAY, JUNE 8, 1864.

MR. PRESIDENT AND GENTLEMEN,—Bearing in mind the intentions expressed in my first lecture regarding the subjects to be selected, I propose to-day to refer to one in which I have been long and deeply interested. That which has largely filled the mind throughout professional experience, and which has gained strength by years, naturally takes a foremost place. The grand object of Surgery is to cope with injury, and to cure disease. All professional men agree on this point; but there is considerable variety of opinion as to the means of accomplishing the end, and as to one form of cure being better than another. Patients, ignorant of our resources, say, "Give us a cure; that is all we want;" but some of us are critical, and think upon the kind best suited to the circumstances. We reflect upon the nature of the accident or disease, its probable issue, how long it may be before a cure can be expected; and that being realised in our anticipations, we think further of the patient's probable or possible condition when it is declared perfect. Here it may be said that we at once touch upon the grandest features of high Surgery. With a full philosophical reliance upon the powers of Nature, and a wonderfully accurate knowledge, gained from experience, of what she is likely to do in any given case, we take upon ourselves the task, at one time of waiting on Nature, but perhaps as frequently of guiding her, —it may be gently, or it may be with rude force, and still with reliance,—that she will not fail to do that which we desire, and so expect a cure which shall be beyond doubt better than that which she might bring about when unaided by human skill. To wait upon Nature is an easy task, compared with that in which we attempt to guide or coerce her. Few men are more disposed than I am to give full credit to Nature; but I believe it to be the mission of Surgery to struggle with her when she is in error, and he who does this most successfully is the greatest master of his art. As with many other things in social life, the ways of Surgery get grooved; they are hallowed in the estimation of some; because our grandfathers did so and so, it is often alleged that *we* cannot do better. Although our grandfathers were our seniors, it is overlooked that we are living at a date when the world is older by two generations. The man who steps from the groove is often held to be rash, and there are more to applaud the common wayfarer than to approve the conduct of one who may seem to doubt the entire wisdom of his ancestors, and who wishes to test, by rational experiment, if he can or cannot improve upon the known order of things. Who can say that we have reached finality, even in the grandest conceptions of the human mind? and who, when seriously questioned, can say this of Surgery? The vast additions to our resources within the present century show how far Surgery was behind sixty years ago; may it not be that additions equally great shall come within the next sixty? One thing is certain, that unless some men strike from the beaten track, improvement and addition can hardly be expected. I have known Hospital Surgeons say that they should like very well to do this thing or that, provided it would prove to them practical. Supposing all Surgeons alike in this respect, we should never get the proof. The man of inquiry may have at least three objects distinctly in view, when he digresses from beaten paths. He may wish to produce positive novelty, or to get proof that a certain practice is so good that it should be more largely followed out, or so bad that it should be positively abandoned.

Revivals are rarely attended with success; yet great results occasionally follow; and I cannot refer to a more striking instance than that of the treatment of aneurism by compression. Thanks to the courage and good sense of Dr. Hutton, of Dublin, a practice virtually abandoned was again brought practically under our notice; thanks again to him, and his fellow-labourers in that city, it was shown to be of the greatest value. We often talk of schools of Surgery; and, without discussing the worth of the term, I may say for that of Ireland that no brighter emblem is associated with any other in these islands. Here was a revival, which set aside the use of the knife, in a large number of instances where it was thought indispensable, and a practice reintroduced, based upon principles almost identical with those which have been gradually developed since Hunter tied the superficial femoral artery for aneurism of the ham. Who among our fathers or grandfathers could have imagined that pressure was yet to become so valuable? and who among ourselves, ten years ago, supposed that a popliteal aneurism could be cured by the pressure of merely flexing the leg on the thigh? A simple mechanical process, indeed, yet founded on some of the best Surgical reasonings which we possess. Looking to the old age of Surgery, and the great men who have worked in the field, it is easy to perceive how rarely it must fall to the lot of any one to devise that which is new and also good. Even in such an instance, the worth of the novelty is seldom accurately appreciated. The story of Parè and the ligature is familiar to all who know a little of our Profession: may not a similar remark be made at some future day regarding Professor Simpson and acupressure? It actually seems to have escaped observation that even our great idol himself, John Hunter, scarcely was aware of the full value of his operation, while it was derided and opposed by those in high places. Hunter spoke modestly and hesitatingly of his own opinions; Bloomfield and Pott gave them their decided opposition. Bloomfield, a leading Surgeon of the day, used the following words:—"An extravagant proposition has been suggested by some people to tie up the principal trunk of an artery in the extremities. I once saw an attempt of this kind in a true aneurism of the ham, on which I shall only remark that the patient died; and I do believe that the embarrassments that occurred, as well as the event of the operation, will deter the gentleman (meaning Hunter) who performed it from making a second attempt in a similar case." Such was the language held regarding the greatest philosopher in Surgery, and regarding the views and actions that led to the operation, which, in my opinion, contributed more to the brilliancy and progress of modern Surgery than any other that I can name. With such examples as these, let no man who has common sense on his side be daunted by the cry that Surgery is in danger when novelty is proposed. Good is likely to come out of honest labour, although the best hopes may be disappointed; and as fair instances of the kind, I may remind you of the operations of tying the abdominal aorta and the arteria innominata. A caviller might ask the value of these heroic proceedings, as death had followed in every instance. My answer is, that they may now be taken as important precedents that such proceedings should never again be attempted in the human body. Happily, men are found in every generation who do leave the beaten track, and their labours are looked upon with greater interest than those of others, for they are emphatically the men of the time; their doings in a manner instigate, invigorate, and regulate the practice of the day; and when they are gone, if even a footprint be left, their names will stand prominent among those who have contributed to the advancement of Surgery.

Among various characteristics of modern Surgery, I shall now venture to draw special attention to a field in which I have myself been a humble labourer. To save life and limb is a grand feat; it may be said to be the highest reach in Surgery. There is a stronger feeling abroad at the present time than when I was young that amputation should be avoided by every possible reasonable manner. Whilst watching on my own account I perceived around me indications that others as well were thinking on this subject, and already proof had been given that the amputating knife was no longer necessary in many instances like those where it had previously been freely applied. That such a result has finally come about no one can hesitate to admit; and as a familiar illustration, I may at once refer to the treatment of disease of the elbow-joint. If synovial membrane, cartilages, and bones seem irremediably affected, or, in other words, beyond hope of cure within reasonable time, instead of performing amputation, the tissues chiefly affected are removed by a local operation, and fore-arm with hand are left so little affected that the limb may ultimately, as has often been proved, be nearly as useful as its fellow. I feel almost ashamed to bring forward such a common-place illustration, as every well-educated Surgeon of the present day must consider it; but I

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do so on purpose, for it is one which defies contradiction, and it is almost entirely a development of modern Surgery. The original suggestion of Parke, and its realisation by the elder Monro, produced but little effect either in this country or abroad, notwithstanding the clear manner in which they were brought before the Profession in 1806 by Professor Jeffray, of Glasgow, and it was not until the operation was taken up by Mr. Syme that it attracted any serious attention. Although claims have been put in for others leading the way in this direction, I cannot admit them as worth much consideration. Some of these cases are of mythical character. Those who dealt with them may be likened to the original settlers in Australia, who made roads and built bridges of the quartz in which gold abounded. Both were ignorant of the precious things they had in hand. I may refer to Sir Philip Crampton as one who zealously demonstrated the value of this operation; but even his influence would have been but little, and it was left for the energy of Mr. Syme, at the Surgical head of a great school, to place this operation on a sure footing, with a character of usefulness unexcelled in the range of Surgery.

But this is only one of the examples in which in modern times Surgery has triumphed in setting aside amputation; and to illustrate my present task, I must glance, although rapidly, at additional instances of success in this direction. I believe it to be a common opinion that when a piece of bone is bare or a joint grates there is no probability of recovery in the part, and that amputation is the proper course. This, however, is a great error, for bare bone is covered again in many instances, and a joint may still be so far restored that there may be a certain amount of motion in it; or, if not, there may still be a cessation of disease with a useful member. Even when bone is dead Nature causes a separation, and thus leads the way to its removal, either by spontaneous evolution or by the hands of the Surgeon, so that a limb may be retained with much of its original appearance.

These things are so thoroughly understood by most well-educated men of the day that it may seem strange to allude to them; yet my own experience has told me that fingers and thumbs, ay, even larger limbs, are frequently sacrificed, when a little waiting and judicious management might bring about a result far more creditable to Surgery and advantageous to the patient. It may seem to many almost beneath the dignity of my present position to bring such a case as this before you. A gentleman of active habits, and in charge of a large establishment, to whom the use of the pen was of vast importance, had a bad whitlow in the end of his right thumb. An abscess was opened in due time, when the distal phalanx was found bare. Amputation was thereupon urged, but the patient objected. He was then, on taking another opinion, advised to wait a little. In a few weeks the bare bone, consisting of about one-half or two-thirds of the phalanx, was removed by forceps through the original opening for the abscess, and ere long the thumb, seemingly entire, was as useful as it ever had been. There is the cast of the thumb itself. Let me add another case. A shoemaker—shall I say, to make the case more interesting, a son of St. Crispin, a great cutter in his way?—had a thumb similarly affected, and he, too, was recommended to have amputation performed; but a dead bit of phalanx was extracted here also, and he, like the other patient, rejoices in a useful thumb to the present day. I might recite many similar cases, but doubtless most of you here have had experience of the kind. If so, you will think with me that amputation in such cases is not required, and that when done it is a deplorable example of meddlesome, bad Surgery. It is in reality because I have seen so many cases of error in this direction that I have made so bold as to bring them under notice in this theatre, where naturally only the so-called grand things in Surgery may be expected to be spoken of. Opinions may differ; but, for my own, I deem it a grand thing when by patience even the tip of a thumb can be saved. I have the additional reason, too, for alluding to such cases, that they serve to illustrate a kind of practice in which I have for two-thirds of my experience as a practical man been deeply interested, and to which I have ventured to give a name, as if it were a special department in our Profession. With a conviction, founded on practical experience, that many limbs and members had been sacrificed by amputation which might have been saved, that deeds had been done which, on a superficial glance, seemed as high art in our Profession, when in reality they were indications of weakness, being the very opprobria of our calling, I ventured to draw attention to such matters in a paper in the *Medical Times and Gazette*, published on January 3, 1852, wherein I first made use of the term Conservative Surgery. It would, indeed, be arrogation were I to affect being the first in such a field of practice. In the paper referred to I showed how others had been before me; and it may be truly said that all Surgery is conservative, its grand object being to save limb and life; yet the phrase was new in Surgery, and was used in a particular sense, which it is partly my object to explain in this lecture. It is, indeed, with feelings of pride that I see and hear it used so familiarly. It is now a part of our common nomenclature. It is often in the mouths of those who know not its origin. It is used by military Practitioners as well as civil; it has become familiar in our provinces and colonies, and has resounded even from the Antipodes. It was in a manner hallowed when used as applicable to the practice of one of the last departed of our greatest worthies, Sir Benjamin Brodie; for the author of a memoir of that Surgeon thought it a high compliment to state that his practice was eminently conservative. Even now I know of no instance better illustrative of the subject than that which I described from Sir Benjamin's practice, in the paper alluded to. The memorable instance in which he amputated a leg for incurable pain in the tibia is one of the beacon lights of Surgery never to be forgotten. It was, if I mistake not, the model case on which all our modern ideas about abscess of bone are founded; and the pathological examination of that limb led to a line of practice of inestimable value, which even to the present day is, I imagine, scarcely appreciated at its full worth. Brodie saw that intolerable pain had been caused by a deep-seated abscess in the tibia, where the matter could find no escape. In the next case of the kind which came under his notice, he bored an opening in the side of the bone, gave exit to the matter, and so relieved the patient of pain, and, whilst curing his malady, saved the limb from amputation. The example has been followed again and again, and with great advantage; and I repeat that I know not even now a better illustration of conservatism in the whole range of practical Surgery. The operation was scarcely known when I began the Profession, and I confess that it was not until I had been many years in practice that I appreciated it at its full value; and in particular, to show to what it was, in a manner, the key, it led me to reflect on other instances where local operations had, or might have sufficed for, the sweeping mutilation of amputation; and I threw together a number of examples, wherein, after removal of parts locally, and even extensively, useful limbs had been retained. And thus I felt that the so-called opprobrium of Surgery, amputation, had in these cases been successfully set aside. As years have rolled on, this line of practice has been gradually developed into a kind of system, and many modern Surgeons are more proud of the number of members and limbs they can refer to as saved in this way, than others are of the comparatively common-place operation of amputation. Let me say, in extenuation of this expression, that no one can more thoroughly appreciate a well-performed amputation than I do; but I certainly appreciate more highly the operation which sets aside the necessity for that mutilation.

Since my views on conservative Surgery were first disseminated, I have observed with regret that some have allnded to the term without having a proper appreciation of its meaning. To treat a fracture in the ordinary way, to cure an ulcer, to deal successfully with a chancre with or without mercury, have been alluded to as examples of this sort of practice. Surgery is emphatically preservative or conservative in such cases; but the phrase was coined and used as applicable to a line of practice whereby the loss of a limb might be averted, and the meanest act of Surgery, namely, amputating a limb for a seemingly incurable local disease, might be superseded by a more perfect adaptation of Surgical science and art. I certainly should not presume to address you on this subject were it not that I have a strong conviction that Surgery has made great strides of improvement in this direction within the period of time to which these lectures are chiefly confined. Again I repeat that this kind of practice cannot be considered new—every saving act of Surgery may be so denominated—but the phrase in modern times has a peculiar significance, for it is meant to show that, instead of the sweeping and radical measure of total separation or amputation, a compromise may be made, whereby the original constitution and frame, as from the Maker's hand, may be kept as nearly as possible in its normal condition. When Hunter tied the superficial femoral artery for popliteal aneurism, he did a great act of conservatism. Here are his very words, in referring to amputation for aneurism in the ham, and to the old operation, which Pott objected to, owing to the state of the artery near

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the disease—"Why not tie it up higher, in the sound parts, where it is tied in amputation, and preserve the limb?" His object was to avoid amputation; and he then initiated a long and successful career in that direction. It was a vast idea, and a vast triumph for the time.

But, instead of thus in a manner reiterating, let me rather bring forward modern illustrations of conservatism to show the sense in which I wish the term used. At first sight it may appear that in dealing with tumours, when the knife is applied, there is no room for such practice; yet here even I believe it to be peculiarly applicable. There is a poetic fallacy regarding the skilful Surgeon who boldly cuts beyond the seat of disease, by way of making sure of its eradication, which should have no consideration with the good Pathologist. Whilst, doubtless, this maxim is safe in cancer, I believe it to be fraught with great mischief in most other cases; and some of the finest things in modern Surgery are done seemingly in the very midst of disease. As illustrative of this, I may refer to excision of joints. A feature of these operations is that they are done in such locality. Here we see the difference between ancient theory and modern fact. There is no need in such instances of making sure that all the incisions are beyond disease. The articular surfaces, possibly some portions of the ends of the bones, are the really incurable parts; and if these are once removed, the surrounding swelling, which to the eye of the ignorant will appear as the chief disease, will soon diminish, and ere long pass away. Yet what monstrous mistakes have been made on this very point! Limbs have not only been amputated, but amputation has been performed far higher than needful, because of the mistaken idea that the knife must sweep away all semblance of disease. It may seem strange to many here that I should refer to such a subject, for they will say, "Who can be ignorant about it? Who has not seen the elbow-joint taken out from the midst of great swelling?" But there are many who have not yet seen even the elbow-joint taken out, and many who imagine that great surrounding swelling is a bar to such an operation. Here is the cast of an arm on which one of the earliest excisions of the elbow in London was performed. I say this advisedly, for twenty years ago the operation had not been performed a dozen times in this metropolis. The excision was done in public, and many of the on-lookers were amazed at the seeming folly of the practice. Only the articular extremities of the bones were taken away. Immediately after the operation the swelling seemed well nigh as great as ever, yet see from this other cast what a change took place in a few months. I believe that there are few doubts now on this subject as regards the individual locality; yet how many will deny the doctrine as applicable elsewhere! Are there six Surgeons in England who have amputated at the knee for white swelling? Is the scrofulous swelling round the diseased ankle—are the foul ulcers and sinuses similar specimens—not even yet considered as serious, ay, insuperable, objections to amputations at that joint? And has it not been proved beyond doubt that the sinuses and ulcers close and the swelling subsides soon after the diseased articular surfaces are removed, as illustrated in such specimens as these?

In the removal of tumours which are prominent on the surface, it is a common practice to include an elliptical portion of the skin. Now, except in certain instances of cancers, where this texture is involved, and with a few other rare exceptions, I consider this to be a great error. For cysts on the scalp of, or above, the size of a walnut, this practice may be said to be the rule; yet the loose bag of scalp, if one is left, will very speedily contract to its natural dimensions, while, if an ellipsis is taken away, there is apt to result a broad white furrow. In removing an enlarged testis the custom is to take away a portion of skin too; yet the scrotum is so contractile that soon after, although only a slit may be made in the skin, it may appear less voluminous than even on the untouched side. The example of contraction of skin in this locality is well exemplified in many instances of enlarged hydroceles, where after radical cure the scrotum soon assumes its normal size. It is seldom, indeed, that I remove any portion of the skin, where it is merely stretched and attenuated over disease; but here is an example to show the disadvantage of taking away a portion of merely over-stretched skin. This large tumour was removed by Mr. Liston in the Royal Infirmary of Edinburgh, shortly before he left that city for London; and in all my experience I think I never saw a more brilliant operation. Such a proceeding was then both novel and rare, and to the present time it is the largest growth of the kind in this locality that I have ever met with. A few minutes sufficed for the operation, and the patient made a rapid recovery. But mark the history in this respect. The mouth was so drawn to one side, and the skin seemed so over-stretched, that the operator was induced to take away an oblong strip, about an inch or more in breadth,—not much, most would imagine, for the size of such a tumour as that—the stretch extending from the mouth to the temple or zygoma. The sides of the wound, from the angle of the mouth upwards, came nicely together at the time; but the skin contracted rapidly to its normal state, and union did not take place. At last there was left a large gap, extending from near the angle of the mouth up the cheek to the temporal region, ay, and the side of the nose, which exposed the tongue and lower part of the mouth as you see represented here. By the kindness of Mr. Nasmyth, of Edinburgh, I am enabled to show these illustrations. That gentleman by ingenious mechanism contrived to fill up the gap, and improve the poor woman's appearance.

When a part of the body is dead, or incurably diseased and must of necessity be removed, I am of opinion that conservative Surgery may be displayed in a variety of ways. The examples already quoted of caries, of necrosis, of diseased joints, and as regards over-stretched skin, are so palpable, that few will object to their being thus characterised. Operations on tumours of the jaws may be said to be performed to relieve distress, to obviate deformity, to give future comfort and immunity from further disease. A feature insisted upon by Professor Lizars, with regard to the operations on the upper jaw, was that the whole maxilla should be removed. Now, further experience has shown that in many instances no such extensive measure is required. The removal of the actual disease, wherever it may be, is all that is essential in such instances, provided the tumour is not malignant, for then even the removal of the whole bone is a questionable step. In these operations we can have conservatism, as regards preservation of parts and preservation of appearance, of both of which I hope to give you proof as we proceed with these lectures. In operations on the lower jaw conservatism may be, and is, displayed in a manner to which few give much heed; but I beg your particular attention to this fact,—that tumours of great size have been removed from this bone; the whole of one side thus implicated has been cut away by incisions across the bone, and the portions left have remained healthy throughout life. I myself have taken away, by a horizontal incision, as much of the lateral margin of this bone as sustained ten teeth; yet there was no return of the tumour, for which the operation had been performed. In the last of these proceedings there was conservatism, in not interfering with the base of the bone, and thereby preserving the face or chin from considerable deformity; in the first there was the like display, in not cutting away more than was necessary. How few have reckoned on the value of cases like these, as showing that in tumours of osseous tissue it is not necessary to remove the whole bone! Yet such a doctrine of destruction has got strangely, and, in my opinion, alarmingly prevalent. If a tumour shows in the tibia, even at the lower end, supposing amputation to be decided on, there are many who maintain that the operation must be performed on the thigh, for if any of the bone be left it would sure to be the seat of a return of the disease. The same doctrine is applied to the femur, and to every long bone; yet there are no just grounds for such a doctrine. Besides the instances to the contrary which I have already given, I may say that when disease does return after amputations for such tumours, it is seldom in the bone, but most generally in the soft parts, and often too at a considerable distance from the original seat of the disease. It is implied that there is a peculiar circulation in a long bone, whereby, if disease be removed by amputating one end only, the vessels will be sure ere long to work in a similar manner in the end that is left. Now, as your Professor of Human Anatomy and Surgery, I protest against this doctrine; there is positively nothing in anatomy to support it, and I can hardly admit a single instance in pathology; for where disease has shown itself in bone, after excisions or amputations, I am more disposed to think that there has been some of the original malady left than that the vessels in the remaining part have imitated the action of those concerned in the development of the original tumour.

But time warns me that I cannot dwell much longer on such topics at present. Suffice it to say that modern Surgery has given us plenty of instances to show that tumours may be taken from bones, involving the whole thickness thereof, so as to admit the preservation of a useful limb, and where disease has not returned. As examples of conservative Surgery, I may

name the varied cunning operations performed on the fingers and portions of the hand to keep that important organ as entire as possible. On the foot there are many of a similar character. The partial operations on the tarsus, by scooping out portions or removing the whole bone, such as the scaphoid are pleasing examples of this style of Surgery. Possibly in these days we have rather overlooked the vast merits of Hey's or Chopart's operations; and who can doubt the conservatism and advantages of amputation at the ankle by Syme's method, or that of Pirigoff, compared with the palpable mutilation of amputation in the leg?

But should there yet be doubt about what I mean by conservative Surgery, let me, in concluding this lecture, give you these further illustrations. Mott, Warren, Syme, and others have removed the whole of the clavicle, still preserving a useful extremity; and as further illustration of the practice of removing portions of diseased bone with good effect, I may refer to the instances recorded by Travers, Luke, South, and others of partial operations on the scapula. Here is a tumour, when entire, between ten and twelve inches in circumference, which involved the lower angle of the scapula, in removing which I sawed the bone across. Two years have nearly elapsed, and there is no appearance of return. Mr. Liston, in 1819, removed three-fourths of the scapula for a vascular tumour; the disease did return in the bone in that instance; but the operator could get no one to sanction the removal of the whole bone, with the arm, and half of the clavicle, although there was a kind of precedent for this in the instance in which Mr. Cumming, in 1808, amputated the upper extremity of the shoulder-joint, and removed the scapula immediately after. The project of removing the entire scapula, and leaving the rest of the upper extremity, was happily realised by Syme in October, 1856. The patient, about 70 years old, survived nearly two months, sufficiently long to encourage good hopes for future cases. In May, 1858, Mr. Jones, of Jersey, performed a similar operation; the whole scapula was removed, and the limb was preserved. Six years have now elapsed, and the patient lives in excellent health, with a useful limb. Here is the sketch of her figure from a photograph recently taken. In November, 1860, Mr. Syme removed the head of the right humerus, for a tumour, with the view of avoiding amputation at the shoulder-joint, which he felt would be required, if the growth were allowed to increase. A year afterwards some indications of further disease were evinced on the upper and back part of the shoulder; and so alarming did the symptoms appear that he recommended the removal of the scapula and the arm at the same time. The patient at first declined such an operation, but was not long in submitting to whatever the Surgeon might think best. The happy idea struck Mr. Syme that he might remove the scapula by itself, as with his former patient. In November, 1862, the scapula, with a portion of the clavicle, was removed by that enterprising Surgeon, the diseased mass weighing between four and five pounds; and in January of the present year, 1864, Mr. Syme reported that the patient remains in perfect health, with a wonderfully useful arm. Here is his figure, represented as but little distorted, considering the loss of scapula, the upper end of the humerus, and a portion of the clavicle. He is in the act of holding up a heavy chair with the preserved limb, to show the vigour still retained. Looking to the fact that this man had already lost [illegible] of the humerus, the case seems to me the *ne plus ultra* of conservative Surgery. Contrast it, I pray you, with those recorded of total removal of the scapula and upper extremity recorded by Cumming, Gaetani, M'Lellan, Rigaud, myself, and by Mr. Syme. Great though these may be, as regards the magnitude of each operation, the cure of disease and the saving of limb, I decidedly give the palm to the operations of Syme and Jones. Here is a sketch of my own case of removal of the scapula, after the arm had been amputated at the shoulder-joint by some rash hand before. The loss of the arm seems deplorable, and looking at the case as having occurred some fifteen years prior to the operations of Syme and Jones, the contrast between these pictures speaks volumes in favour of the progress for which I now plead; and I know of no bolder conservative feats in Surgery than those of the two gentlemen just named. Here is the cast of an anchylosed lower limb, and here is one from another similar case. You see them represented here also. The leg is bent at the knee to a right angle; the knee is swollen, and there are openings and sinuses in all directions. The history of each case told of incurable disease of the knee of several years' standing; the probe indicated an open joint, and besides bare articular extremities, a great stretch of necrosis of the femur, extending upwards four inches. The proof of extensive disease, the distortion of the limb, the state of hectic, all indicated the utmost hopelessness, excepting from amputation. The leg and foot were sound, as was the greater part of the thigh. Instead of applying the amputating knife, local measures were taken. These amounts of bones [exhibiting them] were removed, and this amount of bone from necrosis of the femur was removed at the commencement. Soon after the incurable surfaces were taken away; in other words, excision of the knee was performed, and here is a cast representing the knee, in this instance after that operation. Unfortunately this boy subsequently had disease of the hip, on the other side. Here is a cast of it, and here is the boy himself, with the leg that was preserved. He can stand upon it for hours, and walk miles daily. Of all my feats of conservatism, I know of none of which I am prouder.

ORIGINAL COMMUNICATIONS.

TWO CASES OF FRACTURE OF THE SKULL.

By JAMES DONNET, M.D.,
Staff-Surgeon Royal Naval Hospital, Lisbon.

F. H., aged 16; boy, second-class of H.M.S. *Revenge*.

On the evening of December 3, 1862, this lad attempted to fasten some washed clothes to the grating which covers the funnel-casing of the ship; in this attempt he lost his balance, and was precipitated headlong into the engine-room, a height of about thirty feet.

He was picked up in a state of insensibility, with fluttering irregular pulse, contracted pupils, and hemiplegia of right side of body; a large lacerated wound was discovered on scalp with a corresponding fracture of the skull. Another wound had been inflicted over crest of ilium. On the day following the accident he was brought to this Hospital.

4th.—On examination after admission, the right side of body is paralysed, a lacerated wound of scalp extends diagonally across left side over parietal bone; the left parietal bone is fractured and much depressed; the fracture commences about two inches posterior to coronal suture, and about three inches above squamous, and extends obliquely towards lambdoidal suture. The fracture can be seen the whole length of the wound, which is about four and a-half inches in length, and the roughness characteristic of a fracture can be followed beneath the partially raised scalp as far as the finger can reach. The depressed portion of bone, after tearing the meninges, had sunk into the cerebral substance, and had forced some of the cerebral matter outwards through the fracture. Another smaller wound extends from roots of hair over forehead for the length of two inches towards bridge of nose; a third and somewhat extensive and deep wound is found over posterior part of the crest of left ilium. Pupils generally contracted, though at times they dilate; pulse is irregular and thrilling, between 80 and 100 per minute. Frequent cries, but otherwise insensible; these cries are more severe after the act of deglutition has been performed. His left hand is raised frequently to head; breathing at times stertorous; frequent flushings of the face; passes his water in bed. An enema was ordered to relieve the bowels.

5th.—Unconscious; pupils contracted; swallows, but shrieks after he has swallowed; he does not vomit, he retains all that he swallows. At 10 o'clock a.m., with the valuable assistance Dr. William Duirs, the senior Medical Officer of the Channel Fleet at anchor in the river Tagus, the head being shaved where required, the trephine was applied, but the depressed portion—being deeply sunk and partially overlapped by the sound bone—could not effectually be raised until another portion of sound parietal bone was removed by means of Hey's saw; the elevator, after several trials, then raised the depressed portion to the level of the sound bone. The clots of blood mingled with some portions of cerebral matter were then washed away, the lips of scalp wound were brought together anteriorly by means of one suture and adhesive plaster, leaving an opening posteriorly and at the dependent part for the free exit of the matter. Cold lotion was then applied to head. 5 p.m.—His cries continue, the act of deglutition increases their frequency. Pulse irregular, at times bounding, at others small. Has swallowed some fowl broth. Enema administered yesterday having produced no effect, is to-day repeated; some

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fæcal matter followed its administration. After the operation the right forearm gradually flexed itself upon arm, and required some force to extend it, the flexion returning on removal of extending power. Left side of mouth drawn downwards.

6th.—Unconscious all day; cries as if in pain after swallowing. Pupils generally contracted, though they dilate at times; pulse varies, beating at times at the rate of 72, at others at the rate of 104 per minute. The left side of mouth is drawn down more than it was yesterday. There is less stertor to-day. Some cerebral matter, with shreds of dura mater, was washed away whilst dressing the wound of scalp. The wound over crest of ilium discharges freely, healthily, and abundantly.

7th.—Has been very restless throughout the night, crying frequently; his cry is like that of one in great pain; his face flushes during his cry. Has intervals of quiet between these cries; his appearance is then of one in a sound sleep, breathing quietly and normally. The stertorous breathing has become less frequent. He raises his hand as if to remove some cause of uneasiness, and, if not prevented, will tear the dressings from his head and loins. There is, consequently, consciousness of pain in these parts. The face, less contracted than it was yesterday, has an expression of suffering; left side of mouth less drawn. Herpes labialis has broken out on lips. Right leg motionless; right forearm flexed on arm. Swallows some fowl broth, and licks his lips after he has swallowed it. The bowels have been relieved by enema; has made water freely, though passed in bed.

8th.—Is very restless, and attempts to get out of bed; right arm is flexed upon arm; the toes of paralysed foot move when the sole is tickled; the left hand grasps objects firmly. Pupils contract and dilate alternately; feet warm; mouth becoming more natural.

9th.—Still restless. Pulse 80, regular. Opens his eyes, and for a short space of time looks about him with a passing expression of consciousness. Embraces with lips the tube of feeding cup. 8 p.m.—Very restless all day; frequent cries; left side of body moves convulsively; pupils dilate and contract frequently, the interval between dilatation and contraction being short. Face still flushes. Takes his broth, and is eased by cold applications to his head.

10th.—Lies quiet. Pulse 84; respiration 20; breathing natural. He seems like one in a deep, sound, natural sleep. 5 p.m.—Slept the greater part of the day; awoke several times, and then took beef-tea and milk with apparent relish. Bowels kept open by enemata. Has been obliged to be changed each time he wets his bed.

11th.—This morning is quietly sleeping; the flushings of face are decreasing. When awake, he cried out "Oh, my!" "Oh, Lord!"

13th.—Has not cried after swallowing since December 7. Has said several words with meaning. Left side of face natural; right leg has some slight motion; right arm continues flexed; is conscious of those around him; complains of his head. The wounds of head and loins discharge, though the discharge is decreasing; that from the wound in head is fetid. The pulsations of the brain are perceptible, sometimes more distinct than at others; at each pulsation the discharge from the wound is urged upwards.

15th.—Was very restless during the middle watch; face flushed several times. This morning is more composed; pulse, 74; breathing natural; discharge from wounds healthy; passes his water sometimes in bed, though he is aware of so doing, but cannot help himself; asks for urinal sometimes; the forearm is no longer flexed upon arm, but lies quietly by his side.

18th.—Has slept well; the discharge from both head and loins continues, though decreasing in quantity. He complains to-day of general itchiness of skin.

19th.—The skin, having been washed, has lost its itchiness; right arm and leg are motionless; when the sole of paralysed foot is tickled the toes of this foot move; he still wets his bed.

21st.—He complains to-day of being cold along the paralysed side; there is slight motion of thumb of right hand.

22nd.—Sleeps well; some motion to-day of fingers of right hand; is perfectly collected; his eyes are bright and full of intelligence.

24th.—Is able to move his right hand towards head.

28th.—To-day is able to move right leg and to flex the corresponding knee; the motions of upper limb are becoming freer daily; the tact of this hand is imperfect; the boy cannot tell the number of fingers of another's hand placed within his own; has been sitting up in an arm-chair; his appetite is good; bowels are relieved only by injections; the wounds of scalp and crest of ilium are doing well.

January 16, 1863.—The motions of leg and arm are daily becoming freer; he is able to walk without much assistance; uses his right hand, though imperfectly; had a slight chill, followed by fever; the wound over crest of ilium looks angry; fomentations, followed by poultices, ordered to part.

17th.—Much discharge from wound in back; swelling and inflammation decreased.

April 7.—He has improved greatly since last report; wound of scalp still discharges, though in much less quantity; several spicula of bone have come away from wound; to-day a spiculum of bone, upwards of an inch in length, was taken away from beneath scalp; appetite good; enjoys his food; sleeps well, undisturbed by dreams; his intelligence is untouched.

August 6.—The wound of scalp is much contracted, though not healed; several small spicula of bone have at long intervals come away; although he moves about freely, the right side of body has not the same power as the left; he complains of some numbness of the right hand.

October 7.—Has been progressing favourably; he moves about readily; the wound of scalp still discharges, the quantity daily decreasing; the numbness of the right hand has not yet left him; he grasps less firmly with this hand.

February 26, 1864.—The lad is now, to all appearance, perfectly re-established. His intelligence is perfect; he is quick, ready, and willing to do anything to assist where required; when questioned, his answers are ready and intelligent; his memory and judgment are good, and his imagination lively; the numbness of the right hand has entirely left him; the pulsations of the brain are distinctly perceptible beneath the scalp, the wound of which is almost healed. There is, however, a slight difference between the muscular grasp of the right and that of the left hand. As the Channel Fleet takes its departure to-morrow, he is discharged from this Hospital for a passage to England.

This case is an interesting one, from the perfect recovery of this lad's faculties after the severe injuries he had sustained. From the extent of the wound of scalp, from the nature of the fracture, and depression of the bone, and the laceration of the meninges, and of the cerebrum itself, with the encephalitis threatening upon such injuries, the prognosis was an unfavourable one. The piercing cries he gave when in an unconscious state, and more especially their frequency and aggravation after the act of deglutition, denoted irritation of the medulla oblongata, and assisted in auguring ill for the issue. Most fortunately, his youth and the natural vigour of his constitution were in his favour, and the result proved a happy one.

The trephine was applied, and depressed bone raised thirty-five hours after the accident. The first sure token of consciousness occurred on the sixth day after the operation, after which there was progressive improvement, and the muscles of impaired side of body gradually regained their functions in the order generally observed.

The operation of raising the depressed portion of bone was followed by contracture of the right forearm. This, probably, was due to some reflex action exerting its influence upon some parts of the base of the brain and created during the operation of raising the bone. This seems probable, as the contracture followed shortly upon the operation, and vanished with the amelioration of the symptoms and the improvement of the patient's state.

Royal Naval Hospital, Lisbon.

(To be continued.)

TREATMENT OF ITCH AT ST. LOUIS.—The treatment employed by Dr. Hardy consists, first, in friction for half-an-hour of the whole body, except the head, by means of black soap, and which is continued by the patient himself during an hour while in a tepid bath. When he leaves the bath he is submitted to a rapid and general friction with the following ointment:—Lard 64, sulphur 20, subcarbonate of potass and water of each 8 parts. The patient then dresses himself without wiping off the ointment, as the contact of this is necessary for the destruction of any remaining acari, and of any that might remain in the garments. Of 37,429 persons so treated in 1862-62, only 535 required a second application. —*Gaz. des Hop.*, No. 67.

THE FRENCH POISONING CASE.—La Pommerais was guillotined on Friday, June 10. He made no public confession of guilt.

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CURE OF INGUINAL HERNIA IN CHILDREN.

By REDFERN DAVIES, M.R.C.S.,
Surgeon to the Children's Hospital, Birmingham.

An opening in the abdominal walls, which would naturally have become closed, may to an almost certainty be made so, by continuous and well-directed pressure. Thus, ruptures occurring at the time of birth or shortly afterwards, may be generally cured by constantly wearing a well-fitting truss.

This cure is effected by the truss pad keeping within the cavity its natural contents, occasioning a contraction of the abnormal outlet, in accordance with the general law by which all hollow bodies adapt themselves to their contents; and so the closure of those parts is effected which were intended by nature only as temporary means of communication, but from an arrest of development have become permanently so; at the same time there is set up a slow inflammation and thickening both of the empty sac and of the surrounding cellular tissue, which assists and accelerates the natural contraction of the neck, and the separation of the sac from the peritoneum.

The condition of the parts as observed by M. Cloquet, after an ample examination of the dead bodies of persons who had been affected with rupture, and cured by wearing a truss, is, that the mouth of the sac wrinkles, contracts, is thrown into folds, and lastly becomes obliterated. These folds, which he calls "stigmata of the hernial sac," (Laurence) are arranged in a radiated manner, gradually losing themselves in the surrounding peritoneal tissue, their opaque whitish appearance alone distinguishing them from wounds.

In cases, however, where a truss has been for some time worn, and failed to cure the rupture, or when the wearing of a truss has been attended with pain and therefore discontinued, I have endeavoured radically to cure the rupture by operation. In the years 1858, 1859, and 1860, in ten cases of inguinal hernia in children under 8 years of age, I used either the plan recommended by Wützer, or a method that I detailed in a pamphlet published about that time, consisting in an attempt to invaginate a portion of the scrotum into the abnormal aperture. Of these cases nine are now quite sound; in the case that ultimately failed (though at the time appearing cured), partly from the occurrence shortly after operation of scrofulous disease of the vertebræ and lumbar abscesses, and partly from not wearing a truss, the rupture was gradually forced down again by a continuous cough.(a)

Mr. John Wood, for recent ruptures and for those occurring in children, operates by a couple of rectangular pins, whose transit along the interior of the sac sets up in it a due amount of adhesive inflammation which entirely obliterates its cavity. The description of his operation is so ingenious that I wish I could fancy it was correct. He says:—

"In this operation the conjoined tendon and the internal pillar are transfixed by a pin first applied, and the outer pillar is transfixed and included by the second. The sac is transfixed by both the pins, which lie for some distance in its interior. The whole of these parts are twisted together by the revolution of the one pin on the axis of the other, so that the posterior wall being drawn forward, and the anterior backward, the hernial canal is firmly closed, tightly embracing the cord which lies behind and between the pins, but without being included by them."—*Vide* Wood on "Rupture," p. 135.

The plan that I now adopt and, from its equal efficacy and much greater simplicity, prefer, is thus:—

Passing the finger into the inguinal canal as deeply as requisite, I carry upon it a strong and well-curved needle, and thrust it through the internal and conjoined tendon. The eye of the needle is then thread with a common ligature and withdrawn. A similar proceeding is done on the outer pillar, the needle entering and emerging on both occasions at the same place.

The purpose of this ligature is to easily introduce into the parts through which it has passed a copper wire, which should be of about No. 20, freshly annealed, and having a small hole near each extremity for its attachment to the ligature. By pulling upon the ends of the wire when it has been thus passed, some of the scrotal fascia is easily separated from the adjacent parts, and drawn into the inguinal canal; at the same time the edges of the ring are approximated as much as possible. Twisting one wire upon the other over a compress of lint, the operation is completed. None of the integument of the scrotum is invaginated, which, save for the needle puncture at about the middle, looks as usual. In a few days the wire is untwisted and easily withdrawn, it not being intended to remain permanently, as is done by Professor Chisholm, of Charleston, America, who appears only to convert a hernia into a bubonocele, and that, probably, a temporary one.

A truss is applied in a day or so, when the child may go about as usual.

Throughout there is, or should be, little or no pain or discomfort of any kind, much less any ulceration or suppurative action in the parts.

After a little time the fundus of the hernia becomes obliterated and hardened into a solid mass of effusion within the scrotum, while the superficial ring is hardly able to be recognised.

A case upon which I had operated with Mr. Wood's pins, two months afterwards died from an attack of bronchitis. Upon examination of the parts, there was felt ascending from the bottom of the scrotum a linear mass of thickened tissue, which, upon dissection, was found to consist of the walls of the hernial sac united together. The internal ring was almost naturally closed, permitting the tip of the little finger to imbed itself for a distance of about one-eighth of an inch, resembling a well-marked fossa.

The principle which pervades all methods of curative treatment in children's ruptures, whether by wearing a truss or operation, is the same, and consists in the endeavour to excite in the inguinal canal a due amount of lymph or plastic matter so as to block it up, and at the same time to induce its walls to unite together. For my own part, I put an almost unbounded faith in the curative powers in children's ruptures of a properly fitting truss, continually worn, and regard an operation only as an adjunct to treatment by pressure, rendering it more certain and speedy. I entirely agree with Mr. Wood that the simplicity and freedom from danger of the operation—although I have had peritonitis in both kinds of treatment, truss and operation—constitutes a strong recommendation for its adoption. I do not present my recent experiences, because—though at present, and whilst wearing a truss, they seem cured—a sufficient time has not elapsed to pronounce positively upon them.

(a) As many of these cases as I could procure were shown at a recent meeting of the Midland Medical Society.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

CASES OF TYPHOID AND TYPHUS FEVER, ESPECIALLY WITH REFERENCE TO THE CONDITION OF THE URINE.

(Communicated by Wm. Dunnett Spanton, late Resident Obstetric Assistant to the Middlesex Hospital; House-Surgeon to the North Staffordshire Infirmary.)

(Continued from page 590.)

TABLES OF THE CONDITION OF THE URINE IN THE FOREGOING CASES.

Table I.—Typhoid Fever (Case 1.—R. T.).

Date.	Day of Disease.	Quantity of Urine in 24 hours.	Specific Gravity.	Solids in 1000 grs.	Solids in 24 hours.	Urea in 1000 grs.	Urea in 24 hours.	Albumen.	Reaction.	Colour, etc.
1861.		ozs.		grs.	grs.	grs.	grs.			
Nov. 20	11th (?)	—	1022	51·26	—	23·28	—	1-20th	vry. acid	Dark orange; chlorides absent.
,, 21	12th	26	1023	53·59	668·80	31·04	387·35	none	acid	Dark orange; chlorides, a trace.
,, 23	14th	25	1024	55·92	671·05	33·00	396·00	none	acid	Dark orange.
,, 25	16th	27	1025	58·25	755·15	33·75	435·50	trace	acid	
,, 26	17th	—	1027	62·90	—	25·40	—	trace	acid	Dark orange.
,, 27	18th	30	1027	62·90	905·76	22·30	321·10	—	acid	Dark orange, clear.
,, 28	19th	20	1028	65·24	626·30	16·78	161·08	trace	acid	
,, 29	20th	20	1028	65·24	626·30	18·50	177·60	trace	acid	Amber, clear; chlorides abundant.
Dec. 2	23rd	26	1025	58·25	736·28	16·00	199·68	none	acid	
,, 5	25th	18	1024	55·92	483·15	17·18	148·45	none	acid	Amber, clear.

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Table II.—Typhoid Fever (Case 2.—T. B.).

Date.	Day of Disease.	Quantity of Urine in 24 hours.	Specific Gravity.	Solids in 1000 grs.	Solids in 24 hours.	Urea in 1000 grs.	Urea in 24 hours.	Albumen.	Reaction.	Colour, etc.
1861.		ozs.		grs.	grs.	grs.	grs.			
Nov. 19	4th	—	1026	60·58	—	38·85	—	none	acid	Amber, thick with urates.
,, 20	5th	26	1025	58·25	736·28	46·56	581·05	none	acid	Orange, thick.
,, 23	8th	25	1027	62·90	754·80	34·20	410·40	none	acid	Light amber.
,, 25	10th	29	1018	41·94	648·05	27·00	375·00	none	acid	Light amber.
,, 28	13th	38	1010	23·30	424·99	20·04	365·52	none	acid	Straw, clear.
Dec. 5	20th	31	1026	60·58	988·66	20·28	331·06	none	acid	Straw, clear.

Table III.—Typhoid Fever (Case 3.—S. C.).

Date.	Day of Disease.	Quantity of Urine in 24 hours.	Specific Gravity.	Solids in 1000 grs.	Solids in 24 hours.	Urea in 1000 grs.	Urea in 24 hours.	Albumen.	Reaction.	Colour, etc.
1862.		ozs.		grs.	grs.	grs.	grs.			
Jan. 1	22nd	10	1025	58·25	279·60	33·55	161·05	1-20th	acid	Dark amber, clear; phosphates abundant.
,, 9	30th	20	1026	60·58	581·56	22·30	214·10	none	acid	Dark, clear; no phosphates.
,, 16	37th	13	1020	46·60	290·78	16·80	105·05	none	acid	Dark, turbid.
,, 18	39th	—	1021	48·93	—	—	—	none	acid	Dark, turbid.
,, 27	48th	16	1020	46·60	357·88	13·76	105·67	none	acid	Amber, clear.
Feb. 20	72nd	20	1015	34·95	335·50	12·42	119·25	none	acid	Straw, clear.

Table IV.—Typhus Fever (Case 5.—Thomas R.).

Date.	Day of Disease.	Quantity of Urine in 24 hours.	Specific Gravity.	Solids in 1000 grs.	Solids in 24 hours.	Urea in 1000 grs.	Urea in 24 hours.	Albumen.	Reaction.	Colour, etc.
1862.		ozs.		grs.	grs.	grs.	grs.			
Feb. 13	8th	7 bowls open.	1022	51·26	—	30·95	—	1-20th	acid	Amber, clear.
,, 14	9th	—	1018	41·94	—	—	—	1-25th	acid	Amber, clear.
,, 15	10th	16	1019	44·25	339·84	28·50	218·88	trace	acid	Amber, clear.
,, 16	11th	18	1015	34·95	301·96	27·92	241·22	trace	acid	Amber, clear.
,, 17	12th	17	1017	39·61	323·20	25·32	206·62	trace	acid	Amber, turbid, with urates.
,, 18	13th	33	1018	41·94	664·32	14·97	237·20	trace	acid	Amber, turbid, with urates.
,, 19	14th	chiefy at stool.	1020	46·60	—	17·52	—	none	acid	Amber, clear.
,, 20	15th	chiefy at stool.	1017	39·61	—	18·08	—	none	acid	Amber, clear.
,, 22	17th	30	1018	41·94	559·53	32·30	565·12	none	acid	Light amber, clear.
,, 23	18th	32	1018	41·94	644·19	30·00	460·08	none	acid	Light amber, clear.
Mar. 2	25th	60	1010	23·30	671·04	9·30	267·85	none	acid	Straw, clear.

Table V.—Typhus Fever (Case 6.—Thomas S.).

Date.	Day of Disease.	Quantity of Urine in 24 hours.	Specific Gravity.	Solids in 1000 grs.	Solids in 24 hours.	Urea in 1000 grs.	Urea in 24 hours.	Albumen.	Reaction.	Colour, etc.
1862.		ozs.		grs.	grs.	grs.	grs.			
Feb. 18	11th	24	1018	41·94	362·36	28·40	327·15	1-30th	acid	Amber, thick with urates.
,, 19	12th	20	1020	46·68	448·12	32·20	309·15	none	acid	Amber, clear.
,, 20	13th	24	1020	46·68	537·75	29·72	342·35	none	acid	Orange, turbid
,, 21	14th	17 bowls open.	1019	44·27	—	28·40	—	none	acid	Orange, turbid
,, 22	15th	38	1017	39·61	636·62	19·92	303·34	none	acid	Amber, clear.
,, 23	16th	90	1011	25·63	907·20	9·04	390·52	none	acid	Amber, clear.
Mar. 2	23rd	66	1012	27·96	885·75	11·88	376·35	none	acid	Amber, clear.

Remarks.—The following conclusions may be derived from the examination of the urine in the cases which I have here related. The water is diminished in amount, and this diminution is most marked during the first week. It varied in each of the cases considerably, depending in some degree upon the amount of diarrhœa present. The reaction of the urine in every case was acid. The specific gravity was high in each case, the highest being 1028. In typhus there was throughout a lower specific gravity than in the cases of typhoid. During convalescence the specific gravity lowers. Dr. Parkes says that this occurs before there is any marked increase in the amount of water. The urea was in every case during the active stage of the fever much increased. In Case 1 the greatest increase was during the second week, in Case 2 during the first week. It seems as if the largest amount of urea was present, relatively and absolutely, while the fever was most severe (whenever that might be), differing, of course, in different cases, so that no definite rule as to days can be fixed with regard to it. Simon and other authors affirm that the urea is diminished in amount, but numerous others state the contrary; and there can be little doubt that the increase is considerable. The largest amount in one day in the cases of typhoid was 581· grains, which formed more than three-fourths of the whole solid matter in the urine. The chlorides in Case 5 were altogether absent, and in a patient of Dr. Thompson's they were almost so. A. Vogel, Dr. Parkes, and others attribute this diminution to the spare diet and to the passing off of the chloride in some cases by the bowels and skin. Howitz has advocated the same view, and states that, apart from pneumonia, febrile conditions have no influence on the chloride of sodium. This statement can hardly be strictly correct, for we find the chlorides absent sometimes in cases of rheumatism without any pneumonia. The spare diet cannot be urged as an argument in the case of R. T. (Case 1), nor can sweating, for the patient took large quantities of nitrogenous food, and had at the same time a hot, dry skin: moreover, there was very little diarrhœa. Dr. Parkes seems to think that the chlorides may be retained in the system, as in pneumonia. The uric acid was increased in every case, being thrown down abundantly when acid was added to the urine. The amount was not determined. The sulphates in one case were diminished. It is usual, according to Dr. Parkes, to find them increased. There was in all the cases an increase in the amount of pigment, probably from an increase of normal pigment, as no evidence of any other was obtained. The urates were found largely increased at the time of convalescence in three cases; in Case 2, before that period. Albumen was present in two of the four cases of typhoid, and in both cases of typhus. It occurred in 33·33 per cent. of Dr. Parkes's cases. In no case could any casts be found, although the urine was several times carefully examined for them. In a patient of Dr. Thompson's there were abundant fibrinous and granular casts, but it is probable that the kidney lesion had existed previously. Albumen seems to be far more common, and more abundant when present, in typhus fever. Its presence appears to be owing to some congestion of the kidneys from the existence of some poison in the blood; but whether any peculiar condition of kidney is produced seems uncertain. Most probably not, or we should not find the evidences of kidney lesion so transitory in their character. Although the results here described are drawn from too scanty data to be of any great value, yet they are interesting, inasmuch as they confirm to some extent the observations of others.

TURPENTINE IN HOSPITAL GANGRENE. — Surgeon Hachenberg reports that he has derived great benefit from the application of turpentine every three hours in Hospital gangrene, first cleansing the wound with warm water and any of the ordinary disinfectants. Fistulous openings are well injected with it, and when fasciæ are in the way of effectual application they are dissected out. Little or no pain is caused even by complete saturation, care being taken to prevent the fluid running on to the adjoining skin. In a few days the wound cleanses, the sloughs come away, and the tendency to granulation is active, while all the constitutional symptoms undergo corresponding amendment. The properties which render it so valuable an agent are its permeability, its solvent action on the broken-down adipose tissue, its local alterative, stimulating, and sedative effects, its antizymotic qualities and its antiseptic and styptic action. It produces no eschar, as do bromine and some other substances, which in consequence often cause the retention of the vitiated secretions of the wound.—*American Medical Times*, May 28.

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SATURDAY, JUNE 18.

THE PROPOSED NEW SCOTTISH STATISTICAL CLASSIFICATION.

In Edinburgh, Dr. Stark occupies a post in connection with the General Registry of Births and Deaths similar to that held by Dr. Farr in London; and, in virtue of his position as Superintendent of the Department of Medical Statistics, he has proposed a scheme on which the deaths registered in Scotland are to be classified. Whether this new scheme has been adopted by the Registrar-General for Scotland we do not quite understand. We hope not. We think it a pity that Dr. Stark and Dr. Farr do not agree in their views as to what sort of classification should be used in the offices to which they are respectively attached. We think it a pity that any impediment should be thrown in the way of comparison between the English and Scottish tables of mortality; and we think that, even at the sacrifice of his own views, Dr. Stark would have done better had he adopted the English classification of the causes of death until such time as a better scheme might issue from the joint labours of his English and Irish colleagues and himself, together with those of the heads of the Medical Departments of the Army and Navy. Dr. Stark only adds another to the many failures which have been made in this direction. We are not wedded to Dr. Farr's classification. In our eyes it possesses many and serious defects, but we must say that Dr. Stark's allegation, that it has been "drawn up on no fixed principles," and that it is therefore "unimproveable," and his insinuation that it "panders" to "Medical theory, which may be popular to-day and be refuted to-morrow," is not one of them. We are not going to fight through thick and thin for Dr. Farr's scheme, but we think that Dr. Stark might have expressed his opinion of it in less forcible language. It is a classification which has its undoubted uses; and although confessedly far from perfect, cannot fairly be taxed with "being drawn up on no fixed principles." We might retort upon Dr. Stark, but forbear. When we have said all that we have to say upon his scheme, our readers may form their own opinion as to whether our forbearance is the result of want of provocation. For the present, however, we have to do with Dr. Farr; and we affirm that whatever faults his classification exhibits, it is not the hap-hazard grouping of diseases that Dr. Stark would lead us to imagine it. It is true that the first English classification has been modified of late years, but this modification mainly consisted in a process of concentration, reducing the number of primary classes, and making some, which were formerly thus arranged, into subordinate groups. But the principle of the classification remains the same. What this principle is may be found by referring to a letter from Dr. Farr in the First Report of the Registrar-General for England, and to this we would refer his critic.

Dr. Stark's proposed arrangement embraces sixteen classes. 1. Fevers; 2. Diseases of the brain, etc.; 3. Diseases of the heart and organs of circulation; 4. Diseases of organs of respiration; 5. Diseases of organs of digestion; 6. Diseases of urinary organs; 7. Diseases of organs of generation; 8. Diseases of organs of locomotion; 9. Diseases of skin and cellular tissue; 10. Diseases of uncertain seat; 11. Malformation; 12. Debility at birth and premature birth; 13. Old age; 14. Sudden deaths; 15. Violent or unnatural deaths; 16. Causes not specified. He tells us that this is a classification which *is* drawn up on a "clear and intelligible principle," "panders to no Medical theory which may be fashionable to-day, but refuted and abandoned to-morrow;" and, "therefore," that it is one which, once adopted, "would never hereafter require to be amended or departed from." The fixed principles referred to are that every death is tabulated under the *primary cause* or *affection* which led to the death, and that, so far as practicable, every disease causing death is tabulated under the *organ of the body* which was primarily or chiefly affected. He claims for his scheme that it is one that can be understood by the masses of mankind, as well as by the Medical profession. We say that the mass of mankind, who in their ignorance must be guided by professional opinion, can quite as readily comprehend the English arrangement; while, in regard to accuracy, there are quite as many faults, to our mind, and rather more, in Dr. Stark's classification as in Dr. Farr's. Such as have studied Buckle's "History of Civilisation" will perhaps recognise in the two classifications an illustration of the opposite philosophica tendencies of the Scottish and English mind. And as respects taking Medical opinion as a guide to statistical classification, we must confess we do not see how some reference to it is to be avoided, and the only alternatives which occur to our mind are to adopt the opinions of the day, the opinions of the past, or the possible opinions of the future. Not being gifted with "second sight," the two former are alone available to us Southerners, and of these we must give credit to Dr. Farr for the selection he has made. But apart from our objection that Dr. Stark's movement is retrograde, we assert that it is one which it is impracticable to carry out—that Dr. Stark himself could not carry it out; has not done so. In his attempt to render his arrangement popular, he has rendered it confused. Let us give some few illustrations. In his very first class of "Fevers" he fails in carrying out his principle. He defines them as "a class of diseases affecting every organ of the body simultaneously." He includes in it diphtheria, on account of its pathological relation to scarlatina, and he excludes cynanche maligna and C tonsillaris (placing them among diseases of the digestive organs), although he holds both to be "undoubted forms of scarlatina"! Defined also as Dr. Stark defines it, such a class should include all the acute forms of inflammation, and notably acute rheumatism, pneumonia, and influenza, the former being actually placed among "Diseases of uncertain seat." The last-named class is that which, perhaps, as flagrantly as any transgresses against the "principle." Is gout a disease of uncertain seat? Are purpura and scurvy diseases of uncertain seat? Is "fistula" (in its popular signification) a disease of uncertain seat? Is dropsy a disease of uncertain seat? Why, if the organ primarily or chiefly affected is that under which a disease is to be registered, why is "the blood" to be ignored? Is it because the public generally never heard of "blood disease" or "blood poisoning"? Again, we find diarrhœa, dysentery, and cholera grouped in the fifth class with hernia, worms, and tabes mesenterica; childbirth among the diseases (?) of the organs of generation, and also metria, *both* of them as primary affections; and in the same group are the syphilitic diseases. Where would Dr. Stark place syphilitic lepra? Erysipelas is divorced from the febrile class, and grouped with non-febrile diseases of the skin.

And what, lastly, is to be said of a classification which takes no cognisance whatever of the large and important class of tubercular affections, but counts deaths from phthisis among those from bronchitis and whooping-cough, and

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scrofula with cancer, hæmorrhage, and gout? What practical purpose, Medical or non-Medical, could possibly be served by such an arrangement? And after all this, we are told complacently that the classification is one which will "never hereafter require to be amended." For ourselves, we would far prefer a simple alphabetical arrangement with no feature of classification at all. There is, however, one good point in Dr. Stark's scheme, which, if any agreement should be come to with other statistical departments, we should like to see adopted, and this is that he includes poisoned bites and wounds, hydrophobia, alcoholic poisoning, starvation, and want of breast-milk as causes of death among the "Violent or unnatural deaths." It would be strange, indeed, if there were no redeeming feature.

THE WEEK.

THE LATE MR. CARTWRIGHT, F.R.S.

(From a Correspondent.)

ALTHOUGH we believe that the late Mr. Cartwright was never actually a member of the Medical Profession, yet he was so successful a cultivator of one of its auxiliary branches, and deserved so well of us by his magnificent hospitality, that we cannot allow him to pass away into the ranks of the departed without one word of commemoration. Even the youngest members of our Profession must have heard of Cartwright, as the most celebrated Dentist of his day, whose doors were besieged by crowds of the aristocracy, and who realised a princely fortune. His fortune, too, was not merely saved, but enjoyed. His hospitalities were on the most princely scale. It is well-known that when Paginini, the celebrated violinist, was in London, thirty years ago, creating a *furore* amongst fashionable *virtuosi*, Cartwright issued cards for an ordinary dinner party. When the guests arrived at the well-known door in Burlington-street, the porter announced, with his master's compliments, that an accident had happened in the kitchen, so that he must take the liberty of asking them to come on to the Clarendon close by, where he proposed to receive them. On they went accordingly, and then were conscious of the friendly artifice of their entertainer, who had taken this method of gathering together a much larger number of guests than his own dining-room could accommodate, and then, after a most sumptuous entertainment, produced Paganini, who gave them a private exhibition of his musical skill. There is a moral of a very homely sort to be drawn from Mr. Cartwright's life, which we venture to impress upon our younger readers. Some young men are apt to fancy that a fine figure, and flattering tongue, and ostentatious *ménage* may enable them to "get hold of the aristocracy," and make fortunes by adulation and other arts of humbug. That which led to Mr. Cartwright's rise and success was the direct contrary. He was a plain-looking, quiet man, who made his own way by simple means; he used the greatest industry in his profession; he strove to do everything in the best way; he got the credit of doing things better than any one else (and there could be no mistake where teeth were concerned); then, without running after success, success came to him. The writer of this notice well remembers that when a student, some years ago, he happened to be breakfasting with a well-known Professor, who, in the course of talk, said, "I'll tell you something that should be a model to you. Last night we elected Cartwright, the dentist, an F.R.S. There was a kind of row about it; some men said he ought not to be elected, but most of us felt that he was a very good fellow, and we carried him; and look here, here is his card; he called on me this morning before eight, and left his card in acknowledgment. That is the way to get on in the world. Be prompt and punctilious in acknowledging the slightest benefits. This shows you how Cartwright got on." So said our Mentor, who has now long since preceded us into the region of shadows. We bear witness to the benefits of Cartwright's splendid entertainments; how they brought men together, smoothed off asperities, cemented friendships, and gave some poor struggling scientific men a glimpse of the brighter side of life. When the recording angel sums up, and strikes the balance, we are sure that he will remember to Cartwright's credit that to be "given to hospitality" was pronounced on the highest authority to be a virtue even in a bishop.

EARLY MAN AT THE BRITISH MUSEUM.

IN a case at the further end of the great palæontological gallery of the British Museum are now displayed a series of fossils, human and animal, which constitute perhaps the most important addition to the *data* for an early history of man which this country has acquired. They are a portion of the spoils of the cavern of Bruniquel, a cave situated in the department of Tarn and Garonne, in France, which have been purchased by Professor Owen for the trustees of the National Museum at the cost of £1000. These remains have already been made the subject of one paper by Professor Owen, which was read at the last meeting of the Royal Society, and it is understood that they, with the remainder of the specimens not yet exhibited, will furnish matter for a series of communications to the Society by the same accomplished palæontologist. Without endeavouring in any way to forestall information which will in due time be given to the scientific world, we would call the attention of our readers to the specimens now exhibited in the Museum. The human remains comprise a large portion of the hinder and middle part of a skull imbedded in *breccia* from five feet below the stalagmite floor of the cavern; a large portion of the occipital bone of another skull similarly imbedded; a tolerably perfect calvarium; numerous pieces of parietal and other cranial bones, some of which, from their thinness, have evidently belonged to early childhood; portions of jaw bones of adults and children—in one adult upper jaw the grinding teeth are seen to be much worn from within outwards—there is also the lower jaw of a child, in which the first molars are still retained in their bony cells. These remains, as far as we have been able to observe them, do not present any remarkable peculiarities, and give no evidence of anything like a transitional or progressive stage of development. The skulls appear to us rather to belong to the long-headed type, and to be of moderate capacity. There is no evidence of any unusual development of the frontal sinuses. Besides the cranial specimens, there are remains of long bones and ribs embedded in the same deposit from below the stalagmite. But these relics of man would in themselves be of only ordinary interest were it not for the works of art and animal remains with which they are now found associated, and with which they are undoubtedly contemporaneous. The latter comprise quantities of the antlers of the extinct reindeer (*Tarandus Priscus*). Many of these are marked with tools, some are in sections, and have been evidently used as implements. There are also the upper and lower jaws of the same variety of reindeer, which there can be no doubt was as useful to the ancient cave-men as his successor is to the Laplanders of our own times. There are also the remains of an extinct deer (*Cervus Palmulatus*); horn cores and jaw bones of a large chamois (*Rupicapra Christolii*); the upper jaw and horn cores of the bouquetin (*Ibex Cevennarum*); remains of the wild horse (*Equus Caballus*); and portions of the upper and lower jaws of the great extinct bull (*Bos Primigenius*). Besides these, there are bones of the fox, wolf, red deer, hare, buzzard, partridge, raven, eagle, and salmon. The works of art, a portion of which are exhibited in a case in the British gallery, consist of worked flints, many of them arrow-heads, which appear to us to be far more regularly cut than the rude flint implements found by M. de Perthes in the drift at Abbeville. There are also pieces of bone ornamented with rude patterns, doubtless engraved with flint tools, and some bone needles, with the eyes in a perfect state of preservation, which look as if they might be used now for coarse work. It is useless at present to speculate as to the age of these remains; whatever it be it must be very remote, but certainly in them we have good evidence that the contem-

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poraries of the extinct reindeer and gigantic bull were not ignorant of some of the arts of life; they were not even naked savages. Geology hitherto has furnished absolutely no evidence that man was ever anything essentially different from what we now find him.

PROPOSED MONUMENT TO SIR HUMPHRY DAVY AT PENZANCE.

It is a gratifying thing to see a distinguished member of our Profession at the head of a movement for perpetuating the memory of one of the most illustrious philosophers who has flourished since the rise of physical science. On Friday, June 10, Mr. Coulson, Senior Surgeon to St. Mary's Hospital, presided at a public meeting held for the above purpose at Penzance, and contributed by far the most interesting portion of the proceedings in the form of an admirable *resumé* of Sir Humphry Davy's life and labours, which we hope to see published in a separate form. Mr. Coulson laid before his hearers in agreeable review the philosopher's early life; his poetic tendencies; his apprenticeship to the Medical Profession; his intimacy with Dr. Beddoes, which led to the discovery of the respirable and intoxicating nature of nitrous oxide; his promotion to the Royal Institution, where he made those prodigious discoveries of the metallic bases of the earths and alkalies, than which no greater step has been made since; his safety-lamp, his discovery of chlorine and iodine, his "consolations," his fishing, his family history, and his death. If a statue be not erected to such a man in his birthplace, the disgrace lies at the door of his fellow citizens, unconscious of the honour that belongs to them. We hope that a monument durable as his native granite will show how the Cornish men value the privilege of having had so great a light of the world amongst them. If there be anything we regret, it is the attempt to add one of those mockeries of mediæval charity, an *almshouse*, to the monument of a philosopher. Anything more absurb and incongruous than such an intermixture can scarcely be conceived. Mr. Coulson was singularly unlucky when he mentioned Greenwich Hospital; and said that the names of William and Mary were gratefully remembered in its noble halls by many gallant veterans, etc., etc. He ought to have known that not even the almshouse department of the Royal Medical Benevolent College was worse devised, and more difficult to manage, than is Greenwich Hospital. The almshouse system is an unnatural, barbarous mode of relieving, with fuss, and ostentation, and Pharisaism, a few persons who were far better left to wear out the remainder of their days with their own family and friends, aided by such small benefactions as may be given them quietly and unobtrusively. We have heard that a right reverend prelate (whose experience of the almshouses and colleges within his own cathedral city for the relief of decayed clergymen and their families must be anything but agreeable) expressed his surprise that a modern and practical and common-sense set of men, such as members of our Profession ought to be, should be guilty of such an expensive absurdity as the gathering decayed and disappointed veterans into a mediæval quasi-monastery, instead of letting them live quietly amongst their families on the more liberal income which a society, unburdened with Gothic buildings, could afford to give them.

PARLIAMENTARY.

On Thursday, June 9, in the House of Lords, the Earl of Derby asked for certain reports in connection with the County Courts Act Amendment Bill, respecting the actual imprisonment of persons who had been unable to pay their debts.

The Lord Chancellor promised to produce them if they existed. In his opinion the reduction of the limitation in the case of debts under £20 to one year was the true conclusion to which they must ultimately come, but at the same time the transition would, at present, be great. He was therefore prepared to agree to the amendment to reduce the period in the first instance to three years. He held also that a measure of this description ought to be purely prospective, and not retrospective, in its operation. It was intended that the period of limitation should be reckoned from the date of the last item supplied, or of the last part payment, or of any subsequent acknowledgment in writing of the debt after delivery.

Lord Chelmsford believed there would now be agreement among their lordships on this subject.

The lengthening the period during which debts under £20 can be recovered to three years instead of one will remove one great objection to the Lord Chancellor's bill.

On Friday, June 10, in the House of Lords, the report of amendments upon the Insane Prisoners Act Amendment Bill was received and agreed to.

The Chimneysweepers and Chimneys Regulation Bill was read a third time.

In the House of Commons, in answer to a question by Sir H. Verney, the Marquis of Hartington said the arrangements for the improved accommodation of the married soldiers in different camps had in some cases been carried out, and in other cases were in course of being carried out. The arrangements which had been in operation were that five or six families should be lodged in one hut. In some cases the quarters were separated by boarding and in others only by canvas. Now, however, a sum of money had been taken in the Estimates for separating those quarters in a more permanent manner. It was intended that not more than four families should occupy one hut, and a chimney would be erected in the centre, so that each family might have a separate fireplace. The families would then be completely by themselves, and although he could not say that sufficient money had been taken to carry out all the arrangements in the present year, still he believed very great progress would be made towards that end.

In the House of Lords on Monday, June 13, the Insane Prisoners Act Amendment Bill was read a third time and passed.

In the House of Commons, Sir J. Pakington asked the Vice-President of the Committee of Council on Education whether, in accordance with the statement of the Lord President last year, "that the Government were considering the best means of effecting an improvement in the Vaccination Law," and having regard to the great loss of life from small-pox which had lately occurred in London, it was the intention of her Majesty's Government to introduce any measure on that subject in the present Session.

Mr. Bruce said there could be no doubt that a very large and unnecessary loss of life resulted from neglect of the provisions of the Vaccination Act. The right hon. gentleman was aware that, although obligatory, the successful application of the Act depended on the active concurrence of Boards of Guardians, vaccinating Surgeons, and parents of the children. A similar question having been put this year to his noble friend the President of the Council, he stated that in his opinion there were only two methods by which the disease could successfully be grappled with. One way was by increasing the compulsory powers of the Act, the other by offering pecuniary inducements to the vaccinating Surgeons. Parliament, the noble lord thought, would not sanction greater compulsory powers, and he did not see his way to the application of the other alternative. He understood that notice had been given in the other House of an intention to introduce a Bill on the subject which would be referred to a Select Committee. He hoped that measure would have the effect of strengthening the law and removing the evil now complained of.

The Lord Advocate obtained leave to bring in a bill to continue the Deputy-Commissioners of Lunacy in Scotland, and to make further provision for the salaries of the Deputy-Commissioners, Secretary, and Clerk of the General Board of Lunacy. The bill was subsequently brought in and read a first time.

In the House of Commons, on June 14, Mr. Bruce moved the second reading of the Factory Acts Extension Bill, which had been introduced, he said, in consequence of a report made by Commissioners appointed by the late Sir G. C. Lewis to inquire into the condition of the children employed in certain manufactories. In stating the recommendations of the Commissioners, Mr. Bruce detailed very fully the documentary and statistical evidence bearing upon the subjects of cleanliness and ventilation of the factories and places where the children were employed; the effect upon their health and life; of injurious and dangerous occupations, and protracted daily employment and overworking; and their education. He examined and discussed the remedies suggested for the multiform evils disclosed in the report of the Commissioners, and

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the objections offered to the application of the Factory and Mines Inspection Acts to the manufactures in question, and the principles embodied in the bill, observing that the Government would be ready to give the fullest consideration to any suggestions for carrying them out.

After some discussion, the bill was read a second time.

Mr. Hubbard called attention to the operation and extent of the direct and indirect taxation now levied, with especial reference to the income-tax, and to the prospect of its continuance. He moved the following resolution:—"That the inequalities and injustice attending the operation of the existing property and income-tax disqualify it for being continuously reimposed in its present form as one of the means of levying the national revenue."

After a debate, in which the Chancellor of the Exchequer opposed the motion, it was negatived upon a division by 67 to 28.

FROM ABROAD—PROFESSIONAL REMUNERATION—FRENCH ARMY MEDICAL REPORT—INTERMISSION OF PULSE AS A RESULT OF EXCESSIVE SMOKING.

Dr. Herpin, of Geneva, has recently published some articles in the *Union Médicale*, in which he makes some propositions for reform in the mode of Professional remuneration, which, he states, are the result of mature deliberation. He recommends that the payment by fees or charges for visits should, except under special circumstances, be discontinued, and that all engagements should be by subscription, or what we should call by contract. The position of the practitioner would at once become changed, his office being to take charge of the health of his employer. One of his first duties would be to thoroughly acquaint himself with all the family antecedents, and acquire that information respecting hereditary and individual peculiarities often so difficult to obtain when he is only called in at the moment of sickness; and how often he would be in the position to prevent the occurrence of disease by the development of the resources of hygiene taken in its widest acceptation, need not be pointed out. In the event of the occurrence of acute disease, the delay in seeking aid, so fatal and so common, will be avoided, while any frequency of visits that may become necessary cannot be attributed to sordid motives. It is, however, in chronic ailments that the advantage of the plan becomes more obvious, seeing the insidious character of the approach of many of these, and their tedious duration. The subscription should include, in M. Herpin's opinion, all visits or consultations at home as well as the performance of the minor operations. There are, however, other attendances which should be paid for apart, as consultations with other practitioners. These may be sometimes asked for capriciously or unnecessarily, and, at all events, they derange the regularity of daily practice, and cause a great expenditure of time. Other circumstances which should also be separately charged are confinements, visits made at night, and those which are made at great distances or occupy an unusually long time. The servants should be included with the rest of the family in the subscription.

As to the important point, the amount of the subscription, M. Herpin fixes this upon the rather moderate basis of from a fiftieth to a hundredth part of the presumed revenue of the patient. This would amount to from 20 to 40 francs per annum for an income of 2000 francs; 100 to 200 for 10,000; 500 to 1000 for 50,000; and 1000 to 2000 for 100,000 francs. Gratuitous services should be eschewed, although, to encourage the independence of persons of narrow means who wish to avoid resorting to the public charities, the tariff may in their cases be reduced as low as 20 francs per annum. Various circumstances will cause the subscription to oscillate between the fiftieth and the hundredth parts of the revenue, such as the number of the family and servants, the distance of residence, and the reputation of the practitioner. Whether in annual or quarterly payments, the subscription should be discharged in advance. According to M. Herpin's calculation, this rate of remuneration would well-nigh double the present receipts, while patients would derive proportional advantages. In reply to the objection that this innovation upon old habits will be difficult to introduce, M. Herpin replies that this mode of remuneration has long prevailed in various public institutions, and with several private individuals. That as regards his own practice, having more especially devoted himself to the treatment of epilepsy, a disease the management of which under the most favourable circumstances calls for minute exactitude, patient treatment, and a prolonged perseverance, he has found it desirable to have recourse to this mode of payment; and that its applicability and utility, easily comprehended and appreciated by the patient, while profitable to the practitioner, have now been for several years amply demonstrated.

The French Government has followed the example of our own in publishing a volume of Army Medical Statistics, which is to be continued annually. Considering the army under three divisions accordingly as it is stationed in France, Algeria, or Italy, we find the proportions of the numbers admitted into Hospital were very different. The entries in 1862 were 258 per 1000 for the Interior, 406 for Algeria, and 422 in Italy; but the mean duration of treatment was in the inverse order—viz., 28 days per patient in the Interior, 20 in Algeria, and 24 in Italy,—this arising from the diseases in the two latter countries being of the intermittent type, rendering relapses frequent, but recoveries rapid. In the whole army there were admitted during 1862, 13,695 cases of primary syphilis and 2938 of constitutional syphilis. In the Interior 1 death took place in 39 patients, or 26 per 1000; in Algeria, 1 in 43, or 23 per 1000; and in Italy, 1 in 24, or 40 per 1000. The slight mortality in Algeria was in some measure due to the exceptional dryness of the winter 1861-62, the marsh exhalations being, therefore, much less considerable than usual. In Italy, on the other hand, the weather was very bad and marsh fever prevalent. The mortality of the army in 1862 was 9·42 per 1000 in France, 12·21 in Algeria, and 17·69 in Italy—total, 10·14 per 1000.

M. Decaisne, in a communication addressed to the *Academie des Sciences*, exhibits another clause in the heavy bill of indictment against the abuse of tobacco. He states that in the course of three years he has met, among eighty-eight inveterate smokers, twenty-one instances of marked intermittence of the pulse, occurring in men from 27 to 42 years of age, and not to be explained by organic lesion of the heart. The absence of such lesion or other condition of health capable of inducing intermissionof the action of the heart, and the fact that in nine of these instances, in which the use of tobacco was abandoned, the normal action of the organ was restored, M. Decaisne believes, will justify him in concluding that, in certain subjects the abuse of tobacco may give rise to a condition which may be termed "narcotism of the heart," characterised by intermission in the movements of that organ and in the pulsations of the radial artery; and that, in some cases, a suspension or diminution of the practice of smoking is sufficient to cause an entire disappearance of this irregularity.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE XX.—MARCH 17.

The remainder of the catarhine apes form a very natural group, which may be called *Cynopithecina*. They are all inhabitants of the old world. Their body is hairy, the colour of each individual hair being often annulated, the nails of the pollex and hallux are flattened, those of the other fingers and toes are more compressed and pointed. They have all large ischial callosities. As in the higher apes, the septum between the nostrils is very narrow. The nose is generally flat; in one species, however, produced to a remarkable extent. The ears retain their rounded form and the general configuration seen in man and the anthropoid apes. The teats are pectoral, and the penis pendant. They are nearly all provided with a tail, though in none is this organ prehensile, nor carried in a

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curled position, but generally hangs down nearly straight. In the whole of the monkeys of this group the femur and tibia together are longer than the humerus and radius, the reverse of what takes place in the anthropomorpha; and they differ from these last and from man in being essentially quadrupeds, walking when on the ground naturally on all four extremities.

The Cynopithecina are divided into six minor groups or genera. 1. *Semnopithecus*, exclusively Asiatic. 2. *Colobus*, African. 3. *Cercopithecus*, African. 4. *Macacus*, Asiatic. 5. *Inuus*, African, and found also on the rock of Gibraltar. 6. *Cynocephalus*, chiefly African. The first four genera are generally known as "monkeys," and are mostly arboreal in their habits. The last are "baboons," and are principally terrestrial. A complete gradation in external appearance may be seen between the first and the last, marked chiefly by the lengthening of the face and moving of the nostrils to the extreme end of the snout.

The vertebral column in this group of Primates has very little curvature: it is arched in the dorsal region, but the lumbo-sacral angle is very open. The regular number of dorso-lumbar vertebræ is nineteen, of which twelve or thirteen are dorsal (with a corresponding number of ribs) and seven or six lumbar. Thus the latter region is more elongated than in the preceding groups. The middle cervical vertebræ have short spines, which are not bifid at their extremities. The spines of the dorso-lumbar vertebræ present a remarkable character, common, however, to most of the lower Mammalia, though not found in the highest forms; the front ones slope backwards, and the hinder ones forwards towards a point situated near the lower end of the dorsal region. The lateral processes of the lumbar vertebræ are much developed and curved forwards. The sacrum is broad and strong, but differs from that of man and the anthropomorpha in being usually composed of but three vertebræ. The number of caudal vertebræ varies, but there may be as many as thirty-one. Subvertebral or V-shaped bones are attached to the under surface of the anterior portion of this region. The thorax is compressed laterally, and the pieces of the sternum, following the manubrium, exhibit a corresponding narrowing. In the scapula the spine is placed nearly at right angles with the internal border, and the supra-spinous is much smaller than the infra-spinous fossa. The axis of the articular head of the humerus, instead of being directed upwards and inwards as in the preceding groups, looks backwards and upwards, and the bicipital groove is placed on the inner side; the upper part of the axis of the shaft of the humerus, instead of being straight, is slightly bent. These modifications have relation to the function of the upper limb becoming less prehensile and scansorial, and more that of an organ of terrestrial progression. The radius is modified to the same end; its head is larger, transversely elongated, and placed more forward on the ulna, taking a larger share in the articulation with the humerus. The carpus possesses the ninth bone seen in the orang and the gibbons. The pisiform is long and strong, making a kind of heel to the hand. The trapezium has its characteristic saddle-shape, and the pollex is generally well developed. The pelvis presents an exaggeration of all those characters which distinguish it in the anthropomorphic apes from man. It is longer generally; the ilia are narrower and more excavated posteriorly. The axis of the ilium and that of the ramus of the pubis, nearly in a straight line with each other in man, and forming a very open angle in the higher apes, are here nearly at a right angle. The sympyhsis is exceedingly long, the subpubic arch being very much reduced. The eversion and enlargement of the tuberosities of the ischia for the attachment of the callosities is very marked. The round ligament of the hip-joint is present in all the species that have been examined. The ankle-joint presents in the main those characters seen in the higher apes; the calcaneum is somewhat more expanded and flattened than in them. The entocuneiform bone presents the usual distinctive character, and the hallux is well developed. The phalanges are less markedly curved than in the higher apes of more strictly arboreal habits.

The skull presents a considerable range of modification in the different genera, being more round, with a smaller straighter face and a high vertical ramus to the lower jaw in *Semnopithecus* and Colobus, and passing through *Cercopithecus* to *Macacus*, where the supra-orbital ridges are so developed as to obscure the forehead, the nasal bones become quite flat, the jaws project greatly, and in the inferior maxilla the horizontal is very large as compared with the vertical ramus. These last characters are carried to a much greater extent in the *Cynocephali*, in many of which the brutish appearance of the skull is increased by the development of great longitudinal ridges on the surface of the maxilla. There is an entire absence in all of any mental prominence to the lower jaw. The mastoid process has no downward development, and the styloid is not ossified. The parietals do not meet the alisphenoids. As in man and the anthropomorpha, the osseous external auditory meatus is well developed. In the interior of the skull, there is still an exaggeration of those characters by which the higher apes were distinguished from man. The brain-case is flatter and more elongated, the roofs of the orbits projecting further into it. The olfactory fossæ very deep, and even tubular in form, their entrance being contracted by the considerable mass of the frontal bone passing across the union of the presphenoid and ethmoid. The basi-cranial axis is longer in proportion to the length of the cavity, and the occipital foramen is placed still further back, being in the posterior sixth of the base of the skull; its plane is also more oblique. In the lower forms, the palate is greatly elongated, and the premaxillary suture disappears only in old age.

The dental formula is the same as in all the preceding, and the upper inner incisor is still larger than the outer. As in the anthropomorpha, the premolars have three roots in the upper jaw and two below; the canines are even larger, and the crown of the inferior anterior premolars have the anterior margin so greatly prolonged as to resemble scissor blades, which cut against the edge of the upper canines. In the following characters the teeth of the cynopothecina differ completely from those of the previously described forms. The outer lower incisors are not larger than the inner, but owing to the obliquity of the outer edge, often smaller. The upper premolar has its outer cusp peculiarly sharpened and modified. The pattern of the true molar teeth is quite different. Both upper and under teeth have two transverse ridges, of which the extremities are somewhat raised, so as to make them quadricuspidate. Sometimes the inferior posterior molar has an additional ridge on its hinder edge. Similar differences are met with in the milk dentition. A remarkable and fundamental distinction from the great anthropoid apes is seen in the order of succession of the teeth, as in the whole of the present group, the canines make their appearance before, or at least contemporaneously with the hindermost true molars.

UNIVERSITY OF CAMBRIDGE.—DOWNING COLLEGE.—At a meeting of the Master, Professors, and Fellows on the 10th inst. the following elections took place:—Foundation scholarships of £50 a-year, with rooms and commons: Collins, Schroeder. Minor scholarships of £40 a-year: Brailey and Lankester (distinguished in natural science), Hare (distinguished in classics), Payne (distinguished in law and French). £20 was awarded to Dickson for distinction in natural science. At the same meeting it was agreed that a chemical laboratory should be built upon the college grounds for the use of students in medicine or natural science, and be placed under the superintendence of Dr. P. W. Latham.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.—Names of candidates who passed the Major Examination June 15 as Pharmaceutical Chemists:—Robert Bird, Newark; Edward M. Holmes, London; Thomas P. Iliffe, Nuneaton; Sidney Payne, Stratford-on-Avon; William F. Chave, Uxbridge; John Mills, Derby; Jonathan Phillips, Godalming, Alfred R. Squire, Bristol.

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THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF BRIGHTON.

THE SUSSEX COUNTY HOSPITAL.

History and Administration.

The Sussex County Hospital was opened in the year 1828, on the 11th of June. It was originally called the Sussex County Hospital and General Sea-bathing Infirmary, but the latter part of the title has been dropped, owing to the difficulty of obtaining sea baths for the use of the Institution. The Infirmary originally sprang from the Brighton and Hove Dispensary. This Dispensary was founded in 1809, and in 1811 the President of the Institution—the Earl of Chichester—suggested that a Sea-bathing Infirmary might be added to the Dispensary, a plan which was carried out from November, 1812. The new institution was called the Sussex General Infirmary. In 1823 the committee of the Dispensary and General Infirmary alluded to a contemplated scheme for a County Hospital. The scheme went on fructifying. In 1827 it approached its completion, and in 1828 became an accomplished fact. When the new County Hospital came into operation, the Infirmary department of the Dispensary subsided, but the Dispensary itself has remained, and still continues, as I shall eventually show, in active operation.

The Hospital is situated to the east of the town, and at a distance of from three to four hundred yards from the sea. It faces the south, and commands a magnificent sea view. The building is of stone, and is four stories high. The architecture is good, and the site elevated. In front there is a small garden, and behind rather extensive grounds, with the Downs in the rear. Compared with London Hospitals, this Hospital most resembles the Middlesex. Since its foundation, the building has been enlarged by the addition of one wing in 1839, another in 1841, and two others in 1854. The main building was designed by Sir Chas. Barry; the first two added wings, the Adelaide and Victoria, were designed by Mr. Herbert Williams; and the two last, the east and west wings, were designed by Sir Chas. Barry.

Number of Patients Treated.

The number of patients treated at the Hospital amounted in 1863, to 1268 in-patients, and 5813 out-patients. The daily average of in-patients was 128½. Since the foundation the number of in-patients admitted has been 28,515, and of out-patients 74,220. The increase in the number of admissions has risen from the first year of the existence of the Hospital from 224 in-patients and 72 out-patients until the present time, and it is singular to observe how gradual the progression has been, as indicating the increase in the population of the town and district.

Rules for Admission of Patients.

Benefactors of 25 guineas or more are Governors for life; and subscribers of 2 guineas or more per annum are Governors during the continuance of their subscription. Benefactors of 50 guineas and upwards, and annual subscribers of 5 guineas, have a seat at the Board of Management.

Subscribers of 10s. 6d. annually may recommend two out-patients annually; and subscribers of one guinea may recommend four out-patients annually.

Subscribers of 2 guineas, or benefactors of 25 guineas, may recommend one in-patient and four out-patients annually.

Subscribers of 3 guineas, or benefactors of 30 guineas, may recommend one in- and six out-patients annually.

Subscribers of 4 guineas, or benefactors of 40 guineas, may recommend two in- and eight out-patients annually; but can only have one in-patient in the Hospital at a time.

Subscribers of 5 guineas, or benefactors of 50 guineas, may recommend three in- and ten out-patients annually; but can only have one in-patient in the Hospital at a time.

Subscribers of 10 guineas, or benefactors of 100 guineas, may recommend six in-patients annually, and out-patients without limitation; but can only have two in-patients in the Hospital at the same time.

Subscribers of 20 guineas, or benefactors of 200 guineas, can recommend patients without limitation, providing that no contributor has more than two in-patients at the same time.

Any person who, by individual exertion or otherwise, presents the sum of 5 guineas, may recommend 1 in- and 2 out-patients; 10 guineas, 2 in- and 4 out-patients; 15 guineas, 3 in- and 6 out-patients; 20 guineas, 4 in- and 8 out-patients during one year from the date of payment, provided only 1 in-patient be in the Hospital at the same time.

Clergymen and ministers, from whose places of worship congregational collections amounting to £10 or upwards are received for the Hospital, are, in virtue of such collections, governors for one year from the day on which the same is paid to the treasurers or secretary, and are entitled to all the privileges of annual subscribers of 5 guineas. Where such collections amount to any less sum than £10, they are entitled to the same privilege of recommending patients as is conferred upon annual subscribers of a like amount for one year from the day of payment. If the collections made at different times amount in the aggregate to £500, the parties are governors for life, and entitled to the privileges of subscribers of 5 guineas.

A nominee of contributors to boxes and collections has the same right of recommending patients as an individual subscribing the like amount.

One executor, under any one will, is entitled to the same privileges as a donor of the same amount.

Patients are received on any Wednesday, at the weekly board. Patients cannot be admitted at any other time, except on sudden emergencies, when they are received without delay at any time of the day or night. The sick and lame poor of every county and nation are entitled to admission into the Hospital.

No woman in an advanced state of pregnancy; no person disordered in intellect, or suspected to have the small-pox, itch, or other infectious disease; nor any that are in confirmed consumption, can be admitted into the Hospital as in-patients. Children are admitted into the institution.

The number of patients in the Hospital suffering under scrofulous complaints may at no time exceed fifteen. Such patients are admitted in rotation; but none can remain beyond twelve weeks, unless the Medical officers, after a consultation, shall recommend it.

Patients labouring under typhus fever, scarlet fever, other contagious fevers, or measles, may be admitted into the wards of the fever department according to the rules for admitting other patients. Such patients must bring two changes of linen at the least.

Vaccination.—The poor may be vaccinated at the Hospital gratis (without any letter of recommendation), on any day of the week (Sundays excepted), at ten o'clock in the forenoon.

Income and Expenditure.

The Hospital and grounds are freehold property. There is standing stock held in the name of trustees to the amount in round numbers of £20,000. The annual income averages from £5000 to £6000. The income is derived mainly from voluntary subscriptions.

The average cost of each bed is £50 per annum; this includes *every* expense—furnishing, building, salaries, and the like. The actual maintenance of each in-patient averages 9s. per week, and of each out-patient 1s. 6½d.

Samaritan Fund of the Hospital and Patients' Library.

The late Thomas Hankey, Esq., founded, in 1853, a fund called the Samaritan Fund, for patients of the Hospital who were in abject poverty. This fund, which now amounts to £200 a year, and is managed by a committee, is distributed in subscribing to the Metropolitan Convalescent Institution, in conveying destitute patients to their homes, in admitting accidents without recommendation, for assisting convalescents, for providing special Surgical instruments, and for providing warm clothing and other creature comforts in cases of extreme necessity.

The Medical Staff.

The Medical staff consists of Drs. E. L. Ormerod, M.D., William Kebbell, M.D., Henry Moon, M.D., Physicians. Drs. C. J. Beard, M.D., A. F. Seymour, M.D., Assistant-Physicians. Edmund J. Furner, Esq., Harry M. Blaker, Esq., G. Lowdell, Esq., Surgeons. F. W. Jowers, Esq., F. A. Humphry, Esq., Assistant-Surgeons; and N. P. Blaker, Esq., House-Surgeon. Pupils are allowed to reside in the Hospital, and out-door pupils are also admitted to the practice. There are generally from six to eight pupils studying in the Hospital. The Hospital is recognised by the examining boards.

SANITARY ARRANGEMENTS.

The Wards.

The wards of the Hospital are thirteen in number. They consist of one double accident ward for males and one single accident ward for females, three ordinary Medical wards and one ordinary Surgical ward for males, two ordinary Medical wards and one Surgical ward for females. There is a small

occasional ward for males, and a male and female fever ward; besides which there is a room adjoining each fever ward which is used as a lock ward for females, and for extreme or violent cases amongst males. The fever wards are capable of receiving six beds each; but they are rarely full. The ordinary wards receive from eleven to fifteen beds.

The cubic space varies very much in different wards. In No. 3 ward Medical the cubic space to each bed is 1300 cubic feet: in a small ward adjoining there are 630 cubic feet to each bed. In No. 6 ward Medical, the average is 1633, and in No. 10 ward, also Medical, the average is 1166 cubic feet per bed. In the fever wards the space runs to 1852 cubic feet per bed. In the Surgical wards the average cubic space per bed may be taken at 1100 cubic feet.

The Drainage is as free as can be wished: from the position of the Hospital there is a natural drainage flow into the main sewer, and so into the sea. There are still some cesspools, which are very deep. The water from the house generally is discharged into an open short channel outside the Hospital, whence it flows into a drain. It is thus impossible for effluvia to rise from the drain into the house.

The bedsteads are of iron, with one or two Earle's bedsteads for special cases. Curtains are allowed round the head of the bedsteads; they are "white check" in colour. The bedding consists of a single horsehair mattress.

Ventilation and Warming.—The ventilation of the Hospital is by the windows and also by an artificial method. This artificial method consists of a large cowl, like that seen on a malt-house, which is placed at the back of the Hospital, on the borders of the Downs. This cowl collects the air, and from it the air descends into the Hospital by a main shaft, which communicates by minor shafts ascending from the base with every ward through openings near the floor. The plan works moderately well. In some of the wards the plan known as Bird's system of "costless ventilation," is adopted. There are also in the wards near the ceiling escape flues for the exit of air, protected by small hoppers. In ward No. 2 the syphon ventilation has been tried, and has not been found to answer.

The Warming is carried out entirely by the open fire grate. There is no attempt anywhere at warming either by hot air or water. The heat of the wards is easily maintained by the open grate system, which leaves nothing to be desired.

Sunlight is freely admitted into every ward, and the Hospital is excellently situated for securing this important agency.

The Water Closets are abundant; there is one in every ward. They open, in the old wards, directly into the wards, protected by double doors. In the new wards there is an ante-room between the ward and the closet. The closets are lighted by two windows and ventilated. They are now free from smell, but in one or two cases formerly there was difficulty in keeping them sweet.

Lavatories and Sinks are provided for every ward, but each lavatory is placed in an ante-room between two wards.

The Water Supply is from the Water Company. At the upper part of the Hospital grounds, above the Hospital level, is a water reservoir. The supply of water is free and constant. The drains are thoroughly flushed.

Baths are provided for each ward. They are constructed of copper; each bath is furnished with a supply of hot and cold water. There are baths in the out-patient department, and these are found extremely useful and convenient. There is no hot air-bath in the institution.

The floors of the Infirmary are of deal. They are cleaned once every week at least, by washing and scrubbing. The dry process has never been used.

The Decoration of the Wards is indifferent. The walls are painted shoulder high, and above are whitewashed. In all the wards there are a few illuminated scrolls, but these are too conspicuous from their singleness. Pictures are not as yet introduced, but flowers are cultivated, and the cultivation is rather encouraged.

The Nursing System.

There is one head nurse to each ward, who is provided with an under nurse and a scrubber. There are, in addition, two night nurses, who are sent to wards where they are most required. The nurses are very attentive and active. One nurse has been in the Hospital for the long period of twenty-nine years. The system is not the most modern, but it works fairly here. All the nurses are under the disposition of the matron.

The Diet.

The diet is very liberal, and the extra diet list is carried out on a plan that is original. I subjoin a table of diet with special rules.

Sussex County Hospital Diet-Table for the In-patients.

Meals.	Extra Diet (Meat).	Ordinary Diet (Meat and Soup).	Broth Diet.	Fish Diet.	Milk Diet.	Low Diet.
Breakfast, 8 a.m.	Tea (or coffee by order). Bread and butter.	As in Extra Diet.	As in Extra Diet.	Milk .. .. 1 pt. Bread and butter.	Milk .. .. 1 pt. Bread and butter.	Water-gruel, barley-water, arrow-root, or sago, with beef-tea or mutton-tea, 1 pt. daily; sugar not exceeding 1 oz. to each pint of water-gruel, etc.
Dinner, 1 p.m.	Meat 7 oz. cooked, without bone; potatoes 8 oz., or other vegetables—daily. Mutton — Sunday, Tuesday, Thursday, Saturday. Beef — Monday, Wednesday, Friday.	Meat 4 oz. cooked, without bone; potatoes 8 oz., or other vegetables—5 days. Soup 1 pt., rice pudding 16 oz., sweetened with sugar or treacle 2 days, viz.:—Wednesday and Saturday.	Mutton broth 1 pt., rice or other farinaceous pudding 16 oz., sweetened with sugar or treacle—daily.	Fish 6 oz., rice or other farinaceous pudding 8 oz., sweetened—daily.	Rice or other farinaceous pudding 16 oz., sweetened, daily.	Special Diet.
						The same general allowances as in Ordinary Diet.
Tea, 6 p.m.	Tea, bread and butter.	As in Extra Diet.	As in Extra Diet.	As in Extra Diet.	As in Extra Diet.	Children.
Daily allowances to each patient.	Meat .. .. 7 oz. Bread .. .. 14 oz. Butter .. .. 1 oz. Potatoes .. 8 oz. or other vegetables. Milk .. .. ½ pt.	Meat .. .. 4 oz. or soup .. 1 pt. with pudding 16 oz. The rest as in Extra Diet	Broth .. .. 1 pt. Pudding .. 16 oz. The rest as in Extra Diet.	Fish .. .. 6 oz. Pudding .. 8 oz. Bread .. .. 10 oz. Butter .. .. ½ oz. Milk .. .. 1½ pt.	Pudding .. 16 oz. The rest as in Fish Diet.	Children under 10 yrs. of age to receive two-thirds of these allowances unless directed otherwise.
Weekly allowances.	Tea .. .. 1 oz. Sugar .. .. 8 oz.	As in Extra Diet.	As in Extra Diet.	Tea .. .. ½ oz. Sugar .. .. 4 oz.	As in Fish Diet.	All patients to be put on Broth Diet till a diet is ordered.

Mutton broth to be made with 1 lb. of meat to 1 gallon of pot liquor, thickened with rice, pearl-barley, or oatmeal, and 1 oz. of onions. Beef-tea or mutton-tea to be made with 1 lb. of meat to 1 pint of water. Soup to be stronger than broth, and to be thickened with rice, pearl-barley, or peas. Beer, wine, etc., are only given on special order of the Medical Officers.

All the articles of diet in any one of the classes in the list given below may be substituted for one another by the House-Steward, with the concurrence of the Medical Officers, according to the state of the market, or of the supplies in the Hospital.

MEATS.

a Mutton chops.
Lamb chops.
Calf's head or feet.
Tripe, stewed or fried.
Minced meat.

b Haricot mutton.
Stewed beefsteak.
Meat pies or puddings.
Sausages or black puddings.
Pork chops.
Pickled pork.
Eggs and bacon.
Liver and bacon.
Bacon and greens.

c Rabbit.
Pigeon.
Chicken.
Game.

FISH.

Soles, eels, skate, whiting, sprats, plaice, herring, mackarel, brill, according to the market and the season.

PUDDINGS.

Batter, or custard, sago, tapioca, semolina, rice, baked or boiled, bread and butter, fruit tarts or puddings.

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The Use of Alcoholics.

Ale and porter are allowed to the patients in moderate quantities, according to order. The average amount of malt liquor used per patient per day is not more than half a pint. The average allowance of wine per patient per day is rather more than half an ounce, and the amount of spirits the sixth of an ounce.

PRACTICE OF THE HOSPITAL.

The Medical practice of the Hospital presents not many cases of acute disorder. Rheumatism is common in the sub-acute and chronic stages, and, perhaps, is the most prevailing acute malady. Phthisis pulmonalis is, of course, a prevailing disease, and struma in its various forms. Epidemic diseases are comparatively rare, and such fever as is seen is mainly of the continued type. Dyspeptic cases are abundant, as well as disorders traceable to the abuse of alcohol as their main cause.

On the Surgical side, strumous diseases of bones and joints prevail largely. Calculus is not uncommon, but the cases presenting it come mainly from villages on the other side of the Downs, not from the town. Accidents of a severe kind are comparatively few. As yet ovariotomy has not been practised in the Hospital.

Statistics of the operations performed in the Hospital, and of their results, have not been kept with sufficient accuracy to allow me to use them with any degree of certainty. Operations for hernia have been almost uniformly successful. Lithotomy has not been very successful. Excision of the joints in various cases has been rather largely tried. It has succeeded in every instance where the elbow-joint has been operated upon. In the knee it has been less successful. In one case, of somewhat recent occurrence, the excision seemed at first to answer, but a secondary operation—amputation—had to be performed, from which the patient sank. Pirogoff's operation is very favourably received here. Mr. Blaker has performed it four times, and Mr. Furner twice; and every case has made an excellent cure. The subclavian has twice been tied in the Hospital recently: once by Mr. Furner and once by Mr. Blaker. In Mr. Furner's case the patient—a man—made an entire recovery. In Mr. Blaker's case the patient—also a man—lived fourteen days after the operation, and then died from hæmorrhage. It was found after death that there was extensive atheromatous disease of the arterial system, from which, in fact, the patient may be said to have died. Ligature of the external iliac has been successfully performed by Mr. Furner, and of the femoral by Mr. Blaker. There has also been a successful case of amputation of the shoulder-joint, performed by Mr. Lowdell on a man who had been crushed by the wheel of a railway carriage.

Chloroform.

Chloroform has been administered at least twelve hundred times in the Hospital. It is always administered on a hollow sponge. Snow's inhaler was once obtained for use, but is thrown aside. The administration of chloroform is entrusted to the House-Surgeon, who attends to it exclusively. There has been no death from chloroform in this Hospital, nor any untoward case. Attention is paid to the symptoms produced rather than to the quantity of chloroform inhaled.

Mortality.

On the method of calculation proposed by Dr. Farr, the mortality of the Sussex County Hospital ranks high compared with other provincial Hospitals. Taking the mortality of the year 1861 as his basis, his table yields 66·06 per cent. as the mortality of the institution for that year. This is the highest mortality we have yet met with in our Hospital inquiries, being 30 per cent. higher than at Norwich or Stafford, and 16 per cent. above that of Etruria. Considering the difference in the class of cases in the Hospital at Etruria, and the great advantage which the Sussex County Hospital possesses over the Etruria Hospital, it is exceedingly difficult to account for such a difference in the mortality of these institutions.

The reader will bear in mind that Dr. Farr's calculation is deduced, not from the division of the deaths by the average number of patients admitted during the year, but by the number of patients present on one particular day in the year. He must also remember, in using Dr. Farr's tables, that in saying 70 per cent. it is not implied that of every 100 patients that enter the Hospital 70 die, but it is meant, in describing the percentage, only to strike a comparison between one Hospital and another on a certain basis. For example, on the 8th day of April Dr. Farr finds 99 patients in the Hospital at Etruria, and 109 patients in the Hospital at Brighton; but he finds, again, that the deaths in the year 1861 were 50 at Etruria and 72 at Brighton. By this standard, therefore, the number of beds yielding fatal cases was 50·51 at Etruria, as compared with 66·06 at Brighton. For the matter of comparison between Hospitals this method is sound and practical; but it should always be taken by the side of another calculation showing the absolute number of deaths in a year by the number of cases admitted during the year.

On this last-named method of calculation I find, from a statistical table drawn up by Robert J. Rogers, Esq., late House-Surgeon to the Sussex County Hospital, that the average number of admissions of in-patients during the last ten years has been within a fraction of 1165 annually, and the average of deaths 75. This would yield a percentage mortality of a little more than 6 per cent. on the whole admissions in each year, or at least 2 per cent. more, on the same basis of calculation, than the Hospital at Norwich. I confess I do not see why there should be such a comparatively high mortality in the Brighton Hospital; neither can I detect any error in the data on which the calculations are founded.

Points of Practice.

On both the Medical and Surgical sides the treatment of disease by stimulants finds little favour. On the Medical side the treatment of rheumatism by the alkalies is much relied upon. The method has been extensively employed by the Physicians, with the effect, in their opinion, of diminishing the number of cases of disease of the heart, and in shortening the duration of the disorder. The expression of this opinion was made to me by Dr. Ormerod and Dr. Kebbell, with equal confidence. In the treatment of phthisis small doses of cod-liver oil (a teaspoonful) are now employed in preference to larger doses, and it is believed with advantage.

In the treatment of diabetes an attempt has been made to utilise common oil-cake as a food instead of the almond biscuits, which are found useful, but too expensive for Hospital purposes. The object aimed at has been to purify the oil-cake and to make it palatable as food, an attempt which, Dr. Ormerod tells me, promises to be successful.

A case of hydatids in the abdominal cavity, which occurred some time ago, under the care of Dr. Ormerod, gave occasion for a unique and successful mode of treatment. The hydatid tumour was tapped through the abdomen, and the hydatid cysts were drawn out by means of suction by a stomach pump. Hydatids were also discharged from the rectum and through the bladder. The case was under observation for five months, and the stomach-pump was used in the way described three times, at intervals of from two to three weeks. The patient made a perfect recovery.

Dr. Kebbell has been for some time past using chlorodyne very largely as an anodyne and sedative, and he thinks with the happiest results. This is worthy of note, as contrasting with an opinion expressed by Dr. Robertson, in respect to the value of chlorodyne in asylum practice, and which will be given in the sequel.

I have said that the operation of hernia is exceedingly successful in the Surgical department of this Hospital. Connected with this fact I may state that, as a general rule, the sac is opened, and that, specially, after liberating the strictured bowel the practice is not to attempt to relieve the bowels by a purgative, but to give an opiate.

The Library.

There is a Medical library attached to the Hospital containing from 550 to 600 volumes. The books have been exceedingly well chosen, and include not only the current works of the day, but a considerable number of classical works relating to Medicine and the allied sciences.

The Museum.

The museum of this Hospital is exceedingly good; not equal as yet to that at Norwich, but promising much. There are numerous specimens, all well mounted, and presenting points of much interest.

The specimen of most value is the skeleton of a man who died of mollities ossium. Owing to his extreme deformity, the man during his life was a subject of remark in the town. He was one of six children of a family, and was born with both his arms broken, an anomaly accounted for by his friends on the ground that his father had kicked his mother in the stomach during her pregnancy. The man, who grew up ricketty, was brought up as a shoemaker. At the age of thirty he married, and became very poor, when the changes in the structure of his skeleton began rapidly to advance. His case has been admirably described by Dr. Ormerod. At the age of forty his bones were so brittle that he sometimes

had no fewer than seven fractures of different bones at one time; but he lived on to be sixty-eight, and died at last "worn out," says Dr. Ormerod," by the constant pain caused by his distortions, and by some ulcers on his legs." He measured, as he lay on his back at full length, no more than 39½ inches.

Dr. Ormerod states that, although the body was so deformed, the mind of this man possessed considerable power. He had four children, two of whom lived several years. Both suffered like their father; one, a boy, died at sixteen, of small-pox: and the other, a girl—who used to be carried from one pot-house to another as a deformity to sing or jest—married, and died after undergoing the Cæsarian operation. The head of the skeleton in the Museum is large. The spinal column is contorted in two curves, and the distance from the altas to the sacrum is fourteen inches. The ribs are overlapped and contorted, and the end of the tenth left rib shows a fracture still ununited. The scapulæ are mere shells. The humeral bones are fractured, the bone having a powdery appearance in the upper part. The pelvis is enormously reduced in size; the shafts of the femur are bent into sharp curves; and the bones of the leg, to use Dr. Ormerod's words, "under the weight of the body, and the traction of the muscles, have bent till the fibula forms a curve, of which the radius is no more than 3½ inches."

Amongst Museum specimens of deformities of the skeleton, I have known of but one which approaches to this skeleton in the Brighton Hospital Museum, and that was the skeleton of a deformity who used to be seen in London some years ago, and was known as the "clarionet player." His skeleton—I believe he sold it himself, by the way, while he was living—came into possession of my once friend and colleague the late Mr. George Pilcher, and was preserved for many years in the Grosvenor-place School of Medicine. It was a wonderful deformity, but pathologically it wanted many points of interest as compared with the skeleton now at Brighton, the which I would recommend every one interested in osteological pathology carefully to study.

The Museum is very rich in specimens showing disease of the bladder, and I regret I have not time to enter into a description of them. They are worthy of study by any one engaged in inquiries having reference to vesical maladies.

A specimen showing a remarkable injury to the hand is preserved. It consists of phalanx of the right fore finger, with about nine inches attached of the tendon of the flexor profundus digitorum. The phalanx was torn off by machinery, bringing out the tendon with it. The patient recovered without a bad symptom.

A specimen of a skull which has been extensively eroded in consequence of malignant tumour of the left orbit, is of value as indicating the extent to which destruction of the bones of the orbit and the face may be extended. The patient, a boy, attributed the disorder to his having been stung in the eye with a sea-nettle. In the course of the disease the left eye, which is also in the Museum, was removed by operation.

A specimen is shown in which the bodies of the fifth, sixth and seventh dorsal vertebræ have been eroded by the pressure of an aneurism of the aorta. The cancellous structure is exposed.

A rare specimen of a case in which there was a tubercle on the spinal cord, opposite to the ninth dorsal vertebræ, is preserved. The tubercle was composed of a fibrous struma with some ganglionic cells and many fat granules, and some exudation cells. The patient suffered from complete loss of both motion and sensation in the lower limbs, commencing in the left leg. He laid for seventeen weeks in this condition previous to death.

In a specimen of a foot recently amputated, from which foot the cuboid bone was removed two years ago by Mr. Furner in consequence of strumous disease, it is found that the cartilages at the end of the metatarsal bones, which once formed, with the cuboid bone, the articulation, are still perfect and natural.

A specimen is present showing ligature of the subclavian in the patient operated on by Mr. Blaker. The man lived fourteen days, and died of hæmorrhage from both ends of the artery. The whole of the large vessels were atheromatous.

There is a specimen of ulceration of the larynx, from syphilis, with great disorganisation. The muscles of the neck of this patient, a man, were infested with trichiniæ spiralis.

A specimen of diseased lung is preserved in which, in a large cavity, an hydatid cyst lies imbedded. The cavity is lined by a smooth thin membrane.

A good specimen is retained of a thick plate of earthy matter removed from the pleura of a man aged 40 years. The palate is nearly half an inch thick in parts, and laminated. The patient, a convict, died of bronchitis.

A specimen is retained of an atrophied kidney, with great enlargement of the supra-renal capsule. The pelvis of the kidney is dilated, and the ureter, which is much dilated, is studded with vesicles filled with a brown opaque fluid. It is the only specimen of the kind I have seen, and the nature of the disease is obscure.

Lastly, there is an almost unique specimen of stricture of the œsophagus below the line of the larynx. The patient, a woman, who died of phthisis, suffered for fifteen years from difficulty of swallowing, but could take liquids. The narrowness of the stricture amounts almost to obliteration of the canal, but there is no surrounding thickening whatever. The woman said that her difficulty followed on a confinement. She never suffered from corrosive poisoning.

Should the Museum of the Brighton Hospital progress as it has commenced, it will soon be one of the best in the provinces. Much credit is due to Mr. Blaker, the present House-Surgeon, for the attention he pays to the curatorship. I have to thank Mr. Blaker very heartily for his kindness in putting all that he could at my disposal.

The sum placed to the Library and Museum account amounts to about £21 annually.

As time goes on the necessity for still further enlargement of the Brighton Hospital again becomes obvious, and a general court is proposed to be held on the 29th instant to consider the propriety of effecting such enlargement. At various times the question has been discussed of the possibility of having sea-baths within the walls of the Infirmary. The distance of the building from the sea and its elevation have up to this time prevented the carrying out of this very excellent measure. To ensure success a pumping apparatus would be required, the expense of which would encroach too greatly on the current income of the Institution.

We have seen many reasons why the inhabitants of modern Brighton should be proud of their town, but taking it all in all, there is no institution on which they need look with more satisfaction than on the Sussex County Infirmary and its noble sister institution, to which I am now about to ask the reader to follow me.

THE SUSSEX LUNATIC ASYLUM, HAYWARD'S-HEATH.

Next to the Sussex County Hospital, the Sussex Lunatic Asylum at Hayward's-heath demands special notice. This asylum was opened on July the 25th, 1859. It is intended purely for the pauper lunatics of the eastern and western divisions of the County of Sussex and of the borough of Brighton. It is conducted under the supervision of a committee of Justices of the Peace, fourteen of whom belong to the eastern division of Sussex, eight to the western division, and two to the borough of Brighton. Edward Smith Bigg, Esq., is chairman of the committee. Dr. Lockhart Robertson is the able Medical superintendent, and Dr. W. V. Browne is the Assistant Medical officer.

The asylum is situated on what is called Hayward's-heath. It is about twelve miles distant from the sea, but hidden from it by the range of the South Downs. The heath is now enclosed under the provisions of the Enclosure Act, but the character of it as a heath is not yet lost. The scenery, which reminds one much of that which is afforded at the Crystal Palace at Sydenham, is wide and beautiful, and the sea air finds its way across the expanse. The building is of brick, and, if the expression be allowable, is of the English Byzantine order. The front, which faces the south, is straight Italian, with the offices in the centre, and receding wings for the workshops, the Infirmary, and the refractory wards. The chapel faces the north entrance, and is a spacious and beautiful building, the internal decorations being singularly subdued and effective. To the surrounding neighbourhood the asylum is a conspicuous object. It may be seen for a dozen miles in all directions, and the approaches to it are very pretty. Around the building is an estate of two hundred and thirty acres, consisting of pasture land and wood. The soil is Sussex weal, a poor clay, not worth in its original form a rental of ten shillings an acre. This estate, as I shall show by-and-by, is, however, now yielding important advantages to the Institution.

The inmates, as has been stated, are all paupers belonging to the County of Sussex. The mean population resident last year in the asylum was two hundred and thirty-five male and two hundred and fifty-six female, giving a total of four hundred

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and ninety-one. The asylum was constructed at first for two hundred and fifty patients in equal proportions of the sexes, but it has recently been enlarged by the addition of one hundred and twenty-five beds for females. The total cost of the asylum, buildings, land, etc., etc., was £100,000.

Water Supply.—The water of the asylum is derived from an Artesian well on the farm, sunk to a depth of 217 feet. The supply is apparently boundless. When the pumps are not in operation the well overflows at the rate of a hundred thousand gallons per day. The water is good, but unfortunately, in spite of every effort to prevent infiltration, is impregnated with a little iron, 0·54 per gallon. This gives to the water a dirty iron colour, which cannot be removed without the filter, and which discolours the linen.

Drainage.—The drainage of the house is very complete. The main drains are all of ten inch glazed tile. The sewage is conveyed to the farm, and is there utilised, as will be explained in the sequel.

The Water Closets are arranged on Finch's plan. The seat is free from woodwork, and consists of a double circular case of porcelain. The closets open out of the wards.

Space.—The space allowed to each patient is, by superficial measurement, fifty superficial feet in the night, and twenty superficial feet in the day wards. This is the Commissioners' minimum space, and for day-room accommodation is too little. There is double the space in the day-rooms at Hanwell and Colney Hatch than is allowed here. It is proposed to build detached dining-halls for each sex, a step not less useful than urgent, to relieve the over-crowding of the wards.

The Wards.—The wards are six in number on each side; they are arranged on the old asylum plan of day-room, dining-room, and gallery, with bed-rooms opening into each, and the asylum is almost peculiar in that it possesses an upper storey, devoted to sleeping-rooms only. In a new wing, which has been built on a plan devised and drawn out by Dr. Robertson, the sleeping-rooms are built distinct from the day-rooms, and the asylum gallery system is abandoned,—an abandonment that is generally admitted by the Profession to conduce to the quiet and order of the patients, by approximating their habits of life to those of the sane.

The reason for the introduction of the gallery system into asylums is peculiar, and is, I believe, well explained by Dr. Robertson. The earliest asylums, according to him, were religious houses, which, at the suppression of the monasteries, were devoted to the reception of the insane. The long gallery and the cells adjoining constituted the structure of the monastery, and when the buildings were adapted to the use of the insane were retained, the gallery acting as a promenade for the mad. That which was a place of retirement for the exercise of religious devotion by the monk, thus became in after time a theatre for the full development of the ravings of the insane man. In going through the Royal Hospital at Bethlehem we see this gallery system still strictly carried out, the house having been rebuilt for the third time on the model of the veritable Hospital of St. Mary of Bethlehem, whither for refreshment came, in the olden time, the wearied pilgrims from the Bethlehem of Judea. In a few years we shall hope to see a remodelled Bethlehem on a country site, and a Bethlehem applying its princely resources to the full relief of the insane of the middle class whose present condition is now the most neglected of any. In a few years also we shall hope that in every asylum in England the gallery of the monk will be as great a curiosity as is the monk himself.

To return, the wards and rooms of the Sussex Asylum are decorated with less art than those of the Stafford Asylum and are less spacious, but there is, nevertheless, great attention paid to decoration; the light is very good, and every provision is made for the comfort of the inmates. The ventilation is almost entirely dependent on open fireplaces and open windows; a plan which, in the main, is found to answer best. The wards at the time of my visit were all very sweet and pure. The floors are of pine, and are washed every other day. Warming is carried out by the open fire grate. The furniture of the rooms is in stained deal, and suits well, the patterns of the furniture being in harmony with the style of architecture; the floors are covered throughout with cocoanut matting, which is made in the house by the inmates.

Baths.—There is a bath in every ward; the baths are of porcelain, on Finch's patent, and have a cold water douche pipe attached to them. There is also a Roman bath, constructed three years ago at an expense under £150. This bath has been found of great service. At the present, Dr. Robertson has under construction a general bath-room, with a Russian bath attached to it.

Bedsteads and Beds.—The bedsteads are made of birchwood, French polished, with sacking bottoms and horsehair mattresses. The mattresses are manufactured in the house.

Diet.—The dietary is very liberal: full eleven hundred pounds is expended annually on wines, spirits, ale, and porter. The food is not weighed on being given to the patients individually, but a fixed amount is sent to each ward. The following is the diet scale:—

Diet Scale.

	Breakfast, at 8.0 a.m.				Dinner, at 1.0 p.m.													Supper, at 6 p.m.					
	Males.		Females.		Males.						Females.							Males.			Females.		
	Bread.	Cocoa.	Bread.	Cocoa.	Bread.	Beer.	Uncooked Meat (free from bone).	Pie-crust.	Mutton Broth.	Vegetables.	Bread.	Beer.	Uncooked Meat (free from bone).	Pudding-crust.	Pie-crust.	Plum-pudding.	Mutton Broth.	Vegetables.	Sweet Cake, or Bread.	Butter.	Coffee.	Sweet Cake, or Bread.	Butter.	Tea
	oz.	pt.	oz.	pt.	oz.	pt.	oz.	oz.	pt.	oz.	oz.	pt.	oz.	oz.	oz.	oz.	pt.	oz.	oz.	oz.	pt.	oz.	oz.	pt.
Sunday	6	1	5	1	6	½	6	..	..	12	5	½	6	..	..	..	..	8	6	½	1	5	½	1
Monday	6	1	5	1	6	½	4	..	1	8	..	½	4	4	..	..	..	8	6	½	1	5	½	1
Tuesday ..	6	1	5	1	6	½	2	6	..	8	..	½	2	..	4	..	..	6	6	½	1	5	½	1
Wednesday ..	6	1	5	1	6	½	8	..	..	12	5	½	6	..	..	..	..	8	6	½	1	5	½	1
Thursday ..	6	1	5	1	6	½	2	6	..	8	..	½	..	..	..	12	..	..	6	½	1	5	½	1
Friday	6	1	5	1	6	½	8	..	..	12	5	½	6	..	..	..	..	8	6	½	1	5	½	1
Saturday ..	6	1	5	1	6	½	4	..	1	8	..	½	4	..	..	..	1	8	6	½	1	5	½	1
Weekly total ..	42	7	35	7	42	3½	34	12	2	68	15	3½	28	4	4	12	1	46	42	3½	7	35	3½	7

DINNER.

	Male Patients.	Female Patients.		Male Patients.	Female Patients.
Sunday	Bacon and greens.	Boiled pork.	Thursday ..	Meat pie.	Plum pudding.
Monday	Mutton broth.	Meat pudding or Irish stew (alternate).	Friday	Roast beef or pork.	Roast beef or pork.
Tuesday ..	Meat pie.	Meat pie.	Saturday ..	Mutton broth.	Mutton broth, or 12 oz. rice and 4 oz. dumpling or rhubarb (alternate).
Wednesday ..	Roast beef or pickled pork.	Roast beef or 7 oz. fish (alternate).			
				Bread, beer, and vegetables daily.	

Extra Diet for Sick.—Mince meat, steak, mutton chop, fowl, fish, eggs, mutton broth, beef-tea, essence of beef, milk, arrowroot, rice pudding, batter pudding, sago, barley water, gruel, oranges, biscuits, calf's foot jelly, porter, port wine, sherry, brandy, gin, whiskey, rum, lemonade, soda water.

Extra Diet for Working Patients.—½ pint beer, 2 oz. bread, 1 oz. cheese, at 11 a.m., and ½ pint beer at 4 p.m.; the laundry patients, ½ pint tea. Tobacco and snuff given as indulgences.

Attendants' and Servants' Diet.—Men, 1 lb. uncooked meat; women, ¾ lb. ditto; 1 lb. vegetables, 1 lb. bread, 2 pints beer, daily. 2 oz. tea, ¾ lb. sugar, ¼ lb. coffee, ½ lb. butter, 1 lb. cheese, weekly. ½ lb. meat may be exchanged for pudding or pie, at the discretion of the housekeeper.

Cocoa for One Hundred Patients.—3½ lb. cocoa, 6½ lb. treacle, 3 gallons milk, or more, if the dairy yield it.

Coffee *Ditto* 1½ lb. coffee, ½ lb. chicory, 4 lb. sugar, 2 gallons milk.

Tea *Ditto* 1 lb. tea, 4 lb. sugar, and 2 gallons milk.

Mutton Broth *Ditto* The liquor of the cooked meat, bones, &c., 25 lb. Meat, 3 lb. Scotch barley, 6 lb. rice, 50 lb. turnip, cabbage, parsnip, leek, onion, artichokes, or other vegetables, herbs, salt, and pepper.

Meat Pie *Ditto* Dripping crust, 31 lb. flour, 50 lb. potatoes, 13 lb. meat.

Meat Pudding *Ditto* 25 lb. meat, 30 lb. flour, boiled.

(Signed)
C. L. Robertson, M.D. Cantab., Medical Superintendent.

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Expenditure : Cost of Maintenance.—The cost of maintenance in our public asylums presents many variations. It is most important that this practical fact should be known, and that a correct understanding should be arrived at, so as to ensure some approach towards uniformity that shall be consistent with sufficiency of maintenance on the one hand and economy on the other. The cost of maintenance is materially modified—first, by the liberality of the diet; secondly, by the rate of wages in the district; thirdly, by the cost of fuel; and lastly, by the varying practice of the visitors in those items which are included in the repairs charged on the county rate. Some asylums charge all additional furnishing arising from increase of patients to the county rate; others to the maintenance. The following summary of average weekly cost in the undermentioned asylums is extracted from an elaborate and most carefully prepared table of comparative expenditure in the annual report of the Sussex Asylum for the year 1863 by Dr. Robertson. It is a summary to which I would respectfully direct the attention not only of Medical officers, but also of visitors of asylums for the insane.

Average Weekly Cost for each Patient for the Year 1862.

	Essex.	Three Counties.	North and East Riding, York.	Littlemore.	Worcester.	Sussex.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Provisions	5 4½	5 7	4 5½	5 1½	4 7½	5 2½
House and other expenses	1 10½	1 7½	1 6	1 9½	1 7½	2 0½
Clothing	0 5	0 8½	0 4	0 0½	0 8	0 10
Salaries	2 1½	2 0	1 8½	1 8½	1 9½	2 1½
Medicine, wine and spirits	0 1½	0 1½	0 2½	0 1	0 4	0 2½
Incidental	0 0½	0 0½	0 1	0 11	0 0½	0 1
Total	10 0	10 1½	8 8½	10 5	9 1½	10 6½
Less farm and garden produce	0 8½	1 3½	0 11	0 2½	0 4½	0 4½
Net cost	9 8½	8 9½	7 4½	10 2½	8 8½	10 2
Average number resident during the year	433	476	491	490	417	461

Amusements.—The patients are provided with every possible reasonable occupation and amusement. A table in the last annual report affords some exceedingly interesting particulars of the manner in which the day is spent by the various sufferers, and obviates the necessity of any further remark on this head, except that the patients and attendants have formed a brass band, which makes "most excellent music" and is a source of great delight.

Table showing Patients' Daily State and Employment.

(Compiled from the Daily State Book, which is made up from the Ward Returns.)

Occupation or Trade.	Daily Average No. of Patients.
Male Patients.	
Working Party. With the gardener and out-door attendant	45
Working Party. With the farm attendant	9
Working Party. With the cowman	2
With the carpenter	3
,, bricklayer	1
,, basketmaker	2
,, tailor	13
,, shoemaker	13
,, matmaker	9
,, painter	3
,, engineer	2
,, baker	2
,, house attendant	6
In brewhouse and steward's stores	2
In the wards	39
In reading and writing, &c.	49
Female Patients.	
In laundry and wash-house	45
In kitchen	9
Needlework in wards	86
Household work, etc.	41
Daily average number employed	382

	Daily Average. M.	F.	Total.
Attendance at Sunday chapel	174	183	357
,, week-day ,,	104	114	218
,, school (twice a-week)	24	20	44
,, weekly ball or picnic	74	65	139
,, monthly concert	74	69	143
,, cricket (4 days a-week)	40	..	40
,, Commemoration-day (July 25)	125	140	265
Walks about grounds	125	135	260
,, beyond ,,	70	80	150
Night Report.			
Number of wet cases	2	5	7
,, dirty ,,	1	1	2
,, noisy (at night)	1	4	5
Number of hours seclusions	2 hours	1 hour	3 hrs.
Average number resident (mean annual population)	234·9	256·29	491·19

Government of the Asylum.—The asylum may be considered as under the sole governance of the Medical superintendent, who is responsible to the visitors for the detailed management of every department. In this respect it differs, as do the other county asylums, from Hanwell and Colney Hatch, where the visitors themselves attempt to govern at their *weekly* boards (no pun is intended), and to regulate by their minutes the smallest details. At Colney Hatch the Medical officers, I believe, are required to record in a book kept by the nurse the hours of their visits to each ward, while the assistant Medical officers are confined to barracks after ten p.m. At Hanwell the porter, I am informed, actually enters in his gate-book the hours the Medical officers are absent from the building daily: a turnstile that will register the passage of no one except a doctor is, in fact, a desideratum at these institutions, and the geniuses of England had better look carefully at the advertisement-sheet of *The Times*, or they may one day miss a fine opportunity of gaining a premium for their inventive skill. "A Medical turnstile wanted immediately!" Such a heading could not fail to tell.

Of course the trust that is imposed on the superintendent of a county asylum, and the confidence that is reposed in him, is a source of strength in his government, and of advantage alike to the patients and officers; while to the Profession it is a mark of respect which is fairly deserved. The visitors of the Sussex Asylum have from the first recognised these principles in their fullest extent; and that they have not been mistaken may be proved by any one who will take the trouble to inspect their institution carefully: the order that prevails and the wonderful quiet are as remarkable as they are assuring, and contrast favourably with what is seen and felt in houses where everybody is master and nobody is in command.

Practice of the Asylum.

Mania from Local Irritation.—There is a form of mania not sufficiently understood, even by the Profession, and entirely unknown out of it, which has important bearings in relation to the influence of obscure diseased conditions on mental acts. In the cases to which I refer, the sufferers having a strong hereditary predisposition to insanity remain well until they are exposed to some kind of local irritation. Then they suddenly show extreme maniacal excitement, which only subsides as the local disorder is relieved. Some years ago I reported a case at the Medical Society of London, in which an attack of pneumonia brought on mania in this way, and Dr. Robertson informs me that he has had many cases introduced into the asylum of what may be called phthisical mania; but the best illustration of the relations recognised in phthisis and pneumonia as subsisting between maniacal exaltation and irritation of the organs of the body was related to me by Dr. Robertson in the history of a female patient, aged 33, who was admitted at Hayward's Heath in May, 1861, with persistent symptoms of violent mania, noise, sleeplessness, and refusal of food.

On examination a large tumour, the under surface of which was ulcerated from pressure in sitting, was found growing in the perineum, and attached by its base to the wall of the vagina. In July it was removed by Mr. Jowers, of Brighton, the patient having been placed under chloroform. The wound healed kindly, and the maniacal symptoms at once abated. In November she was transferred convalescent to the Oxford Asylum, from whence she was subsequently discharged cured.

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She continues well. The tumour with its attachments is now in the pathological museum of the Brighton Hospital.

Bathing.—In the treatment of the insane Dr. Robertson places great confidence in the employment of water and of baths. In all cases of cerebral excitement, recent mania, or mania following epilepsy, he employs packing in the wet sheet, the sheet being changed hourly, and being followed by the dripping sheet or cold douche. In the treatment of melancholia extensive recourse is had to the Roman bath. The temperature of the bath is raised to a high point—to 180° or even 200° Fahr. Since the introduction of the Roman bath there has been no occasion forcibly to feed any melancholic patient for determinate refusal of food. In cases of refusal the patient is simply placed in the bath for half an hour, with the cold douche afterwards. The result of this treatment on the disordered secretions, from which the refusal of food mainly arises, has been attended with uniform success. The bath has also been used here in the treatment of uræmic mania, and with equally good results. In one case of mania with albuminous urine and dropsy, in a man, the use of the bath twice a week, for three months, led to complete recovery.

Sedatives.—As a medicinal agent, Dr. Robertson is strongly in favour of digitalis, in doses of half a drachm of the tincture, especially in the management of the mania of general paralysis. The Indian hemp is much used here as a sedative, and is considered of great value. The following form is the sedative mixture of the Asylum, and is worthy of extensive application: ℞. Tincturæ digitalis; tincturæ cannabis indicæ, liquoris opii (Taylor) ætheris chlorici, singulorum unciam. Dose ʒss. to ʒj. Chlorodyne has been rather extensively tried, but is reported on by Dr. Robertson unfavourably. It does not act efficiently on the insane.

In speaking of sedative treatment, I must not omit to mention that the patients who smoke are never deprived of tobacco; and that, in the opinion of the Medical officers, they derive more benefit from the use of this sedative than from any in the Pharmacopœia. The bill for the tobacco used in this Asylum last year was £88.

Purification of Air by Iodine.—For purification of the air, Dr. Robertson has introduced the plan of diffusing iodine through the air by means of heat, on the principle described by myself in an address at the opening meeting of the Epidemiological Society last year. The method is entirely successful, and is considered as peculiarly applicable in Asylum management. The metalloid iodine is simply placed on a heated fire-shovel or plate, so as to volatilise the iodine and diffuse it in vapour through the apartment. The destruction of impure odours is immediate.

The number of cases dismissed annually from the Asylum are: as "cured," 30 per cent. on the admissions; and as relieved, 10 per cent. The mean annual mortality is 10 per cent. in the males, and 6 in the females.

The Asylum Farm.

The farm supplies the house with milk, pork, and vegetables, and the "Visitors" are now about to fatten and kill their own beef and mutton. Should they succeed in this last-named attempt, their success will be a new and important feature in Asylum economics. The farm is worked entirely by the inmates, and on one of the days when I was at the Asylum six lunatics were to be seen actively engaged mowing a heavy crop of grass. No danger was thought of in entrusting them with the scythes. Twenty-five years ago I fancy the keeper who should allow a lunatic to work with a scythe would himself have been considered "out of his mind," and placed under restraint.

Sewage and its Utilisation.—The whole of the sewage of the Asylum is applied to eighteen acres of grass land, as well as to the vegetables of the garden, on a plan suggested by Mr. Alderman Mechi. The sewage, as it comes from the house, is applied in dressings over limited areas; about thirty thousand gallons a-day of sewage thus pass over the land and flows from it almost as free from visible impurity as spring water. The value of this sewage on the grass land is such, that it has raised the estimated rent of the meadows it has fertilised from ten shillings to three pounds an acre. The Italian rye grass flourishes most under its influence. I saw a third growing crop of this grass sprouting on the 11th of the present month, and I also saw a second crop which, without exception, was the heaviest grass crop I ever observed in my life. The present value of the sewage may be safely taken at fifty pounds net profit per annum.

In conclusion, in the Sussex County Asylum as in the Stafford, epidemic diseases find no *habitat*. They come in not to kill men, but themselves to die out at once. Thus sanitary science proclaims again here, that the spreading communicable disorders are one and all preventible.

REVIEWS.

Glaucoma and its Cure by Iridectomy: being Four Lectures delivered at the Middlesex Hospital. By J. Soelberg Wells, Ophthalmic Surgeon to, and Lecturer on Ophthalmic Surgery at, the Hospital. London: Churchill. 1864. Pp. 86.

These are very excellent lectures, clear and concise. The author commences with a brief historical summary of his subject up to the time when our views upon the disease were revolutionised by the genius of Von Graefe, who, recognising the tension of the globe of the eye as the condition on which all the other phenomena he observed depended, and finding that the customary remedies for inflammation, mydriatics and tapping, all failed in giving permanent relief, and recollecting the benefit which in some other diseases resulted from iridectomy by the diminution of pressure it ensured, first tried the operation in 1856. Mr. Soelberg Wells next describes the methods practised to determine the important symptoms of increased tension and diminution of the field of vision, and then passes on to give a full account of what is to the ophthalmic Surgeon the most important stage of the disease—namely, the premonitory stage—most important, because it is on the recognition of the disease in this stage that the success of his treatment will chiefly depend. He dwells then upon each of its symptoms, increased tension of the eyeball, marked increase of any existing presbyopia, venous hyperæmia, haziness of the humours, dilatation and sluggishness of the pupil, periodic dimness of sight, the appearance of halo or rainbow round a candle, intermittent pains about the eye, and contraction of the field of vision. In the second and third lectures acute and chronic inflammatory glaucoma, that form which is named by Donders "glaucoma simplex," and in which it is not settled whether the glaucoma is inflammatory or not, and glaucoma occurring secondarily to iritis, posterior staphyloma, traumatic cataract, and projecting corneal cicatrix are fully discussed, and their indications and progress described. While pointing out the ophthalmoscopic symptoms, he shows how the excavation of the optic nerve from glaucomatous pressure is to be distinguished from congenital physiological excavation, and that arising from atrophy of the optic nerve. The fourth lecture is devoted to the subjects of prognosis and treatment by iridectomy. He taxes, and, we believe, not altogether without grounds for doing so, the opponents of the operation with an unfair representation of the amount of benefit which its advocates claim that it is capable of conferring, and at the same time with rejecting it on the plea that its *modus operandi* is inexplicable. The latter point he admits is still *sub judice;* but in an empirical art such as ours this objection goes for nothing, otherwise some of our best remedies in disease might be discarded for a similar reason. No one yet knows how arsenic cures psoriasis or quinine ague. He dwells repeatedly on the vast importance of *early* operation. He says:—"As long as the premonitory symptoms only occur at distant intervals, and the intermissions are complete, the eye returning to its normal condition during the intervals, we may postpone the operation with safety. . . If the intermissions are no longer complete, but there are only remissions of the symptoms; if the periodic obscurations, the ciliary neurosis, the iridisations, occur at short intervals of a day or two; if the eccentric vision become impaired or the field even contracted, the vessels congested, and the eyeball tense, it would be dangerous to delay the operation any longer."—P. 64. "In *acute inflammatory glaucoma* the prognosis is also favourable if only the operation is performed sufficiently early," and "we may generally expect a nearly perfect result if iridectomy be had recourse to within a fortnight after the outbreak of acute glaucoma; always remembering, however, that at least good quantitative perception of light must still be present."—P. 65. "In *glaucoma fulminans* the operation must be performed as soon as possible."—P. 66. "In *chronic inflammatory* glaucoma the prognosis must also be guarded. . . . Iridectomy will, however, generally arrest the disease and preserve the existing amount of vision, or even improve it."—P. 68. "In *glaucoma absolutum*, in which all sight, even the quantitative perception of light, is lost, iridectomy is never indicated except to diminish any

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inflammatory symptoms or severe pain."—P. 70. Here, then, is his programme of benefits which the operation can confer—a very different statement indeed from one that would pretend that the supporters of iridectomy "claimed for it the power of restoring sight in all cases of glaucoma, whatever their stage or nature might be." In the last place, Mr. Wells describes the operation itself. We commend these lectures to the perusal of all who desire to obtain a definite insight into the modern doctrines relating to this malady.

New Observations upon the Structure and Formation of Certain Nervous Centres, tending to prove that the Cells and Fibres of Every Nervous Apparatus form an Uninterrupted Circuit. By Lionel S. Beale, M.B., F.R.S., F.R.C.P., Professor of Physiology and of General and Morbid Anatomy in King's College, and Physician to King's College Hospital.

All that is required to establish the doctrine of an uninterrupted circuit is its anatomical demonstration, and this Dr. Beale has now provided. Until it was provided, analogical argument and deduction went for little. They furnished a ground for speculation approaching the truth with greater or less degrees of probability, but that is all. Physiologists, for instance, have speculated about the analogy that exists between the arrangements of the nervous system and the ordinary circuit of a galvanic combination, and have been willing to regard the circulation of force in the latter as typical of the origin and circulation of nerve force in the former. It is true, Dr. Beale makes no allusion to this in his paper, but no one can read it without being struck with the fact that the demonstration he has made of the bipolar or multipolar character of nerve cells goes far in support of the analogy. The ordinary opinion among anatomists has hitherto been that in vertebrate and certain invertebrate animals there are in connection with the nervous system, not only multipolar, but also unipolar and apolar cells. Dr. Beale, however, says that he has been "compelled to conclude from anatomical observation, that, although many ganglion cells exist which appear to be destitute of fibres, none do really exist without them;" and that from studying the question in different animals, from mammalia down to the annilides, he feels justified in drawing the following general conclusions:—

"1. That in all cases nerve cells are connected with nerve fibres, and that a cell probably influences only the fibres with which it is structurally continuous. 2. That *apolar* and *unipolar* cells do not exist, but that all nerve cells have at least two fibres in connexion with them. 3. That in certain ganglia of the frog there are large pear-shaped nerve cells, from the lower part of which two fibres proceed—*a*, a *straight fibre* continuous with the central part of the body of the cell; and, *b*, a *fibre, or fibres, continuous* with the circumferential part of the cell, which is coiled *spirally* round the straight fibres. 4. These two fibres, after lying very near to and in some cases, when the spiral is very lax, nearly parallel with each other, at length pass towards the periphery in opposite directions. 5. Ganglion cells exhibit different characters according to their age. In the youngest cells neither of the fibres exhibit a spiral arrangement; in fully-formed cells there is a considerable extent of spiral fibre; but in old cells the number of coils is much greater. 6. These ganglion cells may be formed in three ways—*a*, from a granular mass like that which forms the early condition of cell structures; *b*, by the division or splitting up of a mass like a single ganglion cell, but before the mass has assumed the complete and perfect form; *c*, by changes occurring in what appears to be the nucleus of a nerve fibre. 7. During the development of a ganglion cell, there is reason to believe that the entire cell moves away from the point where its formation commenced, so that the fibres connected with it will become elongated. 8. There are 'nuclei' in the body of the cell; and there are nuclei connected with the spiral and also with the straight fibre. The nuclei in the cell are found upon its surface and also in its substance. 9. The matter of which the 'nucleus' is composed has been termed by me 'germinal matter.' From it alone growth takes place; and in all cases the matter (formed material) of which the nerve fibre consists was once in the state of germinal matter. 10. The 'nucleolus' consists of germinal matter. It may be regarded as a new centre, which originates in a pre-existing centre. 11. The ganglion cells of the frog are connected with dark bordered fibres, and also with fine fibres. 12. Contrary to the statement of Kölliker, that apolar cells and unipolar cells are to be demonstrated in the cardiac ganglia, all the cells in these ganglia have two or more fibres emanating from them. 13. The muscular coat of all arteries in the frog, and probably of other animals, is supplied with nerve fibres. 14. Nerve fibres are not connected with the connective tissue corpuscles. 15. The so-called nucleated capsule of the ganglion cells in the ganglia of mammalia usually consists of nerve fibres, many of which are connected with the cell. 16. As nerve fibres grow old the soluble matters are absorbed, leaving a fibrous material, which is known as connective tissue. A corresponding change is observed in other textures in health and disease."—P. 26.

Practical and Pathological Researches in the Various Forms of Paralysis. By Edward Meryon, M.D., F.R.C.P., late Lecturer on Comparative Anatomy at St. Thomas's Hospital. London: Churchill and Sons. 1864. Pp. 215.

There is a certain class of books on practical Medicine which is invariably successful. We may illustrate the class we mean by mentioning the practical works of Abercrombie, and more lately Budd's book on the "Diseases of the Liver," or Habershon's on "Diseases of the Abdomen." They consist less of exhaustive treatises than a string of clinical reports. Such a book also is Dr. Meryon's. We must say that the greater part of its illustrations are culled from the published works of distinguished writers on diseases of the nervous system, and from that large storehouse of facts which is furnished by British and foreign periodical literature. We do not complain of this. We are thankful to any one who will take the trouble to put the crude mass of facts, which otherwise only serve to embarrass us, into a digestible form, searching honestly for truth and discarding error, while, at the same time, correcting the distorted conclusions of writers who view their special subjects with minds not altogether free from hypothesis and prejudice. Dr. Meryon's book is a sound one, and will, we have no question, be consulted in those difficulties which all of us so frequently meet with in the practice of our art.

We need say no more to interest our readers in favour of Dr. Meryon, and shall, therefore, pass on to a notice of the more particular construction of the volume. Oddly enough, it is a book without a preface. Of the two ordinary kinds of prefaces, certainly the preface apologetical would be out of place; while we presume Dr. Meryon thought that the preface explanatory was just as well substituted by a table of contents. By way of introduction to his subject, he gives us in his first chapter an account of the "Minute Structure of the Nervous Centres." This occupies the first twenty pages, and then he dashes in *medias res*, the succeeding chapters being severally devoted to "Paralysis from Affections of the Spinal Cord," "Paralysis from Affections of the Brain," "Paralysis from Blood Poisoning," "Paralysis from Reflex Action," and "The Progressive Forms of Paralysis."

As an example of Dr. Meryon's style, as well as of his moderation, we quote, in conclusion, his remarks upon "Blood-letting in Apoplexy:"—

"With respect to treatment, if we except the aberrations of quackery, there is one remedy which has been universally adopted by all Physicians in apoplexy; and if the maxim of Hippocrates (rather with a view of preventing serious consequences than of removing them after they have come on) had ever been borne in mind, probably no remedy would have been employed with less modification. The argument which has been used against it, founded on the assumption that no abstraction of blood can diminish the absolute quantity of that fluid in the brain, which is out of the influence of atmospheric pressure, is clearly a fallacy; for the immediate effect of venesection is to contract the area of vessels, and thereby to facilitate the restoration of the relative proportion between arteries and veins, and so far to relieve the excited action of the arteries of the brain. But M. Trousseau questions the tranquillising effect of bleeding in an excited circulation, and, therefore, even in severe cases of apoplexy seldom bleeds, on the plea that, extravasation having occurred, it is difficult to see the good that blood-letting can do. 'Extravasation on the brain,' says he, 'is like extravasation elsewhere, and no one would think of bleeding for extravasation of blood under the skin or mucous membrane. It would not facilitate absorption.' Yet it is not denied that venesection diminishes the force of arterial action; and although it may produce what is called reaction of circulation, it is calculated to relieve congestion, which, M. Trousseau admits, may lead to cerebral hæmorrhage, and to prevent the further escape of blood when any has taken place. The propriety of blood-letting ought to be determined by the special circumstances of every individual case, and not by any

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general rule of treatment. If the pulse be full and strong, and there be nothing in the history of the case to contra-indicate the operation, there can be no question as to its expediency. If, on the other hand, the pulse be small and irregular, and the surface of the body be cold, the remedy would be fatal."—P. 107.

The Illustrated Horse Management, containing Descriptive Remarks upon Anatomy, Medicine, Shoeing, Teeth, Food, Vices, Stables; together with Comments on Grooms, Dealers, Breeders, Breakers, and Trainers; also on Carriages and Harness, etc. By EDWARD MAYHEW, M.R.C.V.S. London: Wm. H. Allen and Co. Pp. 612.

WE have here a book evidently got up by the publishers in their best style, with abundance of illustrations, and everything to render it most attractive. On reading through the preface, however, we discover a harshness in the style which does not altogether disappear in the body of the work; but assuredly if a man has something to say he should not be deterred because his style is not so graceful as it might be.

We may begin by saying that this book will be useful to any one who will take the trouble to read it; and as Medical Practitioners, as a body, have a direct interest in horseflesh, which forms a part, as it were, of their stock in trade, we do not think they would do amiss were they to invest a little cash in the "Illustrated Horse Management." The first and primary object in this work appears to be to enforce the importance, not to say the duty, that every man who keeps a horse should treat it with a greater amount of consideration than is usually the case. For instance, what more simple than to walk into the stable occasionally to see whether there is a proper amount of ventilation; what more easy than to reprimand a groom for flogging a horse when he shies, which, by the way, nineteen servants out of every twenty do.

We would make one suggestion to the author, namely, that he should bring out a cheap edition of his book at a smaller price, there being a large amount of matter not really required by the ordinary public. We read descriptions of how a stud should be managed, and see drawings of stables full of quadrupeds, but what is most wanted is a volume which shall give in a few words all that can be said of a practical nature to those who keep, it may be, a single brougham horse, a saddle horse, or a pair.

We must confess to being rather partial to horseflesh, and in common with the generality of Englishmen, have an idea we are somewhat able to form an opinion of the equine race; but when our author states, as he does at page 327, that a loose box should be eighteen feet square, we are rather inclined to stand aghast and picture to ourselves the expense of a place for a horse as large as a good-sized dining-room, and as experience tells us that twelve feet square is sufficient for every purpose, we must beg to demur. The recommendation that loose boxes should take the place of stalls, is admirable, and one that we have always deemed essential, as after an animal has had its poor head lugged this way and that way at every whim of its driver, it seems but fair it should be enabled when in the stable to move or to turn which way it likes.

Our space will not permit us to go more into detail, suffice it to say that much money and not a little annoyance might be saved if every owner of a horse would make himself acquainted with the management of the animals in his stable, and not take for granted that because the groom says "The bay's legs is very bad," that therefore the animal cannot go out; and because this same worthy says horses should not be in a loose box because they invariably eat more when treated in this humane manner, that therefore it is so.

The Entomologist's Monthly Magazine. Van Voorst.

THIS publication will be very welcome to that large section of the community which amuses its leisure hours with the study of entomology. This first number contains several able articles, and is full of scientific interest. The Magazine is conducted by five gentlemen well known as zealous workers in this special branch of science. We wish them the success they deserve.

THE COLLEGE LECTURES.—Professor Fergusson delivered the last of his interesting course of lectures on the "Progress of Surgery during the Present Century" at the College of Surgeons yesterday (Friday).

FOREIGN CORRESPONDENCE.

TURKEY.

CONSTANTINOPLE, May 24.

As the condition of the British Army Medical Department is one which appears at the present time to attract an unusual share of attention, I think that some information concerning the state of the same branch of service in the Turkish empire may be read with interest. All subjects of the Porte, whether Mohammedans, Christians, or Jews, are allowed to enter the Army Medical Service; but there is this qualification, that two-thirds of all the Medical officers must be Turks, and only one-third may be selected from amongst Christians and Jews. It therefore frequently occurs that the most talented young men are refused admission into the service; while, on the other hand, men who have scarcely any knowledge of anatomy or pathology, and are extremely unlikely ever to get it, enter the Department merely because they belong to the ruling race and possess influential connexions. The same partiality is observed in granting degrees of M.D., and the result is deplorable; for, as I have already mentioned in a former letter, the habits and turn of mind of the present young generation of Turks are peculiarly inappropriate for the acquisition of a sound scientific and practical Professional knowledge.

The pupils turned out by the Medical School of the Capital are sufficiently numerous to take care of the health of the army in time of peace; but experience has shown that their number is totally inadequate in time of war, and during the campaign in the Crimea, the Director of the Army Medical Department was therefore obliged to supply the deficiency by calling civil Surgeons to his aid, most of whom were foreigners. The position of those Army Surgeons who emerge from the Medical School, and those who are taken from amongst the Profession generally, presents some differences which are worth mentioning.

The pupils of the Medical School on first entering the army acquire the military rank of captain; they are afterwards promoted to that of major (chef de bataillon), lieutenant-colonel, and colonel; the latter is the highest rank for army Surgeons, with the only exception of the Physician to the Sultan, Marco Pasha, who has the rank of brigadier-general. At first sight it would therefore appear that there was a real amalgamation of Army Surgeons and officers as regards rank; and this is indeed the case as far as outward position and salary are concerned; but after all it is only apparently so, for the Medical men do not receive a nomination decree (firman) which is given to officers, and whereby position and salary are guaranteed to them not only during the time of active service, but also if they are on leave; and whereby a pension is promised in case of their being invalided. The Surgeon, on the other hand, whatever may be his rank, only draws his salary as long as something is found for him to do; but if the authorities should not want him any longer, he is dismissed the service without any payment, until such time as he may again be required, or until he may succeed, by the influence of powerful friends, to get another place. No pension, as a rule, is given to Army Surgeons, and if a few of them enjoy it, it is by special favour only. This special favour is the sore point in the whole Turkish administration; neither the promotion nor rewards given to Surgeons are regulated by any law whatsoever. It is decided by favour whether the young Surgeon is to take his place in the capital or in the provinces; whether he is to be promoted or not etc. A certain rank, therefore, does not in the least correspond to a certain time of service, for a Surgeon may, according to Fortune's turn, one day be captain or major, and the next lieutenant-colonel or colonel. There is only this rule, that all higher charges must be in the hands of Turks, whatever may be their qualifications or those of their less favoured Christian colleagues. All the chief Surgeons of Army Corps and the chief superintendents of Hospitals are Turks; the highest rank which may fall to the lot of a Christian is mostly that of lieutenant-colonel—a Christian colonel being, indeed, a *rarissima avis*.

The natural consequences of this arbitrary system of administration are the absence of all ambition and legitimate rivalry as regards the acquisition of Medical knowledge and zeal in the service; and, on the other hand, a most unworthy servility against those powers which divide the spoils; and I may safely aver that the position of the whole Turkish Army

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Medical Department could scarcely be more undignified. For this not much blame can attach to the Medical men, since it is the system of administration which is at the root of the evil. The directors of the Medical School have often endeavoured to bring about a change, but all in vain. At the time of the accession of the present Sultan, fresh hopes of a regeneration of the Department were conceived, principally because Marco Pasha, his Physician in Ordinary, was himself a pupil of the Medical School, and was believed to nourish ideas of reform; but all hopes of any improvement being likely to result have vanished long ago, and things seem, in fact, to have gone from bad to worse.

I will now say a few words concerning the civil Surgeons who are temporarily received into the Army Medical Department, if they are required by the Government. They have no military rank and a very modest salary (from 15 to 30 Turkish pounds per month). Under such circumstances it is, of course, only the least talented members of the Profession who will follow the call of the Government; and they have, indeed, always been much below the average standard of the pupils of the Medical School. At the present time there are only very few civil Surgeons in the army; in Constantinople itself there are altogether seven of them, five of whom are employed in military Hospitals.

The following is the way in which the Medical men are apportioned to the troops. Each regiment is provided with a Surgeon, an Assistant-Surgeon, and an Apothecary; and each army corps has a Chief Surgeon, who takes the rank of colonel. The Hospitals of the capital, and of those provincial towns which are seats of the command of an army corps, have their own Medical *personnel*, consisting of a Chief Surgeon and several divisional Surgeons, who have, according to favour, rank varying from that of captain to that of colonel. The number of these latter is proportionate to the number of patients, one Surgeon being allowed to fifty patients. Each divisional Surgeon has his department assigned to him by the Chief Surgeon, who controls the doings of his subordinates, and in difficult cases aids them by his advice. The divisional Surgeon visits the patients, accompanied by the Apothecary. The rules made by Marco Pasha, the Inspector-General of the Hospitals, prescribe that after the Surgeons have visited their patients in the morning they shall all meet in consultation, and discuss the requirements of the Hospital, relate interesting cases under treatment, and talk over scientific questions, etc.; and that minutes of these proceedings shall be daily sent in to the Inspector-General. But as there is a total lack of scientific ardour amongst the Medical staff, and great dissatisfaction prevails amongst its most talented members on account of systematic neglect of merit, nothing whatever comes out of these daily meetings. Zeal for the service and interest in the progress of science cannot be made according to rule, but can only be produced by encouragement and reward of merit.

The medicines prescribed by the Surgeons are made up by the Apothecaries in the Hospital pharmacies. These Apothecaries are partly mere empiricists and partly pupils of the Medical School. They have rank varying from that of lieutenant to that of captain, and are placed under the surveillance of a Chief Apothecary, who has the rank of captain or major, and who keeps the accounts of medicines received and used. The medicines and surgical instruments for the whole of the Turkish army are furnished by the Director of the Central Pharmacy, M. Della Sudda, who is Brigadier-General, and as such has the name of Fayk Pasha.

The chief fault to be found with the organisation of the Turkish Army Medical Department is, that the pupils of the Medical School, after having received a very rudimentary professional training, are at once appointed full Surgeons to regiments or Hospitals before having served a thorough practical apprenticeship under the guidance of experienced Medical Practitioners. This want is chiefly felt, not so much in Medical cases, but where Surgical operations are to be done; and on the field of battle the Turkish army may therefore be pronounced as being quite devoid of an efficient Medical staff. This, of course, holds also good for the Navy Medical Department, which is provided for in much the same manner as that of the army. Smaller men-of-war are generally only provided with an Assistant-Surgeon, whose horizon does not go beyond cupping, bleeding, pulling out teeth, and giving enemata. Larger men-of-war have a Surgeon, an Assistant-Surgeon, and an Apothecary. The military rank of the navy Surgeons is also quite arbitrary; some of them being captains, others majors, lieutenant-colonels, and colonels. Some men-of-war are provided with so-called officers of health, that is, persons who have, during time of war, been received in the Army Medical service before having finished their course of studies in the Medical School, but have been allowed to continue in their appointments in time of peace.

GENERAL CORRESPONDENCE.

THE APPROACHING ELECTION TO THE COUNCIL OF THE COLLEGE OF SURGEONS.

LETTER FROM PROFESSOR GULLIVER.

[To the Editor of the Medical Times and Gazette.]

SIR,—As incorrect statements are abroad concerning my being a candidate for re-election to the Council of the College of Surgeons, perhaps you will permit me to explain, through your columns, the reason for my conduct on this occasion.

Since the last election to the Court of Examiners, I have held no communication with the Council. At that time I instantly tendered my resignation, because it appeared to me that the combination of the Surgeons (with one or two honourable exceptions) of the metropolitan Hospitals, to exclude from the office of examiner any one not belonging to their own body, was plainly declared and likely to be perpetuated; and more especially as, at the preceding election, that same combination had well-nigh deprived the Court of the services and countenance of an anatomist of European reputation.

I should have disregarded the open and covert attacks to which I have been subjected, and thought no more of the College of Surgeons, had the question merely concerned that body and myself; but it now appears to me as a public one, and, therefore, a duty which I owe to the Fellows to appeal to them at the approaching elections.

The consideration of some decisive measures as to the constitution of the Court of Examiners cannot be much longer delayed by the electors of the Council; and, among other questions, some such as the following must arise:—

1. Whether the Metropolitan Hospital School of Surgery be not rather a part than the whole of the English school?

2. And if so, whether the Metropolitan Hospital Surgeons of the present Court of Examiners represent anything more than a fraction of the English school?

3. And then, whether there be not a Provincial school entitled to quite as much respect as that fraction of a school?

4. Whether it be for the interest of the public and the Profession to allow those Surgeons of the London Hospitals virtually an exclusive right to the examination of those very pupils whose fees have before been pocketed by one or other of those very examiners?

5. And, if this be decided in the negative, whether it might not be expedient to have an annual election of the examiners, comprehending a due proportion of disinterested and distinguished men from external sources to fill up the vacancies in the Court?

The last part of this question might never have occurred, while that Court was at once supported and adorned by the names of such illustrious men as Abernethy, Astley Cooper, Brodie, and Green—all Surgeons at the same time of the different London Hospitals. And as to the former part, annual elections are found to work well at Edinburgh, leaving in office for many years the best examiners, and affording an annual opportunity of removing such as may not have performed the duties satisfactorily.

I am, &c.

Edenbridge, June 13. GEORGE GULLIVER.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

"Nemo sibi vivat."

LETTER FROM MR. FREDERICK MANBY.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having long felt much interest in all matters connected with the College at Epsom, and having of late experienced some apprehension as to the effect of the proposed alteration in its second bye-law, I am particularly struck with Mr. Clark's letter upon the subject in your number of June 4. It expresses so fully my own ideas that I would fain be concise and endorse every word he writes, the chief difference between him and myself being that I have already had one

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son educated at the College, have three now there, and another rising up for the like training.

From this fact, added to my having acted for many years as Hon. Loc. Sec., I may be supposed able to judge of it and the effect of its endowments upon the Profession, so I crave permission to insert a few observations, feeling at the same time that I may subject myself to remark from some, if not displeasure from our much esteemed friend and founder, Mr. Propert; and although this would pain me, yet I cannot forbear to speak upon principle, especially as the matter of reduced premium has for some time past occupied my thoughts.

I, for one, became induced in the first instance to devote my energies and feeble support to its funds, under the impression that it was, and would become, a real boon to us all, and that by increasing support I had hoped ere this that the premium per exhibitioner would have been brought to the sum of £25 or £30, as originally proposed, and thus truly have fulfilled "the good work for which the College was founded."

But as to the subject of admitting lay-scholars, I confess I do not see it. To all intents and purposes the Charter was incorporated under the name and title of "Royal Medical Benevolent College." Then, why admit any but the sons of Medical men? It may be said, "See how vast a sum has been subscribed by lay-patrons." And most truly; so it is. Yet it is also obvious that such contributions have undoubtedly been made as the best means laymen had of evincing their appreciation of the unwearied toil incurred by, and in many cases extorted from, a liberal, yet ill-remunerated Profession. Lords A., B., or C. never contemplated sending their sons to Epsom; they have their schools. The clergy and military men never contemplated it; they have their Colleges. The middle-class men never contemplated it; they have their schools also—to wit, the College recently established in Suffolk for middle-class and agricultural pupils, who are to receive first-class education and maintenance for £25 per annum.(a)

While I give full credit to our noble founder that he would wish the sons of Medical men to have priority of admission, yet—*e.g.*, if only six lay-boys be admitted this year over and above all the Medical candidates there may be for admission—still next year there will be fresh applicants, when at least six must "go by the wall," because six places are previously filled up.

As my energies have been "heart and soul" in the success of the College, as I have from time to time asked, written, entreated—nay, implored—my Medical brethren to contribute to the support of such an institution, so I would implore the Council to consider well before they rescind a bye-law which of necessity must cancel and do away with the original good design of its instigator.

As a Local Secretary, I feel pulses also, and from what I feel and hear I have no hesitation in asserting my impression that a death-blow will have been inflicted; and further, that far more of the guineas now contributed will be withdrawn than would be made up by the extra £23 upon lay scholars.

Whereas I would much rather offer some concluding remarks to the members of the Profession (so oft repeated in truth), hoping they may yet see the great necessity for joining in uniform, universal, and hearty good-will to increase the funds by annual subscriptions.

What, I would ask, might be the state of things if every Medical man in practice would contribute his half-guinea or guinea? I believe, as Mr. Propert once intimated his belief to me, that in such case every orphan boy might be gratuitously educated! What matter for thought and reflection when we refer to the recent election papers, and find forty-four candidates for six vacancies!

Sir C. Locock, at the late College dinner, made allusion to the inadequacy or lack of provision "for a rainy day" being made for our wives and families by life insurance. Alas! I lament with him that there are, indeed, with many members many, many rainy days also—that in a vast proportion such a provision is wholly impracticable.

On the contrary, I do not believe there can be a man found (professing to practise only) who could not, if he chose, give 10s. or 20s. to these funds, thus doing as much as in him lies for the benefit of the sons, at least, he may leave behind. A guinea a year is a fraction short of fivepence per week—the price of a cigar! (Not that I smoke or commend the habit, in Medical men especially.)

(a) Also the admirable schools in Sussex, Lancing, Hurst, etc., with fees from thirteen guineas upwards.—Ed.

I am again ready to admit that there are a very great proportion of needy men amongst us. I unhappily know some, and I chance also to know those who would like to send a son or sons to Epsom; but £40, with travelling and other contingencies, after all, they say, "is no great boon; we must be content to send our boys to a second or third class commercial school." A friend expressed this to me some time ago.

Now, dare I ask the cause of this lack of subscriptions? and does it arise from want of means? With the same boldness I answer no! but from an indifferent, apathetic, selfish feeling which, I regret to allege, must and does exist in men with well-to-do means and good practice;—without a child to work for, and who labour but "to heap up riches, not knowing who shall gather."

Hence it is I blush for us all when I read the annual reports of the College and behold something over £3000 annually subscribed; granting or presuming that two-thirds of this may be from Medical men, numbering, as I suppose we do, some 15,000 or 20,000.

Before concluding (if not encroaching too much upon your valuable space), I would make slight further allusion to the reduction of premium as moved by Mr. Cattlin in Council. I most fully agree with him also, that in every case it should not exceed £30 a-year, but I will concede the amendment in exceptional cases—in need, that is; and, further, where two or three from one family go at the same time, consideration should be made, as in all minor schools.

Referring to the former part of this letter, I feel that I lay myself open to remark as seeming interested, but this I disclaim, cling still firmer to the justice of it, having heard my boys speak of instances of Major! Minor!! Minimus!!! Quartus!!!! and, I *think*, Quintus!!!!! and thus I fight others' battles with my own; at the same time, with heartfelt thanks, give praise to Whom praise is due, that to this time I have been enabled, by my own single-handed exertions, in a hardworking village practice, to send so many boys, exhibitioners, and am free also to confess, though hard it is (yet 'tis a boon), harder still to have procured so sound an education at one-third increase upon this as schools are now constituted. Hence "our good fight;" and I conclude my observations by special endorsement of Mr. O. Clark's concluding paragraph, as to the scholastic discipline of the College, yet have trembling fears that "the battle will be to the strong."

I am, &c.

Rudham, June 10. FRED. MANBY.

ON THE TREATMENT OF NÆVI MATERNI BY THE SUBCUTANEOUS INJECTION OF SOLUTION OF PERCHLORIDE OF IRON.

LETTER FROM MR. ROBERT B. CARTER.

[To the Editor of the Medical Times and Gazette.]

SIR,—Some months ago you did me the honour to publish the history of a case in which the subcutaneous injection of a solution of perchloride of iron into a nævus involving the lower half of the nose, was followed by the immediate death of the patient, an infant eleven weeks old.

By the kindness of Mr. Nathaniel Crisp, of Swallowfield, near Reading, I have been favoured with an account of a similar occurrence, which recently happened in a colonial Hospital. A post-mortem examination showed that the point of the syringe (the nævus being on the cheek) had penetrated the transverse facial vein, and that the blood in the right cavities of the heart had been immediately coagulated. Mr. Crisp did not mention what quantity of the fluid was injected.

In my own case the quantity was precisely five minims; and this was injected with a slight jerk. The action of the piston, a common sliding one, had been interfered with by the chemical effect of the fluid.

I have been induced to address you again upon this subject because I find that Mr. Erichsen, in the last edition of his work on Surgery, recommends the use of subcutaneous injection of perchloride of iron, without a single word of caution about the danger attending it. In nævi of the tip of the nose he thinks it the best method of treatment. It is true that Mr. Erichsen recommends the use of Bravaz's syringe, which, by its screw piston rod secures the gradual introduction of the fluid, and prevents the jerk that happened to me. But he does not say why this syringe is better than others; and there is no evidence of any jerk in the other fatal cases that have been recorded.

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I think I am justified in saying that the subcutaneous injection of perchloride of iron should not be practised, unless it is possible, by pressure with fingers or forceps, by acupressure, or even by the temporary application of ligatures, to close for a time the channels of the efferent veins; where this can be done, the remedy is free from danger, and will usually be effectual; but, without such a precaution, it entails so much risk to the patient that only the most exceptional circumstances would permit us to advise or to employ it.

I am, &c.

ROBERT B. CARTER, F.R.C.S. (Exam.).

Stroud, Gloucestershire, June 11.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 6.

Dr. OLDHAM, President, in the Chair.

THE following gentlemen were elected Fellows:—J. M. Granville, Esq., Dr. J. F. Leeson, Dr. H. C. Phillips, and Dr. A. Wynn Williams.

Dr. OLDHAM exhibited an Ovarian Tumour removed from a lady under his care by Mr. Spencer Wells.

Dr. GREENHALGH exhibited a specimen of simple Hypertrophy of the Cervix Uteri, removed by the wire-rope écraseur.

After some remarks by Dr. HICKS and Mr. BAKER BROWN,

Dr. RITCHIE exhibited, and described the mode of using, Dr. Braun's Cephalotribe and Perforator.

Dr. BARNES considered it an objection to the perforator that it required two to work it, and was complicated. He thought the cephalotribe of Dr. Braun better than the French, and that the instrument had been perhaps too much overlooked in this country.

Dr. GRAILY HEWITT showed a cephalotribe from Paris, used by Pajot, which he considered more simple than Braun's.

A paper, by ROBERT BARNES, M.D., was read on,

SPONDYLOLISTHESIS; WITH AN ACCOUNT OF A CASE OF PELVIC CONTRACTION, IN WHICH PREMATURE LABOUR WAS INDUCED BY THE AUTHOR'S METHOD.

The memoir embraced a history of the literature of this affection and a summary of the cases hitherto recorded. It was first described in 1853 by Kilian, who defined it as a slipping downwards and forwards of the last lumbar vertebra upon the sacrum, so that one or more of the lumbar vertebræ fall into the cavity of the pelvis, encroaching upon the space required in labour. In several cases the Cæsarean section had been necessary in order to deliver. The author added a case in which he believed this form of distortion was the cause of difficult labour. A woman, previously healthy, had been injured in the back. Considerable contraction of the pelvic brim followed. There was a marked depression in the lumbar region, and a projection internally above the promontory of the sacrum. Dr. Barnes brought on labour by this method at about the eighth month. The child was extracted by turning with some difficulty, still-born. The entire labour occupied less than five hours. The mother recovered. The remainder of the memoir was devoted to the discussion of the causes of the deformity, concerning which very conflicting views were entertained in Germany.

Mr. W. ADAMS observed that he had listened to the paper with great interest, as the vertebral deformity or displacement described was but little known, and required further investigation. It seemed to him that the condition described as spondylolisthesis might depend upon several causes. Rickets might give rise to it; but this would be at once apparent by the general evidences of rickets in the development of the skeleton, distortion of the legs, etc. Caries of the first sacral bone might give rise to it; and some years after destructive disease had ceased, and anchylosis produced, the prominence forward of the last lumbar vertebra might encroach considerably on the pelvic cavity. Mr. Adams had seen a few examples of this, and had one now under his care at the Orthopædic Hospital. In this case the girl presented extreme lordosis in the lumbar region, with corresponding projection of the stomach, and a sharp posterior angular prominence corresponding to the first and second sacral bones. In all probability this girl, now twenty-one years of age, could never have a living child, in consequence of the projection of the last lumbar vertebra into the pelvic cavity. Congenital dislocation of both hip-joints produces extreme lordosis in the lumbar region, and, therefore, would probably give rise to the condition described as spondylolisthesis; and Mr. Adams had also seen it produced to some extent by a sharp rotation movement, and lateral distortion affecting the lower lumbar vertebræ, as in a case described by him in the *Medico-Chirurgical Transactions*, vol. xxxvii. It was evident that a variety of causes might produce the vertebral displacement mentioned by Dr. Barnes, whose analysis of the cases recorded in the paper would form the basis of further observations on this subject.

Mr. BRODHURST observed that this was a subject which had not received much attention in this country. He considered that the affection in question was not a true dislocation, as it was described by the author of the paper, and that it differed materially from ordinary lordosis, and from those forms of lordosis which are produced by congenital dislocations of the heads of the femurs by some very rare forms of caries of the bodies of the vertebræ, etc.; but it was induced, he said, by softening of the bodies of the vertebræ, and especially by softening and yielding of the ligaments which unite the lumbar vertebræ and the sacrum. Thus was occasioned some displacement of the bodies of the lumbar vertebræ downwards. The positions of the spinous processes showed that caries was not the cause of this affection, as had been suggested, and a section of the bodies of the vertebræ showed this fact still more clearly. He contended that this condition was due to rachitic inflammation and softening of the osseous and ligamentous structures.

Dr. BARNES said that in studying the subject he had felt the want of a more extended practical knowledge of diseases of the bones than he possessed, and was therefore glad to have the assistance of Mr. Adams in discussing it. He was quite prepared to believe that caries of the upper part of the sacrum might cause the deformity. It was one cause, and did not exclude the possibility of other causes; nor did he gather from Mr. Adams's observations that that gentleman regarded caries as the sole cause. The case of the child figured by Robert, of Coblentz, was not an undoubted case of spondylolisthesis; and he was much interested in the suggestion of Mr. Adams, that the deformity was probably due to disease of the hip-joints, causing extreme lordosis of lumbar vertebræ without dislocation. He wished it to be borne in mind that this deformity consisted in a real slipping down of the fifth lumbar vertebra from the sacrum. It was a true dislocation, and not simply a curvature of the spine. It was seen quite independently of rickets. It caused serious obstruction to labour, even in cases where the pelvis itself was free from distortion. He believed that this and other vertebral deformities possessed a great obstetric interest, and would, when more attention was directed to the subject, receive further illustration.

PRINCELY BENEFICENCE.—The Hon. Rustomjee Jamsetjee Jejeebhoy, member of the Legislative Council of Bombay, son of the late Sir Jamsetjee Jejeebhoy, placed some time since at the disposal of Mr. Crawford, M.P. for London, the sum of £15,000 for the purpose of appropriation to charitable purposes in London, in connexion with the name of his late father, more especially the charities of the City of London, of which his father was a freeman, under the following condition:—"The charities selected to be those which have in view the alleviation of the wants of the poor and indigent, the infirm and helpless, and not societies which are of a religious character." The Medical charities so selected are enumerated in the following list, the ruling principle of the appropriation being the selection of those institutions whose doors are always open to every class of sufferers on the instant, without reference to any other consideration than the merits or urgency of the particular case in need of help. The appropriation to the London Hospital is in connexion with the new wing, of which the foundation-stone is to be laid on July 4 by the Prince of Wales, and the fact that the London is pre-eminently the Hospital of the commerce of the port of London:—"Hospitals—London, £2000; University College, £1000; Metropolitan Free, £1000; Royal Free, £500; Middlesex, £500; King's College, £500; London Fever, £500; City of London for Diseases of the Chest, £500; for Sick Children, £500; Royal, for Incurables, £400; British Home for Incurables, £400; Asylum for Idiots, £400; for Diseases of the Skin, £300; total, £8500. Dispensaries—City, £500; Farringdon, £500; City of London and East London, £400; Royal General, £400; Metropolitan, £400; Western City, £200; Finsbury, £200; City Orthopædic, £200; Queen Adelaide's Dispensary, Bethnal-green, £200; total, £3000."

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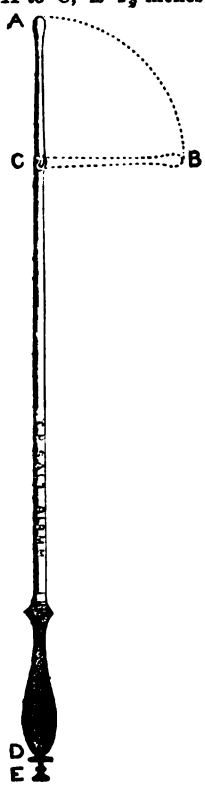
NEW INVENTIONS.

AN UTERINE SOUND, WITH MOVEABLE HEAD.

By J. LUMLEY EARLE, M.D., Obstetric Surgeon to the Queen's Hospital, Birmingham.

By referring to the woodcut, the working of the instrument will be readily understood. The portion of the sound, from A to C, is 2½ inches in length, the ordinary length of the normal uterus. It is set in motion by an internal rod, one end of which is connected with the joint at C, the other being shown at E. The head of the sound may be made to move to any point along the dotted lines from A to B by turning the screw at D from right to left.



The instrument was devised chiefly to obviate the constant bending which is necessary in the immoveable sound to make it tally with the varying obliquity of the uterus in different individuals. It possesses the advantage of being able to be set in motion while in the vagina or uterus. It may be passed perfectly straight to the os uteri, and then, gradually as it passes along the canal of the uterus, may be made to take the angle suitable to the case before us.

By using the moveable sound at certain intervals for some time it may prove beneficial in curing some cases of anteversion or retroversion. Take an instance of anteverted uterus, in which the moveable part of the sound lies at right angles, C to B, to the shaft of the instrument. By reversing the action of the screw at D, turning it from left to right, the uterus may be made to assume the perpendicular position; and, if necessary, even may be retroverted by turning the handle of the instrument round, and setting the bulbous portion again in motion.

There are other cases in which a moveable uterine sound might prove useful. It would probably remove a great deal of the difficulty generally experienced in bringing on labour in certain cases of retroversion of the pregnant uterus, as it can be passed to the os in a straight position, and made to take a suitable angle gradually as it passes through the os and cervix.

The instrument may be procured from Mr. T. P. Salt, Surgical instrument maker, 21, Bull-street, Birmingham.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, June 9, 1864:—

George Edmund Legge Pearse, Regent-street, Westminster; John Holden, Ardwick and Ancoats Dispensary, Manchester; Henry Todd Broughton, Bradford, Yorkshire; Edward Maundrell, Rutland-street, Hampstead-road.

The following gentleman, also on the same day, passed his First Examination:—

Charles Meymott Tidy, London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

HANCOCK, DAVIS W., M.D.Q.U.I., has been elected Medical Officer and Public Vaccinator to the Checkley District of Cheadle Union, Staffordshire.

KEALY, JOHN ROBERT, M.D. St. And., has been appointed Surgeon and Agent for the care of Sick and Wounded Seamen and Marines, at Portsmouth Harbour, by the Lords Commissioners of the Admiralty.

MACINTYRE, J. MAC G., L.R.C.S. Edin., has been elected Surgeon to the Daylesford Hospital, Victoria, New South Wales.

RATTRAY, Dr. ANDREW M. T., has been appointed Surgeon to the Haswell and Shotton Collieries in the county of Durham.

TURNER, J., M.D., has been elected House-Surgeon and Apothecary to the Dumfries and Galloway Royal Infirmary.

WATTS, HORACE N., M.D., has been elected Assistant Medical Officer to the Nottingham County and Borough Lunatic Asylum, Snenton.

WOODMAN, W. BATHURST, M.D. St. And., has been appointed Resident Medical Officer to the London Hospital.

DEATHS.

BULL, EDGAR, L.S.A., of Blockley, Moreton-in-Marsh, on May 29.

FORBES, WILLIAM W., M.D. Edin., of High-street, Inverness, at Edinburgh, on June 2.

SAUNDERS, THOMAS V., L.S.A., late of Bruton, Castle Carey, Somerset, at Bradford-on Avon, on May 21, aged 60.

SMITH, EDMUND, M.D., of Ilkley Wells House, Otley, Yorks, at the Rectory Richmond, Yorks, on June 5, aged 60.

WALLACE, WILLIAM, M.D. Edin., late of the 14th Regt., at Morningside, Edinburgh, on June 8.

ROYAL COLLEGE OF SURGEONS.—The annual election of Fellows into the Council on the 7th proximo promises to be a more spirited affair than is usually observed at these meetings, as, up to Monday evening last, when the time expired for sending in applications, no less than six candidates had offered themselves—viz., Professor Gulliver and Mr. Hancock for re-election, and, in chronological order, Messrs. Thomas Turner, Moseley-street, Manchester, admitted a Member of the College, May 3, 1816; Andrew Melville M'Whinnie, Serjeants'-inn, Fleet-street, January 1, 1830; Thomas Blizard Curling, Grosvenor-street, December 7, 1832; and Frederick Le Gros Clark, St. Thomas'-street, February 15, 1833. For the re-election of Mr. Gulliver, there are a great number of Fellows who feel that this distinguished Professor has not been fairly treated in his exclusion from an Examiner's Chair, and who are using great efforts to bring him in; all, however, are agreed that it would be a great injustice to exclude Mr. Hancock, who has only enjoyed the sweets of office for one year. His return is considered quite safe. To fill the vacancy caused by the death of Mr. Green, the Provincial element is represented by Mr. Turner, who will no doubt receive, in addition to the votes of a considerable number of provincial Fellows, those also in this metropolis in favour of seniority, Mr. Ransom, of Manchester, also offered himself, but at once retired from the field in favour of his colleague. Mr. McWhinnie, formerly of St. Bartholomew's Hospital, offers himself, in addition to his other high qualifications for the office, to uphold seniority. He will, no doubt, receive all the powerful support of our largest metropolitan Hospital, with which he was so long connected. The remaining candidates, Messrs. Curling and Le Gros Clark, are both Hospital Surgeons and good men, and the struggle, it is said, will be with these gentlemen, and the "plumping" system, we have heard, will be carried out to a greater extent than on the memorable occasion when Professor Fergusson was elected. We have been requested to announce that official notices of the election have been sent to all the Fellows of the College in the United Kingdom whose addresses are known at the Royal College of Surgeons.

THE ROYAL MEDICAL FUND BENEVOLENT SOCIETY.—At the annual meeting of this Society, on June 6, at the King and Queen's College of Physicians, Dublin, Dr. Corrigan, President of the College, who occupied the chair, said that the report expressed a feeling of regret that in many parts of the country four-fifths of their brethren had not contributed to the funds of the Society. In that report he fully coincided; but he did not think that their not subscribing arose from any disinclination, coldness, or apathy; but he feared in too many instances it arose from their inability to do so. Within the last few years all the necessaries of life had increased 100 per cent. Horses, carriages, vehicles,—those portions of a Medical man's establishment were absolute necessaries,—had increased to double or treble their former value; but he was sorry to be obliged to say that through the country districts of Ireland private practice had not increased, nor had salaries increased, so that, with greater expenses to meet, the means to meet those expenses were diminished. There had contributed to this a cause that would continue to operate for years—that is, the emigration of the people, the result of which was that nearly all the country towns in Ireland were diminished in size and population; many of them were verging to decay, and the Medical Practitioners in the country districts must necessarily suffer severely under those circumstances. All the efforts which had been lately made had been unavailing to secure retiring pensions for our Medical officers. With them it was

nothing but work as long as they were able, with no power to lay by, and no prospect of a pension to retire upon in their old age. When the Registration Bill was introduced last year, that College made all the efforts in its power to have the same justice done to the Irish Practitioner that was done to the English or Scotch Medical man. The College left no measure untried to procure an equal rate of justice for the Irish Practitioner, but without effect. The English Registrar got £2 10s. for performing a certain duty, the Scotch Registrar got £4, and the Irish Registrar £1. That was not an equal amount of justice. He was sorry to say that, with regard to the remuneration of Medical men throughout the country, there was not that feeling which ought to exist. The chairman of a public board lately told him that he saw no reason why they should not contract for Medical advice as well as for anything else required for the use of a workhouse. That, he said, was true political economy. The only remedy he could suggest was, that the young men who had talents and information to enable them to go to the Medical Profession must learn that there were other sources of employment open to them in the present day in the colonies and abroad, and that they should sell those talents for the highest price they could get. After some remarks on the wretched state of the Army Medical Department, and of the Profession in general, he said "they had come to this pass through a registry that put all men on a level. (Hear.) The Medical corporations were all notoriously engaged in competition, not as to who would raise education and keep it at a high price, but to lower the standard of education, and sell it at a low price." Sir W. Wilde, whilst denouncing the notion that men of 40, worth their salt, could be got to accept 10s. per diem, still thought that was enough for young men who accepted a temporary army appointments directly after passing.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

An account of the recent poisoning at Birmingham by Jatropha nuts will appear in our next Number.

Mr. J. Ruffe.—The correction was made last week, June 11.

A Country Surgeon.—"Medical Hints for Emigrants," published by the Society for Promoting Christian Knowledge.

Omen.—In London there are two forces—the Metropolitan and City Forces, the Metropolitan under the West-end authorities, the City under the Corporation. The Medical Department of the Metropolitan force consists of a Superintending-Surgeon who is paid by salary, and seventy-three district Surgeons, paid by contract, according to the following allowances for each man per annum, calculated on the maximum number of men in the district under the Surgeon's charge during each half year. Superintendents, 10s.; inspectors, 10s.; sergeants and constables, 3s. 6d., if residing within two miles of the Surgeon, and 7s. if residing beyond that distance. 5s. in rural districts where there are few men. In cases of casualties, when prisoners are taken ill, &c., and the Surgeon is called in, the following allowances are made:—Day, 3s. 6d. each case; night, 7s. 6d. each case; with, in some cases, extra charges. The Surgeon to the City Force is paid by salary; there are no divisional Surgeons.

Our attention has been called to the following letter, regarding which we will only say that it seems a pity that members of our Profession, who have the privilege of making known to their Professional brethren any ideas that they may have on points of practice, should write letters addressed to the public in the style of the following communication to *The Field* newspaper:—

"EFFECT OF MEDICINES AS TO CORPULENCE.

"SIR,—It strikes me at present that there is a tendency on the part of the public to esteem every diminution of weight or fat in the system as due to diet or healthful, but this is wrong as to some constitutions, and some medicines act as diet is supposed to do. Perhaps I might add the following two cases to those previously published. A consumptive young lady came to me, some five years ago, with curious nervous symptoms: she said she felt the ground 'sinking always under her,' a disease, I now believe, of the cerebellum. In conjunction with the late Dr. Todd, I ordered a certain medicine, which cured her perfectly. Dr. Todd said, 'Let her take it for nine months without stopping: she may grow fat, but that is no harm." This poor lady, when we saw her, it should be said, was a perfect skeleton—skin and bone, a mere shadow. She went on for a year taking the medicine; she found it did her good. I lost sight of her till about four or five months ago, as she lives in Wales. To my utter amazement, she is now one gigantic mass of fat, but otherwise in admirable health. Dr. Todd's observation did not strike me then, but it has since I read the Banting controversy, so instructive, in the excellent pages of *The Field*. I have no doubt this medicine helped the assimilation of carbon or fatty matters in an undue degree.

"Let me now give you an opposite case. An enormously fat 'city' gentleman consulted me, about a year ago, on account of an unwieldy mass of fat that prevented him moving. There was not a word then about the 'Banting system,' (due to my excellent friend, Mr. Harvey, of Soho-square). This gentleman was something like 24 stone, and could not sit at his desk. I ordered him one medicine that I have never found to fail in reducing fat. He has made no appreciable alteration in his diet either as to quantity or quality, yet he has lost about 3 stone of fat, and is now quite another being, as he sits easily at his desk.

"There is one fact lost sight of in the controversy, viz., that young people—say up to thirty-five—put up fat much more quickly than people after sixty; and to restrict the latter as to quantity or quality is a mistake, and may lead to bad consequences.

"Sackville-street, May 31. "CHARLES KIDD, M.D."

TOWN *versus* COUNTRY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE

SIR,—I am obliged by your note at the foot of my last letter, as it has opened my eyes to a fact of which I was not previously aware; I trust, therefore, you will kindly allow me space to explain that my patient himself named Dr. ——, of whom I had not previously heard, saying that "he was their family Doctor," and asking me to write him a few lines about his case. Had I known what I know now, I should most decidedly have declined the honour (?) of such a correspondence, and can only express my astonishment at his being the family adviser of any one holding so high a position as my friends do in the city of London.

I am, &c.

Farnham, June, 1864. ROBERT OKE CLARK.

NAVAL ASSISTANT-SURGEONS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As a sequel to my last letter on the above subject, I will proceed to place before your readers, in a concise form, a few of the relative advantages and disadvantages of the two services.

POSITION AND PROSPECTS OF A MEDICAL OFFICER.

In the Army.	*In the Navy.*
Roomy quarters, and all the comforts of a life on shore uninterrupted.	A hammock in the cockpit and no cabin; or, at the best, a dark, unventilated room, six feet by four, with innumerable annoyances.
Duty done, he is free to walk out where and when he pleases, unrestrained by any cause whatever.	Unable to move without a boat, which may be, and is often, refused, and which, if not refused, is pretty certain to be ill-appointed and unfit for the accommodation of officers.
Commodious Hospital and an efficient staff, completely apart from the barracks, and free from all petty annoyances.	Insufficient accommodation for the treatment of the sick, and unavoidably exposed to the chances of a thousand-and-one petty annoyances at the hands of the executive.
Continued service on full pay, and, therefore, ability to serve the allotted period without a break.	Frequent compulsory loss of time on half-pay, thus protracting the period of service indefinitely.
Considerable increase of pay on foreign service and in the field, with an equitable share of prize money according to relative rank.	No increase of pay on foreign service or otherwise, and a marked distinction to their prejudice in the distribution of prize money relatively with other officers.
The rank of Surgeon-Major acknowledged in the *Gazette*, and promotion to the higher grades tolerably certain, and pretty free from the taint of favouritism from any quarter.	No acknowledgment by *Gazette* or separate list of the rank of Staff Surgeon, and promotion to the higher grades to be obtained almost exclusively by the sacrifice of independence necessary to secure the favour of some powerful naval influence.

A comparison originating in no spirit of envy might be continued much further, but enough has been said for my purpose. I have shown, I hope satisfactorily, the absurdity of supposing that, in these days of competitive examination, the navy gets competent candidates whom the army cannot. It is very unlikely that any man who could pass the examination at Chelsea would forfeit his independence and solicit an appointment in the navy; and it is to my mind very certain that it is high time we had one common board of competent examiners for both the army and the navy.

I am, &c.

June 8. M.D., R.N.

PRESCRIBERS' COMPANIONS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I do not think that practical men are asking too much in requesting those gentlemen who oblige us with those most useful little manuals called "Prescribers' Companions," if they would use a little more caution and exercise a little more discretion in their compilations. In looking over an excellent little work of this kind, by Dr. Meadows, I find, at page 110, among the list of emetics, Tinctura Lobeliæ B. P.: dose for an adult, ʒj. to ʒiij.; for a child a year old, ♏x. to ♏xx. But who, with the slightest regard for human life, would use this powerful remedy in such doses? Again, on the same page, I read—Vinum Tabici B. P.: dose for an adult, ʒj. to ʒij. I looked in vain for the authority of the Pharmacopœia for such an alarming innovation. There is no such preparation in the B. P., and the only one of the kind I know of is that of the now defunct Ed. P., in which the dose is given as ♏x. ad. xxx. I need say nothing, I think, about giving gr ii. of the alkaloid veratria, or gr. xx. of powdered squills as emetics. I am not aware that any practitioner of experience or education would be guilty of such folly.

Again, let us look into the list of narcotics. At page 42 we read of Tr. Aconite,—"This preparation is one-fourth the strength of that in the Ph. Dub.," whereas the B. P. tells us it is one-third, an important difference with such a potent remedy. I should advise Practitioners to watch carefully even the minimum dose of ♏x. given by Dr. Meadows at page 43. Extr. Cannabis Indicæ B. P.: dose for an adult, gr. iii. to viii. But Dr. Garrod, in his lectures, says the dose is from gr. ¼ to gr. i. Now this is a very serious blunder. Then, at page 50, we are told that the minim dose of morphiæ hydrochlor. is gr. ¼ to an adult.

As I do not write at all in a captious spirit, I will not extend these extracts. I feel sure Dr. Meadows will correct them in a future edition. I am one who considers that the B. P. has in some instances been very unjustly accused, and I think I have discerned motives beneath such abuse. I think it requires but little revision to make it as perfect as a work of this kind can be. A posological table, a recurrence to our old

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weights, a good index, and the addition of some valuable medicines which have been omitted, are what strike me as the principal desiderata.

I am, &c. C. R. BREE, M.D.,
Senior Physician to the Essex and Colchester Hospital.

P.S.—I find that the Tr. Aconite B. P. is really one-fourth the strength of that of D. P. Therefore, the mistake is that of the editor of the Pharm., and not of Dr. Meadows. I still, however, stand by my criticism of the dose. C. R. BREE.

THE GUILLOTINE.

OF the origin and history of this famous instrument of punishment an erroneous idea generally prevails. The popular version is that it was invented in 1785 by Joseph Ignatius Guillotin, an eminent Physician, and deputy for Paris in the Constituent Assembly. This is not correct. An instrument differing from the guillotine only in its heavy and cumbrous construction already existed in Italy. It was known in Genoa by the name of manuaja, and it was by the manuaja that Beatrice Cenci was beheaded at Rome in 1605. The "maiden," an instrument not unlike the guillotine, was long known in Scotland, and it was employed on the Regent Morton, who is said to have introduced it. It was used also in Halifax, Yorkshire, in the reign of Queen Elizabeth. The Duke of Montmorency was beheaded at Toulouse in 1632 with the manuaja.

All that Dr. Guillotin, who was a man well known for his humanity, had to do with the matter, was preparing the draft of a law in the Constituent Assembly, in 1789, to the effect that the mode of inflicting death on criminals should be the same for all alike, without any distinction of nobles or plebeians; in fact, that it should be uniform. Before the revolution of 1789 the inequality that existed during life was maintained in death; the noble was beheaded, the villain hung from the gallows. But the inequality was a trifling grievance in comparison with the cruelty which accompanied the execution. There was the stake and faggot for those convicted of sacrilege or heresy; the tearing from limb to limb by horses for regicide; the breaking on the wheel, with the additional refinements of barbarity for crimes of other descriptions.

The bill proposed by Guillotin was voted, and the Assembly enacted, on January 21, 1790, that "in all cases where the law pronounced the penalty of death the punishment should be the same, whatever might be the nature of the crime; and, moreover, "that the criminal should be beheaded by means of a simple machine." The same Assembly also introduced in the Penal Code (October, 1791) this clause, "the penalty of death shall consist in the simple taking away of life without the accompaniment of any sort whatever of torture; and the convict so condemned shall be beheaded." The clause stands the same at the present day.

Decapitation being thus declared the only legal mode of inflicting death, the next step was to invent the simplest mechanism and the least painful for the purpose. The Committee of Legislation directed Doctor Louis, who was then Perpetual Secretary of the Academy of Surgery, to draw up a report on the best mode of decapitation to be applied to criminals. The report was presented to the Committee on March 7, 1792, and on the 20th of the same month the Assembly passed a law, which was sanctioned on the 25th by the King, declaring that the penalty of death should be carried out in the manner recommended in the Report of the Perpetual Secretary of the Academy of Surgery. In this paper Doctor Louis did no more than suggest the plan on which the instrument should be constructed; but he was enjoined to get one constructed according to his plan. A German, named Schmitt, a maker of harpsichords, was employed for the purpose, and on April 19, 1792, Dr Louis informed Roland, then Minister of the Interior, that "experiments had been made with Schmitt's instrument at the Bicetre on three dead bodies, and that the heads were cut off with such precision that he was astonished at the strength and celerity of its action." It was at once introduced, and the "experiments" made with it soon after the date of the latter, and for a long time afterwards, were not of the harmless nature of those at the Bicetre. In the memoirs of Sanson, the famous headsman, recently published, a full account is given of the instrument. The first execution for which it was used was that of a highway robber, which took place on the 27th of May, and the first political execution was that of Collenot d'Anglemont, on the 21st of August following.

The machine was at first popularly known by the name of Louison, or Louisette, from the inventor's name. By some unaccountable change of public opinion, or caprice, it soon got the name of guillotine, which it keeps to this day, and will probably do so as long as it remains in use, though Dr. Guillotin had nothing whatever to do with its invention or construction, and had merely proposed the measure of uniformity in the mode of execution. There is another error also very generally spread, that Guillotin himself died on the scaffold during the revolution by the instrument of which the invention was falsely attributed to him. Dr. Guillotin long survived the revolution, and died quietly in his bed in 1814. —*The Times' Paris Correspondent*, June 11.

COMMUNICATIONS have been received from—

Mr. W. F. CLARKE; Mr. REDFERN DAVIES; Dr. P. W. LATHAM; Mr. G. BOBLASE CHILDS; Mr. ROBERT OKE CLARK; Dr. HUMPHRYS; Mr. F. MANLEY; Mr. J. RUFFE; COUNTRY SURGEON; Mr. W. E. PORTER; Mr. ROBERT B. CARTER; Dr. J. FAYRER; Dr. A. D. MACKAY; Dr. R. H. PYE SMITH; APOTHECARIES' HALL; PHARMACEUTICAL SOCIETY OF GREAT BRITAIN; Mr. D. O'BRIEN; OBSTETRICAL SOCIETY OF LONDON; ETHNOLOGICAL SOCIETY OF LONDON; Dr. M. T. RATTRAY.

BOOKS RECEIVED.

Notes on Clinical Medicine. By Willoughby Francis Wade, M.B. No. 3, on Rheumatic Fever. Birmingham: H. Wright. 1864.

*** This little pamphlet is a very valuable contribution to practical medicine. When we think of the vast amount of disease that depends on rheumatic fever, we feel glad of any help either to prevent it in those predisposed, or to carry the patient well through it when it has begun. Dr. Wade insists that rheumatic fever generally follows anæmia. He writes, "I venture, then, to affirm that in most cases of rheumatic fever we shall be able to elicit a previous history of that debility which is so common a concomitant of deficiency in the red globules of the blood."

As regards treatment, Dr. Wade follows Dr. Chambers' plan of bedding in blankets. He also wraps up each affected joint in a thick layer of cotton wool. In some cases he medicates the wool with an alkaline solution, and recommends the same application to the chest when pericarditis is threatened. He then gives a dose of five or ten grains of calomel with from thirty to sixty grains of compound jalap powder.

He urges that the use of the calomel is to be defended on the ground that it does good, and that the recent researches tending to show that it does not act on the liver do not invalidate this position. When the patient has taken a purgative before he comes under care he still gives the calomel, but combines with it ten or fifteen grains of Dover's powder instead of the jalap. Dr. Wade has not much faith in the opiate treatment, but occasionally gives a dose of opium if the patient be unusually irritable, restless, and bears pain badly. Dr. Wade having thus paved the way, begins the more special treatment of the disease. He gives the following mixture in ounce doses every two, three, or four hours:—R. potass. nit., ʒj. ; potass. acet., ʒiii. ; aquæ, ʒviij. But he insists apparently more than all on copious diluents. As soon as ever there is a distinct remission of the symptoms, *i.e.* from twenty-four to seventy-two hours, he gives quinine, two to four grains every three or four hours, but continues to give the former mixture every night and morning. When the quinine is given the patient may have meat if he likes. When the rheumatism is quite gone iodide of iron is ordered.

The chief point in the paper seems to us to be the one referring to the antecedent anæmia, but the paper is full of interest to the Practitioner.

Observations on the Laws referring to Child Murder and Criminal Abortion. By George Greaves, M.R.C.S.E. Manchester: D. Kelly. 1864.

Rheumatism, Gout, Sciatica, and Neuralgia; their Rational Pathology and Successful Treatment. By John Pursell, M.D. London: John Churchill and Sons. 1864. Pamphlet.

Further Observations on the Diagnosis of Fatty Heart, and on Smoking, etc., as Causes of the Disease. By Henry Kennedy, A.B., M.B. Dublin: Fannin, and Co. 1864. Pamphlet.

Advice to a Wife on the Management of her own Health. By Pye H. Chavasse, F.R.C.S. Sixth Edition. London: John Churchill and Sons. 1864.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 11, 1864.

BIRTHS.

Births of Boys, 985; Girls, 938; Total, 1923.
Average of 10 corresponding weeks, 1854-63, 1715·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	661	624	1285
Average of the ten years 1854-63	541·2	508·6	1049·8
Average corrected to increased population..	..	..	1155
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	..	5	10	5	11	3	1
North ..	618,210	..	18	12	2	6	13	5
Central ..	378,058	1	18	4	..	5	9	1
East ..	571,158	..	84	9	1	12	13	6
South ..	773,175	4	7	12	3	16	13	6
Total ..	2,803,989	5	82	47	11	50	51	19

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·744 in.
Mean temperature	59·6
Highest point of thermometer	78·4
Lowest point of thermometer	45·5
Mean dew-point temperature	49·4
General direction of wind	S.W.
Whole amount of rain in the week	0·00 in.

APPOINTMENTS FOR THE WEEK.

June 18. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

20. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

21. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. Mr. H. Christy, "Notice on Some of the Prehistoric Cave-dwellers of Southern France." John Crawfurd, Esq., "On the Supposed Infecundity of Human Hybrids or Crosses."

22. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.

23. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

24. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

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HUBBUCK'S PURE OXIDE OF ZINC.

Sold by the London Wholesale Druggists, in Boxes, 14 lbs. each, stamped by the Manufacturers.

Pulvis Jacobi ver, Newbery's,

FRAS. NEWBERY & SONS, 45, ST. PAUL'S CHURCHYARD.

CHLORODYNE CHANCERY SUIT.

JANUARY 11th, 1864.

BROWNE AND DAVENPORT versus FREEMAN.

"It was fully proved and established in Court, before Vice-Chancellor Sir W. P. Wood, that Dr. John Collis Browne was the Discoverer of Chlorodyne.

"The Vice-Chancellor observed that Dr. J. Collis Browne's Chlorodyne was known before the Defendant 'Freeman' had ever thought of using the word; that the Defendant's conduct led to a very strong suspicion that there was a gradual course of proceeding on his part to mislead people into the belief that, when they bought his medicine, they were purchasing Dr. J. Collis Browne's Chlorodyne; and that, if the Plaintiffs could show that any one had actually been deceived, an Injunction would be granted."—*Times*, January 12.

Affidavits from eminent Physicians and Surgeons of the Metropolitan Hospitals proved, beyond doubt, that Dr. J. Collis Browne was the discoverer of Chlorodyne; that they prescribe it largely, and invariably mean the original Chlorodyne of Dr. J. Collis Browne.

An Affidavit by Mr. Warington, Chemical Operator to the Apothecaries' Company of London, also established the fact, that Dr. Browne was the inventor of Chlorodyne; that the Company receive large orders for the supply of Chlorodyne for the Public Service, Hospitals, Merchants, and the Profession; and that, when Chlorodyne is ordered, they invariably supply Dr. J. C. Browne's.

Affidavits from Messrs. John Bell, Pharmaceutical Chemists, 338, Oxford-street, and several leading Wholesale Druggists of London, to the same effect, and that, when Chlorodyne is ordered, they invariably supply Dr. J. Collis Browne's.

Sole Manufacturer—J. T. DAVENPORT, 33, Great Russell-street, Bloomsbury, London.

In Bottles, 1oz, 3s.; 2oz., 5s.; 4oz., 8s.; 10oz., 15s.

Neither Physician nor Surgeon in plaintiff's suit even mentioned Freeman's compound; so much for the *truth* of its being the *preferred* medicine, as stated by the defendant. It is equally untrue that the Vice-Chancellor intimated in the slightest degree that the defendant had the right to the sole use of the prefix Original, as quoted in his advertisement in the "Pharmaceutical Journal," March 1, 1864.

The observations of the Vice-Chancellor, as reported in the "Times," speak for themselves.

Each Affidavit from Physicians, Surgeons, and Chemists affirms that Dr. Browne's Chlorodyne was known to them in 1855; whereas the Defendant "Freeman's" Compound was not heard of until 1859, after the Original Chlorodyne had obtained world-wide fame.

TOWLE'S CHLORODYNE.

OF KNOWN COMPOSITION.

For Formula, &c., see back Numbers.

Extract of Letter from Dr. C. KIDD (Author of Standard Works on Chloroform).—"SIR,— . . . Of the value of Chloroform given internally I have no doubt; it appears to me in that form an anodyne, *sui generis*, that no other anodyne can approach. I have resolutely opposed the use of *secret* compounds of chloroform, and in every way I can encourage the use of the 'Chlorodyne' (if we must have it at all) that is made by you, as you state that its composition is known. Many Medical men think with me, and recommend your compound, but will never prescribe a secret remedy.—CHAS. KIDD, M.D.—Sackville-street, Piccadilly, London, April, 1862.—To Mr A. P. Towle."

Extract of Letter from ALFRED ASPLAND, Esq., F.R.C.S. Eng., J. P. Chester and Lancaster, Surgeon 4th Cheshire Batt. V.R., Surgeon to the Ashton Infirmary.—'After an extensive trial of your Chlorodyne in Hospital, Infirmary, and Private Practice, I am able to state that it is a valuable medicine. I have found its action peculiarly serviceable in Bronchial, Spasmodic, and Neuralgic Affections. I have never found it produce headache or feverish disturbance, results which not unfrequently occur from other forms of Chlorodyne. As a sedative to allay excitement arising from the abuse of intoxicating drinks, so commonly witnessed in our Barrack Hospital, I have been perfectly satisfied with it. Its known composition will doubtless prove an additional recommendation to the Profession.—To Mr. A. P. Towle."

Sold by Wholesale Houses in bottles, 1 oz., 1s. 6d.; 2 oz., 2s. 6d.; 4 oz., 4s.; and 8 oz., 8s.

SOLE MANUFACTURER—A. P. TOWLE, CHEMIST, &c., 99, STOCKPORT-ROAD, MANCHESTER.

LIQ. CHLOROFORMI CO. (TOWLE'S).

This preparation is identical with "Towle's Chlorodyne," *sine* Ol. Menth. Pip. (dose 5 to 20 minims, as in Chlorodyne).

The Proprietor having for some time past, at the request of several members of the Medical Profession, made a preparation of Chlorodyne without peppermint, has lately, on account of the frequency of these demands, prepared the same for more general use, under the designation of LIQUOR CHLOROFORMI CO., which, possessing the Medical properties of Chlorodyne, may be prescribed in all cases where the Ol. Menth. Pip. is disapproved, and overcome the objection so generally felt to the use of the term "Chlorodyne."

May be obtained, as an introduction, from the following Wholesale Houses, in 2 and 4 oz. bottles, at 2s. 6d. and 4s. each:—London: Barclay and Sons, 95, Farringdon-street. Birmingham: Southall, Son, and Dymond. Liverpool: Clay, Dod, and Case. Edinburgh: Duncan, Flockhart, and Co. Glasgow: The Apothecaries' Company. Dublin: Bewley, Hamilton, and Co. Manchester: Jas. Woolley; and the

Proprietor—A. P. TOWLE, 99, STOCKPORT-ROAD, MANCHESTER.

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ORIGINAL LECTURES.

LECTURES ON THE PROGRESS OF SURGERY DURING THE PRESENT CENTURY.

DELIVERED AT

The Royal College of Surgeons,

By Professor FERGUSSON.

LECTURE III.—FRIDAY, JUNE 10, 1864.

MR. PRESIDENT AND GENTLEMEN,—My first formal operation in Surgery was for hare-lip, in the year 1828. The patient was a youth seven years old, and, as was expected, the result was satisfactory. The gap in the lip was complicated with one in the palate. For thirty-six years at least since then my attention has been given, more or less zealously, to these subjects; and, judging from what I have observed during that considerable period, I fancy that my experience on both has been as much as that of most men in this country. During that time I have seen many hundreds of both kinds of cases; and being about to frame a lecture for the present occasion, the question naturally arises, Have I anything new to say? I have in a manner exhausted the subject, as far as my knowledge goes, in my clinical teaching; but as a number of years have elapsed since I published either cases or observations I believe that I cannot do better than refer to them both, and, whilst recapitulating some principal points, bring forward such others as may with you appear in some degree novel.

To begin with hare-lip: I may state that there is no such resemblance to the lower animal in the human subject. The fissure in that animal [pointing to a diagram] is invariably in the mesial line; in man it never is. Of the many cases which I have seen I have never met with an instance in which there has been in the mesial line either a single or a double fissure; the defect has been always on one side, or both; and when it has extended to the alveolar ridge, it has also appeared on one side or both; whilst the mesial line, both in bones and soft parts, has been in a manner perfect.

There is great variety as regards the mesial part of the lip: often it is slender, in all dimensions. In those instances where it is slender, it does not extend to the pro-labial or free margin; and where there is much deficiency, it is usually associated with a flat nose and short columna; in other instances it is of fuller dimensions in all respects. In many examples of double fissure, the central portions are apparently thrust forward, and seem of extraordinary development; but these features, as also the flat alæ and expanded nostrils, I am inclined to attribute chiefly to defective bulk in the lateral portions of the alveoli. Here are specimens to illustrate these remarks. I have no doubt that an erroneous impression has sometimes arisen in this way. Here is a likeness, after an operation for hare-lip, showing the cicatrix exactly in the mesial line; and with some this might appear as a direct refutation of what I have stated. But here is the face before an operation was performed, and the gap was as large on the other side, and it was as marked an instance of cleft under each nostril as could be; in the operation the middle projection of bone has been taken away, whilst the mesial portion of lip has been used chiefly to form a columna for the nose. The result is a cicatrix exactly in the mesial line; and thus, I imagine, a most glaring example of the lateral fissures has been supposed to be a positive proof of defect in the mesial line. I repeat, that I have never seen an instance of the kind; whilst I have seen some rare examples of fissure in the face elsewhere, such as in the eyes, cheeks, and lower lips. In the cheek I have seen a congenital fissure extend from the angle of the mouth to the malar bone, as it did in this instance before the sketch was taken, the fissure not being in the position where the ordinary fissure in hare-lip is. Indeed, in this instance there was a split lip in the usual position, on the left side; and in another instance I have seen a fissure extend from the angle of the mouth outwards towards the masseter or angle of the jaw, as represented here. In one rare example I have seen a congenital gap in the lower lip, as represented in this diagram, extending from near the left angle of the mouth to the base of the lower jaw. It is the only instance of such congenital malformation that I have seen. As you may perceive, it is amenable to operation, and the gap was accordingly closed.

In most cases of this malformation, where there is a fissure through the alveoli, as well as the lips, the central portion usually presents difficulties to the satisfactory accomplishment of an operation; and it has often been a nice question what should be done, either as to retaining or removing the part. In some rare cases there is no protrusion beyond the ordinary line. There is comparatively little protrusion in this instance to which I am pointing; you will see examples where the protrusion is much less conspicuous than there; but in the majority, if there is only a single gap, there is a projection forwards, which may seriously impede the exact approximation of the edges at or soon after an operation. Before deciding such a question it might seem highly advisable to know what this part really is, and what may be its apparent importance.

The most striking way in which I can bring the subject before you is to take the example of double fissure in the alveoli, such as you may suppose represented on this sketch. Now, whether the central part projects forwards or not, there is a round knob, like the tip of a finger or thumb, according to age, which is familiarly known as the inter-maxillary portion—a bone or bones; and while it has usually been referred to as single, it has also been spoken of as analogous to the premaxillary bones in animals of a lower grade. Some anatomists, such as Von Ammon and Vrolik, have displayed great research on the subject; but I know of no more minute anatomy in the English language than that in my own work on Surgery. There it was shown, that this projection consisted of two portions of bone, joining in the middle under the columna nasi, as in the normal junction of the superior maxillary; and you see before you the first specimen that I was ever acquainted with, illustrative of that feature. Two portions have been macerated in this specimen, and purposely held asunder, so as to show the gap between them in the mesial line. The first specimens that I had of this were procured by clipping the projection off during the operation, at its narrow neck above, in the line of the vomer. I have subsequently examined more entire specimens from the dead body. Here is a specimen, which I may show you as a contrast to that which you have just seen. The two portions are still held together, as in the normal condition of that malformation. I say, I have subsequently examined more entire specimens, procured from the dead body, and found that the united portions form a projection, extending upwards and backwards, by a narrow neck, until they join by a kind of symphysis with the lower and front end of the vomer. There is here a very strongly-marked example of cleft palate, the cleft being remarkably large; and what makes it more peculiar is, that the septum of the nose has been thrust on one side; the pre-maxillary or inter-maxillary portion is also carried by it, or thrust to one side; and it so happens, that this gives a more available illustration than we usually meet with of this fact, which, in as far as I know, may be looked upon as an original illustration. Here is the vomer from this specimen, magnified considerably; here is the inter-maxillary portion, also magnified; and here is the junction—the symphysis, as I have called it. Now, in the specimens procured from the living body we generally cut the two portions of bone at the narrow neck, through, where I am touching; and this remains ever after lost sight of. So far as I know, we have no dissections or illustrations illustrative of these points, on the adult subject, after operations have been performed.

When the palate is split, as it very generally is, in the double fissure through the alveoli, the vomer sometimes has its only support below, in this inter-maxillary portion, or rather, the projection seems to be an appendage to the vomer; for it appears to be supported in its position by that bone, and by the cartilaginous fibres and mucous tissues associated in the septum. Even in the youngest fœtal human upper jaw it is difficult to detect the distinction between the inter-maxillary portions, equivalent to the pre-maxillary bones in the lower animals, and the true superior maxillary portions of this bone; but, curiously, whilst no line of the kind can be traced in the well-developed fœtal skull, in the *front* part of the alveolar ridge, the suture remains tolerably distinct in the posterior portion of this bone, until a late period of adult life. In fact, fissure can be detected, in a very large number of specimens, on the palate, whilst in front it cannot be detected at birth, in the generality of instances, or at all events in comparatively early life. In the central portion, the two central incisors, deciduous and permanent, are each at the

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proper time usually tolerably perfect. The lateral incisor on each side, both deciduous and permanent, is generally of imperfect development, or altogether wanting, and instead of projecting downwards usually slopes into the fissure; or, instead of projecting downward perpendicularly, it will project sometimes in a horizontal, and sometimes in another direction. It is often shed at an early period, from decay of substance, or from actually falling out entire, having a very indifferent socket. The canine, or eye tooth, generally makes a fair show, and is of tolerable use, although it projects inwards in many instances, and is rarely to be compared with the normal tooth, or, I might say, the same tooth in the normal jaw. These are specimens very well worth looking at by those who are interested in the subject. So far as I know, they are comparative rarities, few Surgeons having taken the pains and trouble to preserve them after operations, or look after specimens of the kind.

Now, this inter-maxillary portion may be looked upon practically as one mass in the deformity now under consideration. It may vary in size, breadth, and thickness, also as regards its prominence; but it is always found in the skeleton as I have represented. I look upon this as a peculiarly valuable specimen; for it may be considered as a specimen in the adult—the inter-maxillary, with the two front incisors tolerably perfect. Here, for the purpose of illustration, the two parts have been parted and kept asunder; and in examining the alveoli, or examining the mass altogether, there is no appearance of any other teeth having been there at all, although I have no doubt there would be some rudimentary appearances, probably, of imperfectly developed teeth, at a somewhat earlier period of life. When there is only one fissure in the alveoli, the mesial portion on that side has often a tendency to project forward, so as to endanger the success of the operation for the remedy of the malformation. In such a case I consider it best to cut the part away. The blade of a scalpel can readily be passed in the line of junction in the middle, and the division can be easily effected with a knife, if the subject be young. Here are several specimens of the kind; and here are specimens of one half of the maxillary bone or bones.

When the fissure is double, it has been proposed to bend the projection back by pressure, or after breaking its narrow neck; but I have noticed, on trying both plans, that the mass has been an impediment to a very satisfactory operation on the lip; and whilst I do not positively object to the occasional use of either of these plans, I decidedly give a preference to the removal of the projection altogether. If bent backwards, it will probably be at the damage of the vomer and septum. Whether bent or broken, the teeth will be thrown on a new plane, and will be likely to project backwards. I have recently heard it proposed, to cut out a portion of the narrow neck, so as to let the knob fall backward into a better place; but if this were done, I should doubt if the knob would not die from the want of circulation. Of course, if the part can be preserved in its natural position, that will be best; and if there be any slight projection, that will be gradually remedied by the pressure of the lip after the operation. However wide the gaps in such cases, it is remarkable how they close, as years roll on; for in many instances the opposite sides approximate so closely, that a fissure will almost elude observation in the adult subject. I have never seen a complete osseous closure. Close approximation gives strength to this condition of the upper jaw. In early years, where there is no lateral support, the inter-maxillary portion and the central incisors must be of little value as regards prehension, incision, or mastication, for the narrow vomer will give little stability in such case.

Now, as to the causes of this defect, whether in the lip or jaw, I have no explanation to offer. I look upon most of the theories on the subject as proofs of how easily even educated men give a loose rein to the imagination. If this be the case among ourselves, it is not to be wondered at that, among the non-initiated, particularly females and mothers, the influence of the imagination is supposed to have a baneful effect. When we hear of mothers producing boys or girls at will—a son and heir, for example, or a daughter when the boys become more numerous than the governor may think right—then I shall believe in the influence of imagination. If imagination had much effect, there would never be a male heir wanted for our estates. If I may, or dare, venture a theory of my own, I am of opinion that the defect arises from the breed, and that it occurs when there is a predisposition in the parents. I fancy I can detect this in the features of father or mother, or both.

Regarding the operation itself, my experience extends to between 300 and 400 cases. Prior to 1850, I kept notes of only a few such cases. At that time I was asked to operate on one which had baffled the best efforts of Mr. Liston and Mr. Lonsdale, and at the same time to use a spring or truss, to push the sides of the lips forward—an invention of Mr. Hainsby, the father of the child. The operation proved successful, and I had good reason to be satisfied that the instrument had been efficacious. It is the instrument I hold in my hand, and you will see it in action in several specimens before you on the paper. Since the time I first used it, I applied it in upwards of 250 instances, and have every reason to recommend it as superior to any straps or other means that have been used for *drawing* the parts together. Its influence, you perceive, is for *pushing* the parts. Now, of these cases particular notes were taken, some of which are interesting: 146 out of 250, for example, were males; showing a large preponderance on the male side, which has not been explained, or much referred to: 153 were on the left side, showing a large preponderance there too. That is a fact that has been frequently observed by others; but here you have it in considerable numbers. Fifty-three were double fissures, and no less than 208 out of the 250 were associated with cleft palate: 169 of these operations have been performed in King's College Hospital. As to the results, three of these patients have died seemingly from the proceeding, not from bleeding or shock, but from some child's ailment supervening, such as the thrush or diarrhœa. I have never seen a single instance of convulsions afterwards, at any period of life, and I have operated at all ages, from a few days old up to thirty-six years. Taking all things into consideration, I am of opinion that the earlier the operation is performed the better—assuredly before teething, and I decidedly prefer about the end of the first month. In a simple case and a healthy infant it may be done any time earlier, to within a few hours of birth. If the child is weakly, and the gap large, particularly if complicated with split palate, I strongly advise delay for some months, until additional strength is acquired, and also that the parts may be pushed closer in apposition by the use of the truss referred to. I have sometimes made babies wear this for many weeks or months before, and have always noticed its great value.

In double fissure I have generally operated on both sides at the same time. Occasionally, however, I have taken first one and then the other, selecting the simplest, and performing the second operation a few weeks, possibly a few months, after. In some of these double clefts the middle portion of the lip has been so split, that I have used it for the columna, particularly in instances where the nose has been flat, when it has seemed needful to take away the mesial projection. The closure of the gaps or gap has always been a very easy matter; but where this part has been prominent, there has often been cause for much anxiety as to the result. The tension of the lip over this part has threatened to be too much for recent adhesions. In only one instance has there been total failure of union, and in that I afterwards repeated the operation with success. In several cases there has been serious threatening of a non-union, by the gap opening an hour or two, or a day or two, after the stitches have been removed; in such instances I have scraped the surfaces, introduced needles again, and put all up as at first, and thus made the process appear only as one. This method I have rarely seen fail. On one occasion a child was running about eight days after a very successful operation for a single fissure. It unfortunately fell on its face, and at once split the union open. Although eight miles off, it was brought to me within a couple of hours, when I introduced needles afresh, and with the ordinary care the result was as perfect as could be desired.

After trying a variety of lines of incision, and seeming cunning devices, for adaptation of opposite surfaces, so as to give the best possible appearance to the lip, I confess that, with few exceptions, I consider the old-fashioned straight line, from the root of the cleft to the free margin of the lip appears to me to be the best. If a notch or irregularity is left in the lip, it arises generally, I believe, from too little having been cut away. To make sure of a good and easy approximation of surfaces, I strongly recommend the free separation of each side of the fissure from the alveoli. Some have said, the frænum from the mesial line in a single fissure should not on any account be cut. It is often unusually large in such cases, and I confess that, from my experience, I see no reason why it should not be cut as readily and freely as any other part of the mucous membrane from the lip to the jaw. To take a

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refined view of a perfect operation, I myself find the most difficult part to be that of bringing the opposite sides so accurately together that the margin between the mucous membrane and skin should meet on a proper level. It is a very common thing, to have the red part on one side a little higher than the other; and, with all the pains one is inclined to take in these cases, I have often myself been disappointed as to the result. There are many sketches here illustrative of that circumstance. It is one kind of consolation, that in some of these cases the operation may be repeated at some future day.

The position of patient and Surgeon during the operation deserves some notice. I have often seen the operator sit or stand in front of the patient; and in general, before the work has been finished, his face and dress have been sputtered over with blood, saliva, and mucus. A far better plan is to be behind, or at the side, so that all the annoyance referred to may be avoided. In infancy the head should rest between the Surgeon's knees; he should sit; and in the adult the operator may stand behind a chair on which his patient sits, or the head or side of a table on which he may lie. In either of these postures he may escape the unseemly damage to personal appearance to which I refer. A few of my infantile patients have taken the breast after the operation; but most have been fed by hand, and some modern devices with sucking bottles have been of great service. Many of these observations are of no novel character; but possibly the experience that I have had may render them of additional value. It may perhaps be thought that, in bringing this minor subject of Surgery before you in these lectures, I deal but lightly with my position. You may have noticed already, that I look upon some of the so-called minor subjects in Surgery as by far more important than some imagine. But, in extenuation of my present course, I may refer to the circumstance that the illustrious Roux, in writing the experience of forty years of Surgical practice, did not disdain this topic, and actually made it the subject of one of his famous letters to "Cher Lawrence," his equally distinguished and experienced contemporary.

Experience in hare-lip naturally implies some experience in cleft palate; and I hope that I am not taking an additional liberty, in placing this subject in association with that already referred to. In further apology, I may state that both the surgery and anatomy of cleft palate are entirely of modern date, and within the time to which I have limited the scope of these lectures. The early history of the operation for cleft palate sounds like a romance. In 1819 a Medical student applied to Roux, then one of the Surgical luminaries of Paris, with a defect of this kind. Roux pared the edges of the cleft, and brought them together with stitches; union followed, and the palate became like a normal one; and when the youth appeared among his friends again, the change in his voice was such that he could scarcely be recognised as the same person. I doubt if this case, although fairly made public by Dr. Stevenson, in his general dissertation on velosynthesis, when taking his degree at the University of Edinburgh in 1820, produced the full effect on the Surgical mind that it should, even when further elucidated in the famous essay by Roux, published in 1825. Possibly, the rarity of the occurrence and the difficulty of the operation led to apathy; and, down to the period of Roux's death, no one seems to have had any experience on the subject at all equivalent to his.

Like others taking their early surgical lessons in the third decade of the present century, I was attracted by the romance referred to; but I had seen little to absorb special attention. While busy in dissecting-room work, a subject with cleft palate came under notice. At that time, as even now, I suppose, few students took the pains to dissect the palate; but it was my fortune to have this one to luxuriate upon. I made a careful dissection of all the muscular parts, and came to the conclusion that I had rarely seen it so highly developed, although the palate and throat were small, being those of an aged female. The whole matter fell aside for years. I had performed the operation on the living body, and I heard of others doing so, without success.

The subject, on this side the Atlantic, at all events, in a manner slept, with the exception of the doings of Roux himself; but about 1840 all Europe, in a Surgical sense, rang with the brilliancy of Stromeyer's operation for club-foot and Dieffenbach's for strabismus,; tenotomy and myotomy became the fashionable Surgical mania, and I bethought me of my former dissection of the cleft palate. For anything I knew, it was original. I compared it with the normal condition anatomically and physiologically, and then reflected on what I had heard and seen of Surgery, as applied to this condition, by Roux and others. My zeal was further stimulated by a paper by Dr. Warren, of Boston, which told of a larger proportion of success by Dr. Mutter, of Philadelphia, and himself, than to my knowledge had yet been attained by any others, not even excepting Roux. On additional reflection I fancied that I had fallen upon new views in anatomy, physiology, and Surgery, and my conclusions were embodied in a paper which was submitted to the Medical and Chirurgical Society of London in December, 1844. That paper was honoured with a place in the volume of *Transactions* for 1845. Its main features went to show how the cleft was closed in deglutition, by the action of the superior constrictors of the pharynx—how the palato-pharyngei in cleft palate acted differently in this state than in the normal palate, and instead of closing the opening between the pharynx and the larynx, in reality tended to draw the parts asunder,—an act which was overbalanced by the vigour of the upper constrictors of the pharynx. Above all, looking to the Surgical aspect of the malformation, I gave it as my opinion that the action of the levatores palati probably exercised such an influence on the lateral portions of the palate after the operation of Roux as to mar its good intentions. I showed, in as far as one could, by reference to the dead and living parts, how the levator muscle on either side had such free and uncontrolled action, that whenever excited it drew the margins of the clefts upwards and outwards, and so tugged upon the stitches put in by the Surgeon, that ulceration in their sites and separation of the junction was a most probable result—that, indeed, which had caused the failure of Roux's operation in so many instances. The inferences which I drew were, that if the palato-glossus, palato-pharyngeus, and levator-palati on each side were divided, the soft flaps would hereafter for a time be so relaxed, that in all probability the mesial line of adaptation would be so little disturbed, that union would take place. The tensor-palati, I considered, would have little disturbing influence; nor did I put much importance on that of the palato-glossus. My impression was, that the action of the palato-glossus and palato-pharyngeus, particularly that part in the posterior pillar of the fauces, was likely to prove detrimental; and, in accordance with the somewhat novel and already popular practice of myotomy and tenotomy in other directions, I recommended the division of these muscles, as adjuncts to the ordinary operation for cleft palate.

By modern custom the department of anatomy associated with the Professorship of Surgery in this College has been held of comparatively little account, although both my predecessors have displayed remarkable acquirements in this direction, which they have turned to great account in the field of Surgery. As your Professor of Human Anatomy, I hope I may not be out of order in claiming to be the first who solved the problem of how the cleft in the soft palate is closed during deglutition. The drawing influence of muscles has been most recognised; the pushing has been less taken into account, although it is very considerable. Swallowing, the vermicular action of the intestines, defecation, are notable examples of this force, just as palpable in the estimation of the anatomist as the drawing of the biceps in flexing the arm. Anatomy without physiology would be in a manner senseless; but when joined together they give life and soul to Surgery. The influence of the constrictor muscles of the pharynx in the process of deglutition was well known to physiologists; but how, during that process, the gap of cleft palate was closed in the vacant space which I point to in these various sketches was an enigma, until I had the good fortune to show that the parts are pushed together by the action of the superior constrictor particularly, so that the gap between the pharynx and nostril is completely closed during deglutition, as if the velum were entire.

Then for the Surgical aspect. After the investigation I showed that by temporarily taking off the influence of such muscles as in common action tend to draw the two portions of the cleft aside, there was a probability of such entire rest that union in the central line was most likely to take place—certainly, at any rate, more likely than with these muscles in full vigour, irritated as they might be by the wounds, by the inflammation, and by the presence of stitches. The almost intolerable distress, the depressing influence, the actual danger, in the injunction against swallowing, laid down by Roux and others, made the early operations of this kind examples of human endurance which few could follow

out to the full extent. Such injunctions had been occasionally disregarded; and Sir Philip Crampton gave some notable examples of the kind. Since I showed, anatomically and physiologically, that during deglutition the parts are actually pushed together, the process is no longer forbidden; and now a fair share of suitable nourishment is freely permitted,—a matter of great importance, as regards the successful issue of any operation. With a single exception, which shall be nameless on such an occasion as this, I am not aware that any anatomist or Surgeon of repute has controverted my views, as expressed in the paper referred to; nor need I do more than advert to the amiable and flattering device of a Continental admirer, in bringing them all out anew in a few years after, as if they were his own. I have heard of nothing yet to impugn the anatomical explanations which I first gave of how various hap-hazard incisions might or might not facilitate the approximation and the adhesion of the margins of the cleft in the soft palate. The knife for dividing the levator-palati was my own device; and here are many of the instruments which were used by my own hand at an early date.

Those who have devoted attention to cleft palate during the last twenty years must have been surprised at the recent dispute as to the priority of separating the soft from the hard palate, with a view to close the cleft in the hard. Dr. Mason Warren described his process in 1843, and it was referred to in my original paper. I myself performed it in January, 1845, and have since repeated it on all fitting occasions. The late Mr. Avery devoted special attention to this portion of the palate, and after his death the subject was further ably developed by Mr. Pollock, in a paper published in the Medical and Chirurgical *Transactions* for 1856. The first idea that I had of this portion of the operation for cleft palate was obtained from Dr. Mason Warren. I deem it but fair to the reputation of that distinguished Surgeon to state that I know of no originality before his, and that I look upon all modern claims to such originality as arising either from ignorance or a desire to rob the fair reputation of a name which, in son as in father, will stand for generations among the brightest in Surgery.

Although working at the subject of cleft palate since the date of my first paper, I cannot pretend to add much that is novel to the views which were then expressed. I have little to add, and little to retract, from the anatomy and physiology which I have ventured to submit as original. I am still as much convinced that the tensor-palati has little or no influence on the soft palate—certainly that it has none to counteract the closing of the gap. The palato-glossus, I am of opinion, has no practical influence, and, except in rare instances, I am convinced from experience that there is no necessity to interfere with the palato-pharyngeus in the posterior pillar. I am equally convinced of the value of dividing the levator palati. There is ample experience to show that union has taken place, despite muscular action to the contrary. The experience of Roux and others has proved that; but I know of no experience equal to my own to prove what I contend for—namely, that, by taking off the muscular action for a time, union can be rendered more certain than by leaving the muscles untouched. Since I entertained the views referred to, I have operated on 134 cases, and of these 129 have been successful; in two union failed entirely; and in three it was so partial and imperfect that I placed them as unsuccessful. Forty-five of these operations have been performed in public; in a considerable number an aperture has been left in the hard palate, and much benefit has been derived, in many such cases, from the use of an obturator.

I have never attempted the operation in infancy. I consider instances most favourable at or above the age of puberty; but I have frequently operated successfully at ages between ten and fifteen, where patients have been steady and courageous. I have never operated under chloroform; and whilst I do not deny the possibility of doing so, and cases of the kind have been recorded, I am of opinion that, as a rule, it is absolutely requisite to have the patient conscious, so that he may facilitate the steps in a variety of ways.

This enumeration includes all kinds of cases, and refers chiefly to the cleft in the soft palate. In many instances of cleft in the hard palate it is utterly impossible to contend against nature; and even in the soft the parts are occasionally so scanty that there is literally no material to work upon. In so far as I know, the greatest success recorded, before my own views were made public, was that achieved by Mutter, of Philadelphia. In 1843 he had operated successfully in nineteen cases out of twenty; and Mr. J. Mason Warren, of Boston, had been successful in thirteen out of fourteen. These instances are both of hard and soft palate. What may have been their success since I cannot say. It has been related of Roux, since his death, that he had operated on 120 cases, and that of these one in every three had failed. I attribute Roux's comparative want of success to the circumstance that the levator-palati and the back part of the palato-pharyngeus were left untouched; and I consider that Warren's success may have resulted from the free incisions which he made through the palate, outside the pillars of the fauces. My own success, if I may so call it, I attribute chiefly to the division of the levator-palati; and next, to the relaxation which the wound for that division involves. For mere relaxation, the incision of Dieffenbach, which I show here, is probably the most perfect. I know that it has been particularly successful in Mr. Skey's hands, and in Mr. Pollock's; but, with all deference, I am still disposed, from all I know of the subject, to prefer a free incision above the soft palate, whereby the levator-palati may be divided to a certainty. In addition, I look upon this wound as of great service in this respect. The lymph effused upon it acts as a splint, whereby the palate is kept fixed as on a board, until union in the mesial line is complete.

As to attitude in this operation, the patient may sit or lie, as may best suit convenience. Latterly I have made most use of the recumbent; I find that the head can be kept best on the same line in this position; and as regards my own views on the anatomy and physiology of the parts concerned, I deem the subject of some importance. For instance, if the patient sits, with the head slightly thrown backwards, the palato-pharyngei, when irritated, pull the soft palate downwards, as my own do at the present time, in the attitude my head is in, so as to leave a space between the palate and the base of the cranium; but if the head be thrown far backwards, as I throw it now, the axis of action is altered, and these muscles draw the soft parts upwards, or, in other words, bring the soft palate towards the base of the cranium, and thus add to the difficulties of the Surgeon, by limiting the space above the soft palate, where he has to work with needles in introducing sutures. I say upwards, with reference to the base of the skull; but in reality, when the head is much bent, it would be drawing downwards, as it were. Here, as in hare-lip, the Surgeon has generally stood before the patient; but I invariably select his right side in preference to all other places.

The grand practical object of this operation is to improve the voice and articulation. Defective deglutition from this malformation is what attracts the mother's or nurse's attention in early years. The cries of infancy are in nowise peculiar in tone; but when definite articulation commences, or, rather, should commence, the value of an entire palate is then appreciated. The air and sound, in passing outwards from the larynx, escape in part through the nostrils, from the split in the palate; a nasal twang is the result, and articulation, as in the normal state of the parts, is impossible. Immediately after operation the modification in the voice can be at once detected. It is customary to keep those operated upon from speaking for eight or ten days; it is, however, a needless restriction, as regards my operation. In reality, few care to speak under the circumstances; yet I do not think it would do harm. In the course of eight or ten days, when the fever or distress following the operation is gone, the tone of the voice is at once perceived to be changed for the better; improved articulation, however, comes more slowly; years, many years, are required for distinct articulation, when the whole organs are, to all appearance, in perfection; and after the most successful operation for cleft palate months and years are required to alter defective sounds. Voice and speech have to be modified anew. With some the changes come slowly and sluggishly; with others they are so rapid and perfect that in a few years the original defect cannot be detected, excepting by a practised ear.

PARIS ACADÉMIÉ DES SCIENCES.—M. Magnus, of Berlin, was nominated by a large majority as Correspondent Member for the section of Physics, vacant by the death of Professor Barlow. The other candidates were—Dove, Berlin; Henry, Philadelphia; Jacobi, St. Petersburgh; Joule, Manchester; Kirchoff, Heidelberg; Plucker, Bonn; Riess, Berlin; Stokes, Cambridge; and Weber, Göttingen—a truly noble phalanx the Academy had to choose from.

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ORIGINAL COMMUNICATIONS.

TWO CASES OF FRACTURE OF THE SKULL.

By JAMES DONNET, M.D.,
Staff-Surgeon Royal Naval Hospital, Lisbon.

(Continued from page 665.)

The following case of fracture of the base of the skull contrasts with the former, and will be read with interest:—

Thomas P., aged 34, one of the carpenter's crew of H.M.S. *Defence*, was admitted into this Hospital on January 11, 1863, his ship having just come into the river Tagus.

From the history which accompanies the patient, it appears that whilst employed on the evening of January 8, about 11 p.m., the night being very dark, he tripped and fell through the ash-shoot, which leads from the upper deck into the stoke-hole—a height of about thirty-five feet. He was picked up in a state of insensibility and conveyed to the sick bay. In less than half an hour after accident voluntary motion was restored, and shortly after he became sensible to external impressions. Breathing stertorous at times. Vomiting occurred at 1 a.m. of the 9th, and at 5 a.m. of the same day he spoke, and complained of much pain in the right temple. The pulse was full, slow, and labouring. The temporal arteries on both sides were opened at an interval of several hours, and about three ounces of blood taken from each. His bowels were opened by means of croton oil, and the head was kept cool.

On admission into this Hospital on January 11, he is able to get into bed without assistance. He complains of much pain of head, which he refers chiefly to the forehead over the orbits. The eyelids are heavy, and give a vacant expression to his countenance. Pupils are sensible to light. There is strabismus, and likewise diplopia. Pulse, 56, beating measuredly, but not full. There is no oozing of serum nor blood from ears or nose. Bowels are loose from the action of the croton oil administered on board. A cold lotion was applied to the head, and quiet was strictly enjoined.

January 14.—Pulse, 60. He sees objects double when both eyes are opened and fixed; but by closing one eye he is enabled to see the object single, and the features of persons become likewise distinguishable.

15th.—To-day there is confusion of ideas; he is incapable of using the words he wishes; talks incoherently, and seems conscious that he does so. Eight leeches to be applied to temples and sinapisms to the calves of the legs. Bowels are open.

16th.—Less strabismus; pupils are sensible to light; attempted several times to get out of bed; yawns very frequently; put his hand to his head and says, "Take it away;" talks incoherently, and in a tone almost inaudible. The leeches applied yesterday bled freely.

17th.—Pulse 64; bowels opened once; repeats all the questions put to him, but does not answer; he relapses after being questioned into a state of semi-stupor. The head is kept cool by means of cold lotions.

18th, 8.30 a.m.—Appears more collected this morning and has a less stupid look; puts his hand to his forehead and to back of head to show where the pain is. Recognised one of his shipmates, and was able to name the ship to which he belonged. At 1 p.m., breathing having become laboured, I was sent for. I found him comatose, breathing laboured, pupils dilated; shortly after he foamed at mouth; pulse became irregular, quick, mounting to 170 per minute, with intermissions of 10, 15, and 20 beats, then hurrying on at the rate of 168 and 170 per minute; pupils are insensible to light; there are some convulsive movements of the upper extremities. The face then became congested; respiratory movements laboured; large crepitation in bronchi and trachea, with discharge of frothy mucus from the nose and mouth. This state lasted for twenty minutes. Sinapisms were applied to thighs and legs; an injection of turpentine and castor oil administered; cold lotions and affusions to the head. At 2.50 p.m. he became moribund, and he died at 3 p.m.

Post-mortem Examination Twenty Hours after Death.—Rigor mortis well pronounced. Hypostases of dependent parts of body well marked. On cutting through scalp blood is found effused in its cellular tissue. On raising calvarium the dura mater presented a bluish-black appearance all over, but more especially on the left side. A clot of blood two inches in diameter each way, and about three-quarters of an inch in thickness, was found on the lateral and posterior part of dura mater. On slitting up and raising the dura mater a sheet of blood covers the surface of the left hemisphere; the greatest thickness of this clot corresponds to that of the clot described above. The base of the skull between dura mater and arachnoid membrane contains much clotted blood, especially in the middle fossa. The left middle lobe of cerebrum is torn, and several portions of cerebral matter are attached to the inner surface of the dura mater, commingled with clots of blood. A fracture commences at the posterior part of the right parietal bone, extends to lambdoidal suture of the left side passes along the course of the suture as far as the posterior inferior angle of the left parietal bone, and radiates forwards and inwards to the foramen lacerum, and upwards and outwards as far as middle meningeal groove, where it appears to terminate.

Those who have had but little experience in cases of fracture of the base of the skull are astonished to find the extent of injuries a post-mortem examination reveals, and wonder that such severe mischief should accompany the apparently insignificant symptoms observed during life.

In the case of T. P., the measured slow pulse, the strabismus and diplopia; the idiotic expression of countenance; the frequent yawnings; the loss of power of saying the right thing, with the general restlessness, betokened injuries of a very severe nature, but the quantity of blood and the great extent over which it was effused, with the laceration of the middle lobes of the cerebrum and the fracture, which not only was of great extent, but ran along the course of the lambdoidal suture—an occurrence not frequently met with—were injuries greater than seemed warranted by the symptoms observed during life.

Had the post-mortem examination alone been witnessed by me, without any knowledge of the previous history of the patient, I should have said, "This man died immediately after the accident;" or I might have qualified it by saying "that he had lived a few hours after the accident, partly recalled to a state of consciousness after recovery from the first shock, but chiefly in a comatose state, with total or partial loss of sensibility and motion." The patient on the morning preceding his death appeared more collected than he had been since his admission, was able to answer questions, and did not relapse into that state of semi-stupor which was observed the day before; he even remembered one of his shipmates, and mentioned the name of the ship to which he himself belonged—symptoms which aroused a degree of hope, and discarded any suspicion as to so rapid a dissolution. The epileptic fit which followed shortly after, and which immediately preceded his death, must have been caused by a further effusion of blood occurring at the time, and pressing upon the vital centres; the quantity of blood found at the base of the cavity of the cranium seemed to warrant this opinion,

This case is so far instructive that it teaches us to consider all injuries of the head with just caution, and its study tends to make us guarded in the diagnosis and prognosis of similar cases.

ODONTOLOGICAL SOCIETY.—The last meeting of the Session was held on the 6th at the Society's Rooms, 32, Soho-square, the President, E. Saunders, Esq., in the chair. Various presentations were made to the library and museum. Mr. Coleman read a case of closure of the jaw that was successfully treated at the Dental Hospital by Mr. Cartwright. Dr. Thomas Ballard read a paper "On the Constitutional Ill-effects of Fruitless Sucking, and the Diagnostic Value of Deformed Jaws in relation thereto." The adjourned discussion on the paper read at the previous meeting by Mr. Cartwright was resumed in conjunction with that on Dr. Ballard's paper. The thanks of the Society were unanimously voted to Dr. Ballard, and the Society adjourned to November.

THE Governors of the Apothecaries' Hall of Ireland entertained at dinner, on Thursday, the 16th inst., at his residence, Harcourt-street, Dublin, the Court of Directors and Examiners of the Hall, and also the following distinguished members of the Profession:—Dr. Stokes, Physician in Ordinary to the Queen in Ireland; Dr. Jacob, President of the Royal College of Surgeons; Dr. Wilmot, Vice-President of the Royal College of Surgeons; Dr. Adams, Surgeon in Ordinary to the Queen in Ireland; Sir William Wild, Dr. Ireland, Dr. Banks, Dr. Bigger, Dr. Kidd, etc. Dr. Corrigan, President of the King and Queen's College of Physicians, was, in consequence of a previous engagement, unavoidably absent on this occasion.

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SATURDAY, JUNE 25.

SCIENCE AT THE COLLEGE OF SURGEONS.

The history of institutions for promoting the professions of civilised society is marked by stages as distinct as any which the geologist can discover in the history of the earth's crust. First there is a period of chaos, during which every one does what is right in his own eyes, and gives himself any title that suits him. At a certain epoch any one may practise as Surgeon, dentist, chemist, actuary, engineer, surveyor, as the case may be, and assume any of these titles respectively at will. The next stage in this free country is that of voluntary association. The best men amongst the Surgeons, or dentists, or chemists, or architects form themselves into a society, institute, college, or guild for discussion, co-operation, and mutual protection. As time goes on, it becomes a creditable thing for all the young men in each respective profession to join the voluntary institute; and then follows the next step. Public authority is appealed to, and gives the voluntary association a legally recognised existence—a charter, common seal, the right to sue, and the like. As a next step, the members of the chartered body claim for themselves the preference in all public appointments, or perhaps the Government may decree that preference shall be given to them in such appointments. And now comes the next and most important stage—that of exclusive privileges. The chartered body next claims, not only that its members are the best in their particular calling, but that they are the only ones fit to practise at all, or to use a designation implying that they are fit to do so. The Medical body has passed through all these stages; and any one who will cast a glance at the history of the pharmaceutical chemists, of the dentists, architects, district surveyors, and schoolmasters may see in them examples of other professional bodies which are step by step attaining to the same grade of organisation.

But exclusive privileges and lucrative offices under corporations can only be maintained on grounds of public utility; and there comes unluckily, a stage in the history of most corporations, when the love of science becomes mingled with love for the loaves and fishes; and when the corporation decomposes, as it were, into separate cliques and factions, each with interests adverse to that of the main body.

Such is now the position of the Royal College of Surgeons. There is a fight going on for seats in the Council—the post of honour—and through this, for seats in the Court of Examiners—the post of profit.

The chief and dominant,—we may truly say, justly dominant party, is that of the Surgeons to London Hospitals. No one disputes their claim to the largest share of College honours and emoluments; but they have no right to the whole.

A second party is that of scientific men, who, though Surgeons, yet make their Surgical pursuits subordinate to those of anatomy and physiology. It is not too much to say of anatomy — exact, minute anatomy — that it is in the first place invaluable as a mental discipline; secondly, that it is the basis on which sound Surgery rests; and that the enlargement of the bounds of anatomical research, by means of the microscope, follows in necessary order the cultivation of the minute naked eye anatomy, and that it may, and probably will, do for *Medicine* in another age, what the study of parts visible to the naked eye has done for *Surgery* in this. And here let us allude to Professor Fergusson's lectures. Even he, a genial, good-tempered man, a scientific anatomist, *par excellence*, whilst demonstrating the improvements he had effected in an important Surgical operation by means of his own laborious dissections—dissections which probably some wise head of forty years past might have rebuked as impracticable and unnecessarily minute—could not forbear a fling at "scientific" anatomy. He had raised a laugh, too, at microscopic anatomy in his first lecture! This little incident shows the prevailing sentiment. Nevertheless, anatomy, in its widest sense, is of such unspeakable importance as a branch of the student's education; it is a pursuit which may so well occupy a man's life, and not merely the few years of leisure before a Hospital Surgeon gets into practice, that it ought to be represented in the Council, without reference to the fact whether the scientific anatomist hold a Hospital appointment, or even practise Surgery at all. Such men as Sharpey, Kiernan, Owen, Huxley, Gulliver, Ellis, though they might never feel a pulse nor handle a bistoury, ought to be found on the Court of Examiners of a College of Surgeons, if the whole of Surgery is to be there represented.

A third party who ought to be represented are the Hospital Surgeons of the great towns of England. The Royal College of Surgeons of *England* ought not to be a mere *London* College. There are several points in the Charter which ought to be altered, in order to give the country Fellows greater facilities of voting. But this matter is in their own hands. If they prefer not to elect councillors from amongst themselves, that is their own affair.

Lastly, the Council of the College and Court of Examiners ought to include some representatives of Military and Naval Surgery. It was, we believe, one of the earliest customs of the old Company, from which sprung the present College, that the King's Serjeant-Surgeon, whose duty it was to attend on the Royal person in war, should be a member of the Court of Assistants. Although our Queen does not go forth at the head of the army, it is quite right that the Surgeons who attend her soldiers and sailors, and whose functions are of such tremendous importance, should have every stimulus to exertion, and should not be shut out from College honours by any technical difficulty.

Let us ask this plain question: If the Royal College of Surgeons of England were a perfect representative of English Surgery, and its Fellows fulfilled the duties of Teachers and Examiners completely, what need would there be of the College of Military Surgery at Netley?—of a second Court of Examiners?—and what scope would there be for the damaging, but unanswered, criticisms of the younger upon the work of the elder Institution?

THE "MEDICAL TIMES AND GAZETTE" FOR 1864.

If ever it were allowable for the conductors of a journal to boast, we think that we may do so, as we close our first volume for 1864. Seldom has any Medical periodical supplied its readers with information so weighty, varied, and original. We may refer first to the lectures on Acupressure—one of many inventions of the versatile and thoroughly practical Professor of Midwifery at Edinburgh, the future value of which is confidently prognosticated by Professor Fergusson in his second lecture at the College of Surgeons. Professor Garrod's lectures on the British Pharmacopœia were greedily devoured by Practitioners, who were delighted, not, indeed, with his able defence and explanations of that unpopular book, but with the multiplicity of shrewd practical hints and

evidences of fair experimental research in therapeutics with which they abound. The demonstration of the valuelessness of arnica was universally considered a convincing proof of Dr. Garrod's acuteness as a scientific therapeutist, and a condemnation of the silly favouritism of the Pharmacopœia compilers, who ventured to give this worthless drug a place which they denied to many others of larger use and repute. The lectures of Professor Harley on the Urine, and the series of essays by Mr. John Wood on Hernia bring before the Practitioner those details of his daily duties with which he ought to be most minutely familiar; whilst those remarkable lectures by Professor Helmholtz on Conservation of Energy will give him a birdseye view of the most recondite speculations of philosophers as to the connexion of life with the manifestations of other force in the universe. The reports of Professor Huxley's lectures will interest the comparative anatomist. We need not mention the lectures by Professor Fergusson, now in progress, nor yet the contributions which come from Paget, Rev. S. Haughton, J. W. Ogle (whose case of Tetanus, by the bye, is the latest authority on the latest plan of treatment), Priestley, Peacock, Handfield Jones, Le Gros Clark, Murchison, Ramskill, Laycock, F. Jordan, Bulley, Walker, Althaus (on the trichina) and J. Z. Laurence. The "Medical History of England" has been the means of raising a controversy, which is by no means settled yet, on the actual mortality of Hospitals, and will serve as the standard account of the position and working of our Profession for many a day. When we mention briefly our own efforts to vindicate the honour of our Profession, and to make good its claims to be an honourable, humane, and scientific pursuit, and not a mere trade, we are sure that our readers will agree that we have given them a good volume, and one which will be often taken down for reference.

THE WEEK.

THE LATE PROFESSOR MILLER.

In another column will be found an account of this estimable and lamented Professor, who has been snatched away, like so many others, in the prime of life, and at the very time when —so popular, so beloved by his friends and patients, so forward in every good work—he should have been most able to serve mankind by his great and undoubted talents and beneficence. Is there any warning or moral to be drawn from his career? We think there is. It is currently said that he was killed by a review of his "System of Surgery," which appeared two months ago in a contemporary weekly Medical journal. This, of course, is an exaggeration; yet there is no doubt that he was deeply mortified, and that this accidental annoyance may have given the last shock to a nervous system worn out and ready to fall into disease at the smallest provocation. We have read the review in question, and believe it to be temperate, courteous, and altogether just. For our own parts, having had some experience with reviewers and the reviewed, we can well understand that a man may be nervous about any *book* that he brings out. It is a grave thing to do; but if a man of sense is himself satisfied that his book is a good one, and that he has done his best with it, he may rest on the justice of the public and on his own self-consciousness; and may snap his fingers at any unjust review, even should one appear. The really strong men who write good books don't care for reviews; it is the weak men who write poor books who cry out at a review, even though their own books may contain bitter assaults upon half a-dozen of their contemporaries. And Professor Miller was essentially a weak man, so far as he may be judged by his writings; brilliant, but not solid or deep; possessing immense powers of verbal manipulation, but apparently not so capable of sound and solid argumentation. His style was quite that of a popular preacher who addresses women. In noticing a work of his, entitled "Nephalism," about three years ago, we were painfully struck with the unsoundness, the recklessness of his statements. Even then, probably, a too excitable and anæmic brain, not quietly working at its legitimate occupation, but fretting with all sorts of religious controversy, such as is known only in Scotland, was falling into disease. And in one of his pet doctrines lay a fatal source of mischief. He was a teetotaller, and consequently did not give his brain that rest and refreshment, that power of discarding and wiping out irritating and exciting trains of thought, which wine, temperately used, will confer. Had he taken a little wine, and excited himself less, he would have written a better book, and might have laughed at reviewers.

THE TRUE HERO OF THE "ALABAMA."

This too celebrated ship has finished her career, and no part of it was so creditable as its close. To attack unarmed merchantmen, and trust to her heels for escape from fighting ships, may have been compelled by the necessities of war, but was not a sort of work to boast of. On the other hand, to come out for honour's sake and fight an antagonist better armed was a deed more worthy of a hero. Our readers will be glad to learn that Captain Semmes's wound is not likely to prove serious. He was struck by a splinter from a shell which burst near him, carrying off the arm of one of his sailors, and inflicting on himself some injury to the soft parts of the back of the right hand. There is a good deal of pain and puffy swelling, but he is going on well, and we have little doubt that he is quite safe under the care and skill of Dr. Wiblin, of Southampton, of whom Professor Fergusson made mention in his first lecture at the College. Such of the officers and men, too, as landed at Southampton were tolerably free from injury; as was evident from the fact that they owed their escape to their powers of swimming. Nine men were killed and twenty-one wounded during the action, and the latter were received on board the *Kearsage* and taken to Cherbourg, where they were landed with her own wounded, and consigned to the charge of the Hospital authorities of that port. But alas! the real hero of the day was lost! As the ship was sinking, and the boats were being filled with the wounded, a sailor unhurt tried to get into one of them. The Surgeon held him back. "See," he said, "I want to save my life as much as you do, but let the wounded be saved first." "Doctor," said the officer in the boat, "we can make room for you." "I won't peril the wounded men," was his reply. The Surgeon was the only officer lost. He died as an Englishman should: in the discharge of his duties. His name was Ernest George Thomas Llewellyn, M.R.C.S. 1859, son of the Rev. David Llewellyn, appointed in 1835 Rector of Puddington, near Crediton, a parish of 210 souls. Nelson was son of a country curate. We can imagine a young man rushing into any wild life to escape from the monotony of Puddington. We can but give utterance to the feeling of disgust with which we regard the official report of the action rendered by Captain Semmes to Mr. Mason, agent for the Confederate Government, and published in the *Times* of June 23. He gives due credit to his first lieutenant, Mr. Kell; not one word of condolence for the loss of poor Llewellyn.

MIDDLE CLASS EDUCATION.

It is a remarkable fact—one of the anomalies of our system—that the classes receiving extrinsic help in the education of their children are at the two extremities of the social scale. Our great public schools to which the higher classes send their sons have been made what they are by royal endowments, and from time to time their condition is scrutinised and their defects ventilated by a royal commission and Parliamentary discussion. On the other hand, a costly national machinery is provided for educating the children of the labouring man. There is a Board of Commissioners with a minister of the Crown at their head, and a legion of inspectors and schoolmasters paid out of the public purse, and directly under the supervision of Government. The middle is the only class who are left in this matter entirely to their own resources of

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money and intelligence. It is not necessary to define who the middle class are. In this country sharp social definitions are impossible. We may consider them as including persons who are capable of paying from £25 to £40 annually for a child's maintenance and education. In such a category many a man in our Profession finds himself—all, in fact, who are blessed with large families and moderate incomes. A doctor who has six children to educate, and a practice of £700 a-year, with its contingent expenses to meet, cannot well spare more than £200 for his children's training, or something less than £35 a-year each. Where is he to send his boys? The State does not help him to answer the question. If he could pay six times that sum, or if he could pay nothing at all, there would be no difficulty about the matter. But as he is in neither of these positions, he is left to chance and the advertising columns of the *Times*. The Royal Medical Benevolent College is above his mark. Our correspondent of last week, Mr. Manby, in his genuine and earnest letter, told a home truth when he wrote:—"I am again ready to admit that there a very great proportion of needy men amongst us. I unhappily know some, and I chance also to know those who would like to send a son or sons to Epsom; but £40, with travelling and other contingencies, after all, they say, 'is no great boon; we must be content to send our boys to a second or third class commercial school.'" But even if the Epsom College were all it ought to be—if it gave a sound classical and mathematical education, with suitable board and lodging, for £30 a-year to the sons of Medical men, it would meet only a very small part of the want: nine-tenths of our boys would still be at the mercy of irresponsible speculators and under-bred and half-educated ushers. In France the State interposes. Take, for instance, the Lyceum at Toulouse, which has been made the text of Mr. Arnold's book, "*A French Eton*." There you have from 300 to 400 scholars, partly boarders, partly day scholars. The boarders pay from £32 to £36 a-year each, and for it they get an excellent education—classical, mathematical, and scientific—board, books, writing materials, the care of their wardrobe, Medical attendance, and washing. This is, in fact, a Government establishment—a public school for the middle classes—partly supported by the public money. We do not expect that our Government will interfere to provide similar establishments, although sons of the trading and professional classes have, at least, the same claims as those of others on the care of our rulers. The *laisser aller* creed is too fashionable with us at present. But there is already a machinery existing which might be utilised for the purpose. There are some hundreds of grammar schools which are in the enjoyment of endowments from various sources, and which are never heard of beyond the country towns where they slumber away peacefully year after year under the shadow of the parish church. We are glad to see that the Social Science Association have directed attention to this view of the matter. On Saturday, June 18, a deputation, which included Lord Brougham, Earl Fortescue, and the Bishop of London, waited on Lord Palmerston "to represent the expediency of issuing a Royal Commission to inquire into the grammar schools and other endowed schools in the United Kingdom not yet reported upon, and generally into the state of education of the middle classes." Lord Palmerston has promised to give his attention to the subject. We hope that, whatever Government may be in power, the Social Science Association will not allow this matter to rest. If they succeed in getting a Commission appointed they will deserve the thanks of the whole trading, manufacturing, and professional bodies, and of none more than the Profession of Medicine.

PARLIAMENTARY.

In the House of Lords on Thursday, June 16, the Earl of Carnarvon asked when the report of the Commissioners would be produced respecting the death of a needlewoman in a millinery establishment at the West-end, partly by overwork, and partly by the abominable and discreditable condition of the room in which she was employed.

Earl Granville promised that the report should forthwith be presented.

On Friday, June 17, the Lord Chancellor said that, after careful consideration, he for the present withdrew all further consideration of the County Courts Amendment Bill.

Various clauses in the Penal Servitude Acts Amendment Bill were agreed to.

The House of Commons at the morning sitting was occupied, in committee, in discussing the details of the Factory Acts Extension Bill.

The proposal of the Government to exclude from the operation of the Bill, by omitting from the first schedule, persons employed in certain processes in warehouses and in packing textile fabrics gave rise to a debate.

Ultimately this amendment was withdrawn, and the Chairman was ordered to report progress, to sit again on Monday week, Mr. Bruce undertaking in the meantime to consider the best mode of dealing with this part of the measure.

In the evening, on the order for going into a Committee of Supply,

Sir J. Hay rose to move a resolution "condemning the want of foresight displayed by Her Majesty's Government in landing forces on the Gold coast for the purpose of waging war against the King of Ashantee, without making any sufficient provision for the preservation of their health." Our necessary limitation as to space prevents our reporting the whole of Sir J. Hay's remarkable statement; we, therefore, extract such portions of his speech as refer to the neglect of the commissariat and Medical departments, for which the Government authorities are responsible, and the conditions which led to the sacrifice of so many English officers and men. Sir J. Hay, in describing the circumstances under which the troops were placed, said:—

"Cape Coast Castle, as was well known, was a settlement 1100 miles from Sierra Leone, the only civilised town, if even it deserved that title, in that part of the world. It was an old castle, built originally by the Portuguese, upon a granite rock which projected into the sea. To the eastward of it was a small river, which during the rains was a flood, but during the greater part of the year was a swamp, and the water of which was not fit for the use either of human beings or of animals. Along the sandy spit between the river and the shore extended the town of Cape Coast Castle, principally inhabited by a native population, under the protection of the fort, which generally numbered about 10,000 persons. The water for supplying the town was collected in tanks, of which there was one to every house, during the rainy season; and the water so collected was supposed to be sufficient to supply the normal wants of the population during the dry portion of the year. The fort of Cape Coast formerly had very large and ample tanks; but many of them were now out of repair, and those that were in good condition were only sufficient to supply with water a force of about 250 men, which was the usual garrison. It was true that since these operations commenced, some six or seven months after the troops were sent there, in the month of January, her Majesty's Government sent a distilling apparatus to Cape Coast Castle, to supply the troops, but unfortunately that apparatus was not in order until early in May, so that there was no additional supply of water for the additional influx of troops until the rainy season had again set in, and the necessity for the distilling apparatus was not so apparent as it had been. There were at Cape Coast Castle no animals suitable for the food of man, no sheep or cattle. There was no herbage to feed them, and as soon as cattle were brought to the settlement they were killed. As much of their flesh as possible was consumed fresh, and the rest was salted for future use. The food supplied to the troops was, therefore, mainly salt provisions and navy biscuit."

After showing that blame was not to be attributed to the governor, and giving an account of the original cause of the war—a runaway slave who had stolen some property belonging to the King of Ashantee, and had taken refuge within the British territory, he continued:—

"He did not question the policy which her Majesty's Government had thought proper to adopt, but having decided to institute war upon the Gold Coast, he was entitled to inquire how they had conducted it. One would imagine that

every comfort for troops serving in such a deadly climate would have been immediately sent out—(cheers)—and as there was no water there, and no supplies could be obtained on the spot, one would imagine that roomy and ample transports conveying the expedition would have been moored in the anchorage off Cape Coast Castle to afford a base of operations; that steam transports would have been forthcoming to convey fresh provisions from Sierra Leone, or any other place from which it was thought desirable to draw supplies; and further, that Hospital ships to receive the sick, and steamers to take them away to a position where they might recover from disease or from gunshot wounds, would have been provided. (Hear.) It would also have been desirable that the steam transports should have been employed, as in the Crimea, in distilling water for the use of the troops. With such appliances, the war, though still dangerous and deadly, would not have been as fatal as it proved; and her Majesty's Government, having made up their minds to send 1800 men upon such duty, were bound to supply them with materials other than a distilling apparatus that would not work, brackish water remaining for the use of 200 men, and salt provisions, while the thermometer stood at 94 in the shade. (Cheers.) He did not wish to state the case more strongly than it deserved; he did not wish to make an unjust attack upon any department; but as the war was estimated to have cost £14,000 a month, he must say that all which could be necessary for the safety of the troops or the efficient conduct of hostilities ought to have been supplied; and that her Majesty's Government, which had thought proper to incur this expense without the sanction, and, indeed, without the knowledge of the House, would have done well either to have consulted the House or else not to have starved the war and killed the men. (Hear.) War to be successful ought to be conducted so as to bring matters to an issue as speedily as possible; but in the present case it seemed that this maxim, and indeed the dictates of common sense, had been lost sight of."

He went on to describe the circumstances under which an expeditionary force under Colonel Conran, and a volunteer force under Lieutenant Hay were despatched into the interior. To the latter no Medical officer was attached. One had been promised by the Governor, but he was not sent,—

"So that the officers and men were there without any Medical advice, the blame of which, however, did not rest with the officers who despatched them. Those officers volunteered for that service, and there were no Medical men to send. Her Majesty's Government sent out twelve Medical officers. Three were dead, three invalided, and the remaining six had been described to him as walking skeletons who had been left to do duty at Cape Coast Castle." . . . . .

"Throughout last winter there was great sickness at Cape Coast Castle. He had examined the return laid on the table, and he had endeavoured to ascertain how many had died. The return gave 64 officers and 1745 men, and it gave 1348 men as fit for duty. There must, however, be some mistake here, because there were 35 out of the 64 officers who were dead or invalided, and 9 were ineffective, in addition to those in Hospital in Cape Coast Castle. Out of 1745 men 1348 were said to be efficient. That left 397 to be accounted for, whereas the return of the number of men dead and invalided was 127, which left 270 men not accounted for. They were "missing," in military parlance, which meant dead or deserted. As it was not likely they would desert to the King of Ashantee, he came to the other conclusion. On the 9th of April this year the *Tamar* was sent to take reinforcements from the West Indies to Cape Coast Castle. She took 661 men and 29 officers. This did not exactly agree with the official return, but he adhered to his own information. At that time there were troops at various places, but there were between 200 and 300 men sick at Cape Coast Castle, and 15 officers also ill in the Castle. The *Tamar* landed her men on the beach of Cape Coast Castle. She brought no provision for the mass of wretchedness there. The troops already there were in native huts, and those brought by the *Tamar* were marched to the front and put under canvas. Before the *Tamar* left 120 of the men she brought were down with sickness. The Medical officer said he would have given his own life to have had those poor men put on board the *Tamar*. Captain Stirling, an excellent officer, took compassion on a poor lady, and against orders took her to Gibraltar and saved her life. The *Tamar* had orders to have nothing to do with the expedition. With the usual red-tape routine, she was ordered, after landing her troops, immediately to proceed on another service, and to take a regiment that was going to Malta, and these poor sick men from the ramparts saw her steaming away for a western sky, and with her the last hope shrunk within their breasts. They nearly all died. One would have imagined that the Government, when sending a steamship to this part of the world where there was no one to give orders—for the Governor was gone to sea, ill, Colonel Conran was up the country, and the commanding officer at Cape Coast Castle was delirious with fever—would have given orders to the captain of the *Tamar* to bring away with him any men who might have been wounded or suffering from fever. But the captain had positive orders to proceed on another service. The captain was probably not aware of what was going on on shore, and he steamed away in obedience to his orders, leaving these men to die. It would be rather too painful to him to read the names of the officers whose services had been in this manner lost to their country. Some few men recovered; but he had been told by a Medical man that the effect of the fever was so debilitating upon the constitution that those who died were almost happier than those who lived. When the last mail left there—for the African mail called there—there were nine officers and twenty-five men left in the apology for an Hospital in Cape Coast Castle, who were living on brackish water and salt beef."

In the debate which followed Government was defended by the Marquis of Hartington, Lord A. Churchill, Lord Palmerston, and other speakers. A narrow majority of seven in a very full house saved the Cabinet from a vote of censure. But it was clearly felt that the allegations of Sir J. Hay were entirely proved, and in whatever quarter the blame really lay, the whole transaction afforded a flagrant instance of official mismanagement and neglect, unrivalled since the Crimea.

The Chimney Sweepers Regulation Bill was read a second time.

In the House of Commons, on Monday, June 20, the Government Annuities, etc., Bill was read a third time and passed.

On Wednesday, June 22, the House went again into committee upon the Weights and Measures (Metric System) Bill, taking up the discussion at the new clauses, commencing at the second clause with the substituted schedule of tables of values of the denominations of weights and measures on the metrical system, expressed by means of the legalised denominations, the new clauses being framed in concurrence with the Government.

The clauses and schedule were agreed to, after considerable discussion, without amendment.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF BRIGHTON.

THE BRIGHTON AND HOVE DISPENSARY.

The Brighton and Hove Dispensary, situated in the Queen's-road, is a thriving and very useful institution. The Dispensary-house is a fine building, and would admit of being applied to the reception of six or eight in-patients. Indeed, at the present time it is under consideration whether it would not be advisable to open two wards in the Dispensary for the purpose, at least, of admitting urgent cases, such as severe accidents for which an operation may be demanded. The Dispensary, once called the Dispensary and General Infirmary, was the parent Medical institution of Brighton, having been founded so early as 1809. Recently a branch Dispensary has been opened in the Farm-road, Hove. The Dispensary affords Medical relief to about 12,000 poor each year. These are not only supplied with Medical advice and medicines, but with extra diet in special cases. This latter arrangement, which is novel, I think, in Dispensary management, is found to be of very great service, and is conducted on a simple method. There is a fund connected with the Dispensary called the Jubilee and Samaritan Fund, of which Mr. J. G. Young is the treasurer. The fund is placed under the supervision of a committee of management, who apply it to the purchase of food for the poor under the special directions of the Medical officers. In the treatment of many cases occurring in Dispensary practice where food rather than medicine is required, the hands of the Medical officers of this Dispensary are thus unbound, and they are enabled, as Medical

officers of institutions everywhere ought to be, to use food for physic when food is the true remedy.

THE MEDICAL STAFF.

The Medical staff of the Brighton and Hove Dispensary is composed of the following members:—Dr. King, Consulting-Physician. B. T. Seabrook, Esq., Consulting-Surgeon. Dr. Hall, Dr. Addison, Dr. Phillips, Dr. Withers Moore, Physicians in Ordinary. J. P. M. Smith, Esq., Joseph Dixon, Esq., R. Branwell, Esq., J. J. Murray, Esq., Surgeons in Ordinary. Mr. J. H. Browne, Honorary Dentist. Mr. Crawford J. Pocock, House-Surgeon. Mr. R. Glaisyer, Dispenser. Mr. T. J. Cooper and Dr. Barker are the District Medical Officers. At the Western Branch, 4, Farm-road, Hove, Mr. Badcock is the Resident Medical Officer.

The practice of the Dispensary affords a good insight into the more important disorders affecting the poor of Brighton. From a table of the mortality of the patients attending the Dispensary in the year 1863, which has been drawn up for me with much care by the House-Surgeon, Crawford J. Pocock, Esq., I find that the leading fatal disease is consumption. In 1863 this disorder yielded 15 per cent. of the fatal cases treated. Next to this stands measles and its sequelæ, then scrofula, and after these scarlet fever and its sequelæ. Inflammation of the lungs and of the pleura holds rather an important place, causing over 6 per cent. of deaths; and bronchitis is little less formidable. I need not analyse the facts further, but may give the table itself, placing the diseases in order according to their fatality. The table shows that the mortality is at the rate of rather more than 2·91 per cent., a mortality comparatively low.

Causes of Death.

	Queen's-road.	Western branch.	Total.
Consumption	46	8	54
Measles and sequelæ	37	11	48
Scrofula	33	7	40
Scarlatina and sequelæ	20	19	39
Inflammation of lung and pleura	19	2	21
Bronchitis	17	3	20
Natural decay	17	1	18
Diseases of heart	16	1	17
Convulsions, dentition, etc.	15	—	15
Water on brain	12	—	12
Diarrhœa	10	1	11
Croup	7	—	7
Inflammation of brain	1	4	5
Disease of liver	4	—	4
Disease of kidney	3	1	4
Apoplexy	4	—	4
Fever	3	1	4
Congenital syphilis	4	—	4
Cancer	4	—	4
Dropsy	3	—	3
Small-pox (never vaccinated)	3	—	3
Whooping cough	3	—	3
Obscure abdominal disease and tumours	2	1	3
Diphtheria	3	—	3
Paralysis	3	—	3
Disease of bladder, etc.	2	—	2
Rheumatism	1	1	2
Diabetes	1	—	1
Burn	1	—	1
Disease of ovary	1	—	1
Inflammation of bowels	—	1	1
	295	62	

Number of admissions, 1863		12,330
" " 1862		11,556
Increase		774

The cost for drugs at the Dispensary may be taken at 8½d. a case per annum, but these figures do not include 4917 patients who are attended at their own homes during the year. In addition to the ordinary prescribing practice, the Dispensary gives out trusses to poor persons afflicted with hernia, and the children of the poorest of the population are vaccinated by the Resident Medical officer.

THE SUSSEX AND BRIGHTON INFIRMARY FOR DISEASES OF THE EYE.

Near to the Brighton and Hove Dispensary is the Eye Infirmary, a very neat building, containing wards and accommodation for the reception of several patients. The Infirmary was founded in the year 1832 by Dr. Pickford, of Brighton, so well known in the Profession by his excellent and useful work on "Hygiene." Patients labouring under purulent ophthalmia and accidents are admitted at all times without recommendation, but children under 7 years of age, except in cases of great injury, or where an operation is necessary, are not admitted; pregnant women, persons of weak intellect, and persons suffering from epidemic diseases are also not admitted. Patients have to find their own changes of linen and washing.

The diet table of this Institution, framed with special reference to the requirements of the class of cases received into an eye infirmary, is as follows:—

Articles composing the Different Diets for a Day.

Spoon.	Tea.	Milk.	Half.	Full.
Oatmeal .. .. 6 oz. Sugar .. .. .. 3 " Bread (for toast water) 2 "	Bread .. .. 8 oz. Tea .. .. .. ½ " Sugar .. .. 1½ " Milk .. .. 6 "	Milk .. .. .. 48 oz. Arrowroot .. .. 3 " Sugar .. .. ½ "	Bread .. .. 10 oz. Meat .. .. .. 4 " Tea .. .. .. ½ " Sugar .. .. 1 " Butter .. .. 1 " Milk .. .. .. 4 " Salt .. .. .. ½ " Potherbs.	Bread .. .. 12 oz. Meat .. .. .. 8 " Potatoes .. .. 12 " Tea .. .. .. ½ " Sugar .. .. 1 " Butter .. .. 1 " Milk .. .. 4 " Salt .. .. .. ½ " Table beer .. .. 16 " Potherbs.

MEALS.

Hours.	Spoon.	Tea.	Milk.	Half.	Full.
Breakfast, Half-past Eight o'clock.	One pint of gruel made with— oz. Oatmeal .. 2 Sugar .. 1	One pint of Tea made with— oz. Tea .. .. ½ Sugar .. ½ Milk .. .. 2 Bread 3	oz. Milk .. .. 16 Arrowroot .. 1 Sugar .. .. ½	One pint of tea made with oz. Tea .. .. .. ½ Sugar .. .. .. ½ Milk .. .. .. 2 Bread .. .. .. 3 Butter .. .. .. ½	One pint of tea made with oz. Tea .. .. .. ½ Sugar .. .. .. ½ Milk .. .. .. 2 Bread .. .. .. 4 Butter .. .. .. ½
Dinner, Half-past One o'clock.	Same as Breakfast.	Same as Breakfast.	Same as Breakfast.	Meat (To be boiled so as to make a pint of broth.) oz. 4 Salt .. .. .. ½ Bread .. .. .. 4 Potherbs.	Meat (4 oz. to be made into a pint of broth; the other 4 oz. may be cooked.) oz. 8 Cooked potatoes .. 10 Salt .. .. .. ½ Table beer .. .. 16 Bread .. .. .. 4 Potherbs.
Supper, Half-past Six o'clock.	Same as Breakfast.	Same as Breakfast, but with bread 2 oz. only.	Same as Breakfast.	Same as Breakfast.	Same as Breakfast.

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The number of patients admitted annually to the Eye Infirmary is from 1150 to 1200. Last year the numbers were 1186, of whom 48 were received into the House. Of the latter, 25 were discharged cured. The cost of each in-patient, including all expenses, is a little under £2 12s. per patient in the year. The cost of medicines per annum, including in and out patients, is little more than 7d. per head; last year £35 3s. 9½d. only were spent in medicines. This fact implies very strict economy, and indicates how widely different Practitioners of our art differ in the expenses attendant on their methods of prescribing.

MEDICAL STAFF.

The Medical staff consists of—Dr. Pickford, as Physician; and of Henry Penfold, Esq., R. P. B. Taaffe, M.B. Lond., and J. Jardine Murray, Esq., as Surgeons.

BRIGHTON AND HOVE LYING-IN INSTITUTION.

The Lying-in Charity of Brighton, situated in West-street, was founded in the year 1830 by the late Dr. Lyons. It affords gratuitous attendance to poor married women in their own houses, advice and medicines to women suffering from uterine diseases, and to infants suffering from any form of disease; and it admits within its walls a limited number, not exceeding four, cases of midwifery at a time, the recommendation being that the cases are urgent or difficult. The Institution allows the attendance of midwives, but none are permitted this privilege unless they prove to the Medical officers that they have received a proper education, and are competent to practise.

A very noble act was performed last year by the Profession of Brighton in reference to this charity. A case of a difficult and serious kind having been admitted into the emergency ward, several members of the Medical body other than the officers of the Institution attended to give their advice and assistance. Not content with this important service, they subscribed the sum of £78 9s. 6d. towards the maintenance of those really necessitous women whose labours threaten to be more than usually severe.

The practice of the Institution is extensive and very successful; since the foundation 13,309 women have been attended during delivery. Statistics have, I believe, been kept of these cases, and they would form an important record if they were collated and analysed. I am forbidden from want of space from asking to be allowed to undertake such a task, but I may give the results of the year 1863 in a line or two. In that year 740 labours were attended by the officers of the charity. Of these 728 were cases of natural labour, and 15 were preternatural. There were 3 cases of twins, and the males amongst the children born numbered 8 more than the females. Of still-born children there were 29, 14 being males and 15 females; and 27 were children born prematurely. The actual working expenses of the Institution amount to about £400 a-year.

MEDICAL STAFF.

The Medical Staff consists of—R. Tayler, Esq., J. Oldham, Esq., Consulting Surgeons. J. K. Tuke, Esq., J. Dixon, Esq., J. N. Winter, Esq., Honorary Surgeons Accoucheur. W. Seabrook, Esq., is House-Surgeon.

THE PROVIDENT DISPENSARY.

The Brighton Provident Dispensary, established in 1837 as the "Brighton Provident and Self-supporting Dispensary," was one of the earliest of the self-supporting institutions. Its offices are held in Middle-street, and its objects are to enable the labouring classes in the borough of Brighton to ensure to themselves and their families efficient Medical advice and medicine during illness by periodical payments during health. The rules of the institution allow the application of donations and of voluntary subscriptions as well as of the members' fund. We may leave the honorary assistance in order to refer to the sums paid by the *bona fide* members and to the rules of membership. The rules are in brief as follow:—

The members must consist of the labouring classes, whether male or female, and their children, not receiving parish relief, and others who are unable to pay for Medical advice in the usual manner. Any such person wishing to become a member must leave his or her name, age, residence, and occupation with the clerk at the office of the institution, state the name of the Surgeon by whom he or she wishes to be attended, and deposit four weeks' subscription, which is returned in a month if the depositor be not admitted. Every member above twelve years of age must pay one penny, and under that age one halfpenny a-week, excepting in a family consisting of more than two children, when one penny a-week is considered sufficient for the whole number under twelve years of age. Domestic servants, who may be considered eligible by the committee must pay five shillings a-year, and in not less than half-yearly payments. No person can be admitted as a member who is above 50 years of age without a double payment. The payment of members is made in advance. No one is entitled to the benefits of the institution if in arrear, unless he or she pay a fine of one penny for the arrear of every week. If any member be more than three months in arrear, his or her name is erased from the books, and all moneys already paid are forfeited.

No one actually labouring under sickness is admitted a member, unless he or she can procure two healthy persons above twelve years old to enter at the same time, when all three must pay one year's subscription in advance; any such person unable to procure two others to enter with him or her may, by paying five shillings, be entitled to the privileges of a member for one month, and may afterwards continue a member by paying the usual rate of subscription, if considered eligible by the committee.

Every member may make choice of either of the Medical attendant officers, but if any other Medical attendant be selected than the one appointed to the district in which the member may reside, the member must first ascertain that such other Medical attendant will be willing to attend, and no member may change his or her Medical attendant during illness. If any member should wish to change his or her Medical attendant at any other time, he or she is at liberty to do so upon giving one month's notice thereof to the clerk, provided the Medical attendant proposed to be substituted be willing to give his attendance.

Any married member being pregnant may have the attendance of the Surgeon under whom she may have been enrolled on paying at the office ten shillings one month before her expected confinement, which sum is to be given to the Surgeon. No married member is entitled to the benefit of this rule unless she has been a member at least twelve months, or has paid twelve months' subscription in advance. Infants, during the first month, are included in the mother's membership.

The patients have to find their own bottles, or pay the Surgeon for them. No person is admitted a member unless he or she has had the small-pox, or has been or will consent to be vaccinated.

As regards the results of this effort, I may state that during the year 1863 the amount subscribed by the members reached the sum of £268 3s. 1d., the whole of which was transferred in cash to the Surgeons. All the extra expenses were met by the governors' fund, and left a balance of £4 14s. 3d. in the hands of the treasurer.

The statement of the accounts of the Brighton Self-Supporting Dispensary is satisfactory, and I put it forward in response to many requests made to me from various towns in England that I should offer in these papers every possible information relative to the "self-supporting" movement. The reader must judge for himself whether or not the movement at Brighton is successful. I think it is; but I am bound to add, that amongst the Profession there, at large, it finds little favour.

MEDICAL OFFICERS.

The Medical officers are:—W. District—W. King, Esq., M.D.; E. District—W. Kebbell, Esq., M.D.; N. District—A. W. Seymour, Esq., M.D.; Cliftonville District—B. Phillips, Esq., M.D., consulting Physicians. John P. M. Smith, Esq., 118, Western-road; J. J. Sewell, Esq., 39, Grand Parade; S. Barker, Esq., M.D., 18, Eaton-place; Heckstall Smith, Esq., 30, Albany-villas, Surgeons. J. T. Whatford, Esq., 10, St. James's-street, is Honorary Surgeon-Dentist.

In leaving the Medical charities, I may add that some time since, through the exertions of Mr. Wood, a project was drawn out and nearly completed for the formation of a Dental Hospital. After some consideration it was determined to try and connect the new Institution with the County Hospital, but the endeavour failed. The whole question is now in abeyance, but there is a feeling that it must one day be re-opened. In London the Dental Hospitals have proved most successful, and the plan of a separate Institution has been found to be by far the best. In Brighton, where there is ample scope for a Dental Hospital, there can be little doubt that, by a vigorous and united effort, an Institution might be founded that would prove of great service to the poor, and be an excellent school for students of Dentistry. Such an institution, if ably conducted, would, in fact, be recognised by the examining

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boards, and the pupils of Dentists resident in Brighton might begin and complete their education there,—an important advantage both to the teacher and the taught.

MEDICAL SOCIETIES OF BRIGHTON.

The Brighton and Sussex Medico-Chirurgical Society.

There has been more than one attempt to establish a Medical Reading Society in Brighton. The present Society, called the Medico-Chirurgical, bids fair to become a permanent institution, for it has entered on the eighteenth year of its existence, and has lost nothing of its early vitality. It has a handsome library at the Dispensary, where its meetings are held by the courtesy of the governors of that charity. It possesses a rapidly-increasing collection of books, now numbering more than 2000 volumes, and a beautiful microscope, purchased by subscription among the members during the past year.

The Society numbers from seventy to eighty or more members. It is governed by a president, who is elected annually, two secretaries, and a committee of six besides the past presidents. A meeting is held on the first Thursday evening in every month for the reading of papers or cases and discussions, and every Wednesday evening there is a meeting for the study of microscopic pathological anatomy. An annual dinner is also an institution of the Society, which the members think, with Harvey, is not the least important means of maintaining good-fellowship.

A Natural History Society has grown, in some sort, out of the Medical Society, which contributes a large proportion of its members. The objects of this Society are, however, only indirectly connected with Medical science.

PAROCHIAL MEDICAL PRACTICE.

The parochial districts of Brighton are four in number. The Medical practice is epitomised as follows :—

District.	Medical Officers.	Acreage.	Annual Fee.
Central .	W. Verrall, Esq.	120	£105
Eastern .	G. Geere, Esq.	223	£105
Western .	D. Richardson, Esq.	299	£105
Northern	J. J. Sewell, Esq.	240	£105

The Union Workhouse.

The present Workhouse was built in 1820 ; it is situated on Church Hill, in the western quarter of the town. Connected with the house, and standing a little in the rear, is the Infirmary, and further on an establishment for the reception of lunatics. I have been so criticised for speaking out on the subject of workhouses that I ought to be cautious for my own sake. Nevertheless, I should speak again now, but for the one simple fact that the Workhouse is doomed to come down. In 1820 it probably was a model house ; in 1864 it is—I will be very mild—it is unfit for the "Queen of watering-places." Crowded, squalid, dark, worse than a prison, down with it!—for the sake of Brighton as an advanced town, down with it at once. That is the only remedy.

D. Richardson, Esq., is the Surgeon to the Workhouse and Infirmary.

CLUB PRACTICE.

Club practice in Brighton is on a better footing than in most other towns. The Odd Fellows' order is predominant, but there are various other clubs. The pay to the Medical men for club practice is from 3s. to 4s. per head per annum.

THE CHARITIES OF BRIGHTON.

The charities of Brighton are very extensive. In addition to the Workhouse there are three noble asylums, the Asylum for the Blind, the Asylum for the Deaf and Dumb, and the Orphan Asylum, together with many minor charities most useful in their way.

Brighton Asylum for the Instruction of the Blind.

The Asylum for the Instruction of the Blind is situated in Eastern-road, at a short distance from the Sussex County Hospital. It was instituted in the year 1841, was reconstructed and reopened in 1861. Children of both sexes are admitted, and there is accommodation for sixty inmates, in equal divisions of thirty. Children cannot be admitted until they are 8 years of age ; but admitted, they remain until they are provided for. In special cases adults are admitted. The average duration of residence is seven years. At the taking of the census in 1861 there were 19 inmates, 6 of whom were males, and 13 females. In 1853, the number of blind under instruction was 30, of whom 37 (19 males and 18 females) were boarded in the house. The expenditure was £703 5s. 3d. for the year 1863, or about £81 below the income. The institution is supported by annual subscriptions, donations, and payments on behalf of the children ; and for each child from 8 to 12 years of age a sum of not less than £9 per annum has to be paid in advance by quarterly payments. Accommodation is afforded for a limited number of adult blind females in special cases. These have to pay for their board, but the payment is regulated by the circumstances. Every child and adult admitted must be really blind, but must not be deficient in intellect, nor suffering from fits, nor labouring under any infectious disorder. Every inmate must have been vaccinated.

The method of teaching adopted is on Moon's system, and Mr. Moon himself is the teacher.

Mr. Bird, a member of our own Profession, who has been deprived of sight, has raised a very important subject for discussion in reference to the teaching of the blind. He has suggested that in the main the asylum system is not good, and that the home and social system is the best. I, for one, entirely agree with Mr. Bird ; but in saying so much, I would add that, in the Asylum at Brighton, the idea of an asylum is as far removed as is possible from the inmates ; that music and other amusements are provided for them, and that they are clothed and fed on the most liberal scale.

In addition to the teaching of reading, writing is also taught on the plan invented by Professor Leone Levi, and various useful trades, such as basket-making, chair-mending and knitting : knitted shawls and quilts, exhibiting exquisite workmanship, were shown to me as the productive labour of the blind in this Institution. Dr. Pickford is Physician, H. Penfold, Esq., is Surgeon, and C. Fox., Esq., is Dentist to the Asylum.

The Institution for the Deaf and Dumb.

Unhesitatingly one of the most interesting studies afforded in Brighton to the physiologist and psychologist is to be found in the Deaf and Dumb Asylum, or, as it is officially designated, the "Brighton Institution for the Instruction of Deaf and Dumb Children of the Counties of Sussex, Hampshire, and Kent." The Institution, situated in the Eastern-road, and very unpretending in appearance, was founded in 1840. It is supported by subscriptions, donations, and the payments of the children taught. Children of both sexes are admitted, and there is accommodation for 110 altogether. There are rarely any vacancies, and the numbers of each sex are usually nearly equal. It is a rule that no child is admitted who is of deficient intellect, is subject to fits, or is under seven or over twelve years of age. A payment, in quarterly instalments, of not less than eight pounds a-year is required for each child.

The sanitary condition of the Institution is most satisfactory, and the girls are taught general housework and sewing : the boys are taught no industrial occupation. But that which is most interesting to the visitor is the marvellous facility with which the pupils converse with each other and with the teachers. Mr. Sleight, the head-master, and one of the most accomplished living scholars in his department, was so good as to have several of the scholars before me, and to show me the method of conversation. The facts have to be seen to be realised. I may epitomise them by saying that the language spoken is all by signs : not merely by talking with the fingers through an alphabet—that is a minor part of the system—but by certain fixed signs for everything, which signs are learned over and over again until they can be communicated as rapidly as in speech. When two men, foreigners, meet each other, not knowing how to converse, they make signs ; the sign language of the deaf and dumb is the same mode of communication, elaborated, systematised, and rendered so perfect, that soon the deaf and dumb of all nations will be able to speak as by an universal language. A deaf and dumb German came to Brighton a short time ago, and wanted some important information. He could write nothing in English, and could make no one understand him. At last he was directed to Mr. Sleight—who, by the way, knows nothing of German—and he was immediately at home. The two gentlemen conversed as freely as if the deaf and dumb could hear and speak. In some sentences and expressions the sign language is more rapid than the spoken, and Mr. Sleight communicated a variety of thoughts to the boys by signs quicker than I could speak the same. The communication also seemed to be absolutely unlimited. I asked, through Mr. Sleight, for a planet, as apart from a fixed star, and at once on his board, or rather on the wall, one of the boys answered me. I asked for a comet and a meteor ; a sign as rapid as the spoken words was given, and the

words were written. Questions, such as "When did you see your parents last?" and "What is your native place?" were answered quite as rapidly as in common conversation. Even abstract points are capable of being taught, and the acts of writing and reading follow almost as a natural sequence. Lectures delivered in the sign language are as well understood and appreciated as when given orally. It is curious, too, to observe how quickly the language is acquired. In my short visit I could make myself intelligible on many questions of an elementary nature. The Medical man may also learn a valuable lesson in diagnosis in this Institution;—I mean in the diagnosis of intellectual capacity in cases where a child is deaf and dumb. How often we are asked as Professional men whether a certain deaf and dumb child is or is not deficient in intellect? and we know how difficult the question is to answer. At this institution the solution of the answer is reduced to a certainty, simply by the response made to signs in the sign language. Cases pronounced as idiotic have thus been rescued, and the wandering intelligence brought to a state of efficiency as remarkable as it is satisfactory. The pupils in some instances show wonderful abilities; one of them, who unhappily died lately, was a profound mathematician, another gained a medal last year at the South Kensington Museum "for designs," and they all seem to turn out in handicrafts quite as well as other and more favoured scholars. No light has been thrown here on the causes of congenital deafness. Hereditary tendency seems admitted, but intellectual deficiency appears to be an exception in the born deaf and dumb.

Dr. Kebbell is Physician to the Institution, T. B. Winter, Esq. and George Lowdell, Esq. are the Surgeons, and E. Eden, Esq. is the dentist.

The Orphan Asylum.

The Orphan Asylum for female orphans who have lost both parents is another important charity of Brighton; it is situated near the Hospital. The children admitted are over six and under ten years of age, and must be inhabitants of Brighton or Hove. Messrs. Scott and Humphrey are the Surgeons to the Asylum. The asylum was instituted in the year 1823. The sanitary condition is exceedingly good.

Bread and Milk Fund.

I must not close this notice of the charities of Brighton without referring to an useful and unassuming charity, called the bread and milk fund. This charity, which has been in existence for sixteen winters, is in operation every winter from December to April inclusive. The funds of the charity, are expended for supplying tickets to ladies and gentlemen who visit the poor at their own homes. The ticket procures for the bearer of it a pint of new milk and a pennyworth of bread on payment of a halfpenny. Last winter 9,118 tickets were thus distributed, and were of great service in sustaining the healthy life of the poorest inhabitants. A "bread and milk fund" is a charity which through the Medical Profession might be extended with incalculable benefits to every town in the kingdom during the months of winter.

Of the other charities I have only opportunity of noticing, and that, in a word, St. Mary's Hospital—a penitentiary for aged females, with an Infirmary and Hospital for sick children; and the Industrial Schools on the Downs at the Warren Farm, where pauper children are taught trades and useful arts.

SANITARY CONDITION OF BRIGHTON.

The direction of Brighton in sanitary matters is vested in the Sanitary Committee of the Town Council, on which all members of the Medical Profession who are on the Town Council are placed almost as a matter of course. There are inspectors of the meat and vegetable markets, of nuisances, of lodging-houses, and all the usual executive required to carry out the Public Health Act, the provisions of which are gradually being enforced.

The sanitary condition of Brighton, like that of most other large towns of the present day, is progressive; each step having to be determined by experiment before its adoption. The townspeople are keenly sensitive of the importance of the purity of the air and the water, and are conscious that a mistake in the management of the sewage might ruin the prosperity of the town for their generation. Probably to this cause is due the delay in adopting any general system of drainage, rather than to any supineness on the part of the authorities; for the town had been surveyed several times, and plans of drainage had been obtained at great expense from the most eminent engineers, before the present plan, which has been always called the town plan, was determined on.

Drainage.

At present there are about eleven miles of sewers, chiefly carried along the main streets; while about twenty-five miles of the smaller streets have no sewers. It is proposed, as soon as the main outlet is completed, to carry a new main drain up the Steyne, and gradually to extend this into all the streets which can be reached from this point. The same process will be adopted as regards the outfalls east and west of the town, and ultimately every house will be put into communication with one or other of these drains.

The activity which at present prevails in making the main outfall, and the complete scale on which all the work is being done by the contractors, Messrs. Aird, are a guarantee that before long Brighton will enjoy the advantage of being thoroughly drained on the best plan that experience can suggest or money or skill can carry out.

Some account of these drainage works may be of interest. The great engineering difficulty in the drainage of Brighton is the steepness of some of the hills, down which, after any sudden storm, the water pours with great violence. Probably many know well what Brighton rain is when it does come, and some may have witnessed the storms of rain and hail which more rarely occur at longer intervals. Singularly, these tremendous storms generally occur at high tide; and the effects on the basements of the houses lying low are most disastrous. This difficulty has been fairly met by the formation of a large chamber at the land end of the outfall. The flood water now cannot rise to any dangerous height, a wide opening having been arranged to allow of the escape of any such deluge of fresh water on the beach; while under ordinary circumstances the sewage and the usual rainfall will not reach this escape, but will be carried out to sea by the tube to the distance of half a mile from the sea wall.

The different pieces of the tube, each twelve feet long by three feet in diameter, and weighing about two tons, are joined together to the length of about a hundred yards. The joints are made tight with melted lead, the ends of the tube stopped, and the heavy mass rolled gently into the sea down *ways* which have been laid for it. The tube is then towed out to sea, the mass of about fifty-four tons floating like the sea serpent on the still water, and lowered into its place under the guidance of divers, by whom it is finally pinned down to the chalk. Of course the process does not always succeed, the tube breaking up and the water rushing in unless every part of it is floated at the same time, in which case the process of making all the joints watertight has to be gone over again.

As the beach shelves almost imperceptibly, there will be no difficulty in carrying the tube out any distance, should the sewage return. But, from the experiments which were made before this plan was determined on, there is no reason to apprehend that any of the sewage will ever be thrown back on the shore.

Probably, at no very distant time, means may be found for disinfecting the sewage and detaining the fertilising part, while the sea shall only receive that part which is useless for agricultural purposes. It is believed, in such case, that the present contemplated outfalls will prove useful for surface water. In any case the people of Brighton will have no reason to regret having spent so much money to make their town what it ought to be. To them the pure air and the pure water are everything, and they would regard with complacency any seeming waste of the sewage if they could but get well rid of it, which they seem thoroughly determined to do.

However perfect the sewers and outfalls may be, the internal drainage, the state of the closets and sinks, on which so much depends, is altogether beyond municipal control. These are not likely to be so good, or in such good order, in lodging houses as in private establishments. We all know how negligent servants are in a house where there are only temporary occupants. Unless these domestic necessaries receive the same attention in a hired house as in one's own, annoyance and disease are sure to follow; not to acquit Brighton of all blame in the matter, it must be acknowledged that many complaints of bad drainage and its consequences which have found their way into the public journals have had no better foundation than the neglect of servants. The best drains are no good unless the house ends of them are well attended to.

Water Supply.

The supply of water is unlimited; the water is pure, only containing a small quantity of carbonate of lime in solution. It is intercepted in large chambers in its passage through the chalk, and more chambers could be cut to supply the town,

to whatever size it might increase. The pipes of the constant and intermittent service are laid throughout the town, and it is optional for any one to be connected with either. Within the last four months measures have been taken to make the supply of water to every house in the town compulsory on the landlord. Public baths and wash-houses are in contemplation, but nothing of the kind has as yet been carried out on a large scale.

Ventilation.

The ventilation of the dwellings of the poor has engaged attention. The Lodging-house Act is strictly enforced in all its details. No new building is allowed to be inhabited until it has been certified as habitable by the inspector. Overcrowding is a danger to which Brighton is particularly liable, not merely as concerns the hotels and better lodging-houses on the eve of a review, but as regards whole districts. In the decennial period of 1851 to 1861, the population had increased from 65,000 to 77,000—speaking in round numbers. The greater part of this increase was in the north district, and this rapid growth was accompanied by an increase in the mortality of the town. More closely examined, this mortality was clearly traced to the rapidly growing over-crowded northern district. This knowledge has not been thrown away on the town authorities, who have adopted every means in their power to prevent the working-class from incurring such a danger in their natural desire to establish themselves without delay in the neighbourhood of their work.

Slaughter-houses still infest the town, and have not been removed even from the main thoroughfare to and from the railway station. But they are all under inspection, and the Town Council, having been foiled for the present in their attempt to establish an *abattoir*, only wait the opportunity to eradicate, one by one, what they had hoped to remove at one sweep.

At the present time the public will be glad to hear that, whatever may be the state of the law on the subject, the organ grinders are kept in good order at Brighton; and if the sufferer be so disposed, which all are not, he can get rid of the whole tribe of Blacks, Germans, Italians, and their instruments by the willing aid of the police, without paying blackmail.

Epidemics.

Brighton is so essentially a part of London that whatever epidemic diseases prevail in the metropolis are nearly certain to appear before long in this town. Convalescents from scarlatina, families panic-stricken by diphtheria or flying from cholera, do as much as lies in them to introduce these diseases into Brighton, over and above what may fall properly to its own share. The large number of schools supply a constant field for the diseases of childhood. In the poor, dirty parts of the town fever prevails at certain times, generally of that kind to which the name typhoid has been particularly applied. Very rarely the form of fever which is called typhus occurs. But there is nothing in the occurrence of these diseases peculiar to Brighton; dirt and poverty produce the same results here as elsewhere.

Curiously enough, ague sometimes occurs in the higher parts of the town on the chalk. These cases, however, are rare, the ague cases in the Hospital being mostly supplied from the basin of the Ouse below Lewes, and the Adeer above Shoreham.

On more than one occasion small pox has crept gradually over the town. Twice within the last fifteen years this has been the case. On the first of these occasions the progress was very gradual from west to east; on the second, this gradual progress was not so distinctly marked. The panic which such an occurrence will occasion among those who are trusted with the lives of other people's children, particularly delicate children, is more easily conceived than described. But Brighton has no reason to complain. To the same popular rumour which spread the fame of her shortcomings through all the country she owes her reputation for her good doings; and, much as the inhabitants may be annoyed at their faults being kept well before the public eye, the town is just as much a gainer as the public in the end.

Etiology.

Rheumatism is a very common disease at Brighton, young people, servant girls, and mechanics being its chief subjects, as in London. Perhaps the great alternations of temperature have not much to do with the frequency of this form of disease, but the results of these alternations of temperature, and especially of exposure to the cold winds which stream down the cross streets, appear in the frequency of acute pulmonary affections in children. A cold north wind in March or May is pretty certain to produce cases of pneumonia in infants, whom their nurses have detained at the corners of the streets. On the whole, patients with pulmonary affections will do well to be careful before selecting Brighton as their residence. The class of cases of consumption which get benefit from a winter in Canada do very well in Brighton. But where bronchitis is, as so generally happens, the most prominent symptom of phthisis, a residence in Brighton can scarcely be advised. The advantage of being able to go out more days in the year than at most other places, and the almost entire absence of other consumptive patients, render Brighton a desirable and cheerful residence for those whose comfort depends on their living much in the open air, and who have no resources indoors. But even these must be compelled to stay indoors sometimes day after day during the keen weather which they might have avoided in other winter quarters. The air of Brighton is as inimical to the sufferers from tracheal affections as to those liable to bronchitis.

Climate.

No Medical account of Brighton, however brief, would be complete without some notice of that peculiar condition of the air which has, in fact, made Brighton. This condition is to be found in its highest degree in Kemp Town or on the Downs. It is lost as soon as the passenger emerges on the Weald from the Clayton Tunnel, or descends into the open country beyond Hove. Patients fly to Brighton for protection from hay fever, but most asthmatic patients find that Brighton air is too exciting for them. Many of the cases with which Brighton permanently and entirely disagrees have some tubercular tendency. This, however, must be expressed with much reserve, and as applying rather to adults than to children. For while, on the one hand, adults will do well to try Brighton for a year before establishing themselves permanently, there is scarcely a child, especially a scrofulous child, who may not confidently be sent to Brighton.

The natural historian turns with interest to the Aborigines of any place in his inquiries as to the effect of its climate on human beings. Such a race can scarcely be said to exist in Brighton. The inhabitants of the little fishing village have been almost entirely swallowed up in the flood which has swept, from all quarters of the kingdom and from India, over these dry chalk cliffs, as their former habitations have been by the inroads of the sea. The fishermen are quite a different race to what they used to be, thanks to the kind care which has most actively interfered for their moral and physical benefit. Their occupation will always keep them distinct from those who earn their living on the land, but they are not numerous enough to represent Brighton, as it is now, in any sense of the word. A visitor, who does not dream of the existence of streets upon streets of mechanics near the railway, and whole rows of houses tenanted by the families of the various dependents on the wealthy, is rather puzzled to know where the poor people are. And from a short visit to Brighton, he would carry back the impression that the Aborigines of Brighton were the scores of happy little beings who may be seen, in every extreme of fashion, crowding that Elysium of children, the Western Esplanade.

Value of Life.

The Registrar-General's returns on the value of life in England, which have as yet only appeared in these histories, yield the following facts in respect to Brighton:—

Average Annual Mortality in Brighton from Different Causes, to 100 Living, from 1851 to 1860.

	Males.	Females.
All causes	2·499	1·971
Typhus	·094	·089
Cholera, diarrhœa, and dysentery	·136	·101
Other zymotic diseases	·366	·267
Cancer	·030	·067
Phthisis	·328	·275
Scrofula, tabes mesenterica, and hydrocephalus	·127	·090
Disease of brain	·291	·212
Disease of heart and dropsy	·150	·137
Disease of lungs	·282	·210
Diseases of stomach and liver	·114	·107
Diseases of kidneys	·050	·017
Violent deaths	·095	·028
Other causes	·436	·371

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Average Annual Rate of Mortality in Brighton from all Causes, at Different Ages, to 100 *Living, during the Ten Years* 1851-60.

	Males.	Females.
All ages	2·499	1·971
Under five	8·098	6·998
Five to ten	·871	·908
Ten to fifteen	·419	·457
Fifteen to twenty	·612	·519
Twenty to twenty-five	·989	·698
Twenty-five to thirty-five	1·160	·919
Thirty-five to forty-five	1·579	1·224
Forty-five to fifty-five	2·120	1·583
Fifty-five to sixty-five	3·722	2·709
Sixty-five to seventy-five	6·823	5·753
Seventy-five to eighty-five	14·639	13·454
Eighty-five and upwards	37·917	28·413

Social Facts.

The beer-shops and licensed houses are very numerous. Of the former there are in the Parliamentary borough 240, and of the latter 270.

Prostitution is rife. There are reported to Government as prostitutes 25 girls under 16 years of age, and 330 above that age. These are professionals, who make no secret of their practices. In addition there are an equal number of women known under the technical name of "slys," and who are, in fact, prostitutes. To both these classes must be added a fluctuating extraneous population of the same character, the numbers of which it is impossible to estimate.

Crime is gradually on the decrease in the town. There are about 80 known thieves, from 50 to 60 receivers, from 150 to 200 vagrants, and over 190 suspected persons.

MEDICAL BIOGRAPHY OF BRIGHTON.

Brighton has as yet produced no great scientific man in the Medical history of her past; nor, in truth, has her Medical representation ever been so good as it is at this present.

Dr. Russell, who founded the town as a watering place, has been already referred to, and full credit has, I hope, been given to him. He was born at Lewes, in 1687, his father being a Surgeon there, and he ran away with, and married, the daughter of a Mr. Kempe. Russell visited Leyden, and studied under Boerhaave. On his return to England he first lived at South Malling, and then moved to Brightelmston, where he practised for eight or nine years. He died in London in 1759, and was buried at South Malling. The Medical visitor who would see his likeness will find it in the Telemachus-room of the Ship Inn.

Dr. Rhellan, who followed Dr. Russell, practised for some years, and won a fair fame in Brighton. Rhellan was a scholarly man, and in a book on the natural history of the town, published in 1650, he evinced great skill and care as a writer. I know of no other remarkable incident in his career.

Dr. Awsiter, of whom, also, no biographical memoir remains, was locally known as the founder of the first thorough system of baths in Brighton. These were erected in the year 1768, "at the pool between the Stein and the sea."

CONCLUSION.

It has been impossible in the above report to condense into reasonable space all that may be said of the Medical History of Brighton. I have endeavoured to select those points which are of most interest to Medical men, and must leave the rest. Of the town as a residence for invalids, sufficient has been stated to enable any Practitioner to form his own judgment without his receiving any bias or impression from me; and I will merely say, further, that there are in Brighton two special advantages which deserve to be named. First, for boys who, during their education, may require a seaside residence, there is an admirably-conducted College, in which scientific teaching is blended with classical teaching, and in which chemistry is practically taught by one of our most able teachers, Dr. Wood; secondly, that at what is called the German Spa, the various medicinal waters of Germany are all manufactured, and that a more instructive day could not be passed by the scientific Medical observer, than one spent in learning how, by steam-power and human ingenuity, nature may be imitated so perfectly that her products in the way of medicinal waters can do no more than rank equally with those artificially made at the "Queen of English watering-places," "London-on-the-Sea."

PROVINCIAL CORRESPONDENCE.

BIRMINGHAM.

POISONING BY THE SEEDS OF THE CURCAS PURGANS (PHYSIC NUTS—JATROPHA NUTS).

(*From our Special Correspondent.*)

By order of the London and North-Western Railway Company an auctioneer was engaged for several days in selling by auction, at the railway station, Birmingham, a large quantity of unclaimed goods accumulated during the past twelve months or more. Amongst these unclaimed goods were three or four sacks of jatropha nuts, sweet and pleasant to the taste, but poisonous. They are useful in some branches of industry—lamp-oil is extracted from them; when boiled with oxide of iron they form a varnish, and they are frequently imported to this country as veterinary medicine—so constituting, at our sea-port towns, a not unfrequent source of poisoning. The oil, too, is sold occasionally at drug sales as what is called croton-oil. These nuts were allowed to lie scattered about the floor, and some boys employed adjoining the place at which the sale was conducted obtained access to them, and carried quantities of them home in their pockets at dinner-time. These boys ate the nuts themselves, and treated their friends with them, the consequence being that above thirty persons were taken so ill as to require to be brought to the General Hospital, where some of them arrived in an alarming and dangerous condition. The scene in the waiting-room, as so many persons suffering from poison presented themselves for treatment, may more easily be imagined than described.

The curcas purgans (Adanson) jatropha curcas (Linnæus) or English physic nut, belongs to the Euphorbiaceæ, and is met with on the West Indian Islands, the Brazils, Ceylon, and the Coromandel coast. The fruit is a three-celled capsule, containing one seed in each cell, and is of about the size of a walnut. The seeds are not unlike the seeds of the castor-oil plant in shape, but are chocolate brown or almost black in colour, and marked with numerous minute cracks, which communicate a sense of roughness to the touch. They are oval, about eight lines long, flat on one side, convex on the other, and the two sides present a slight longitudinal prominence; the kernels are covered with a fine white pellicle, are sweetish and pleasant to the taste, and it appears pretty certain from the observations of those who have studied the action of the drug, that if the cotyledon leaves dividing the kernel into two parts be extracted, the albumen has little activity. This can be very readily done, and Mr. Hamilton in a paper on the subject in the *Pharmaceutical Journal* for September, 1849, says,—"The seeds possess when recent a strongly emetico-cathartic quality, insomuch that the new comer who, tempted by the agreeable flavour of the kernel, imprudently eats even so much as a single seed, is usually attacked with a severe vomiting and purging within a few minutes after. This effect may be counteracted, as far as the emetic operation is concerned, as an American captain whom I met in the West Indies informed me, by splitting the kernels in two, and carefully removing the cotyledon leaves, in which the emetic principle appears wholly to reside. Thus prepared he constantly carried them about with him, and found four or five eaten in the morning relieve his bowels without sickness, pain, or griping." I made the following experiments, which go far to prove the correctness of the above statement:—I gave a dog eight seeds entire, and another dog eight seeds with the cotyledon leaves carefully removed. The former was sick, and vomited in an hour and ten minutes; the latter being purged, without vomiting, about the same time. After the lapse of several hours I gave to the first dog eight seeds with the cotyledon leaves removed, and to the second the cotyledon leaves only of eight seeds, and the result was exactly the converse of the former experiment. Although both dogs after having the leaves were very sick, and seemed to vomit the greater part of the poison almost in the state in which it was given them, the dog that took the eight seeds entire was much the more severely affected as to sickness. It is not a little remarkable that in a natural family numbering so many plants dangerous to life several should be found having starch in very large quantity, which when thoroughly deprived of poisonous matters by various processes becomes excellent material for food. I might instance the jatropha manihot, which is cultivated for food over the entire tropical world, and has a large root sometimes weighing thirty pounds, containing intensely

poisonous juice, but by rasping, bruising, and washing the roots, and heating them upon iron plates the delicious cassava is obtained, and the feculent powder which floats off during the washing is the universally known tapioca. The oil of the curcas purgans seed is met with as an adulteration communicating drastic and emetic qualities to the oil of the argemone Mexicana, a bland purgative possessing anodyne and narcotic qualities belonging to the Papaveraceæ, and met with in the Antilles; when pure it purges in the dose of 12 to 15 drops, and is analogous in its action to croton oil, though less powerful. It differs from castor and croton oils in its slight solubility in alcohol. Dr. Christison in his Dispensatory, page 794, says that one sample expressed from Barbadoes seeds acted precisely like castor oil in the dose of 10, 15, or 20 drops, but that another from Jamaica seeds sometimes caused the same severe sickness and watery evacuations as croton oil, and at other times was inert in the dose of 30 drops. There is room for very little doubt that the investigation of the oils belonging to this natural family is eminently entitled to the attention of those wishing to cultivate the capabilities of our West Indian colonies, and it is very certain that should any one be fortunate enough to discover an oil belonging to them which either simply, or by some superior method of preparation should possess all the admirable qualities of castor oil without its unpleasantness, a large fortune would be his reward.

In the London *Medical Gazette* for July, 1848, Mr. (now Dr.) Letheby, Lecturer on Chemistry at the London Hospital, relates a case of "poisoning by the seeds of the jatropha curcus, or physic nut," which presents many points of analogy with the cases treated in Birmingham:—A labourer in the London Docks ate the kernels of five nuts. In about a quarter of an hour he suffered from a burning sensation in his mouth and throat, with pain and distension of his abdomen; violent sickness supervened in a few minutes, and within an hour he vomited five times and was severely purged; he was hot and feverish, covered with perspiration, became extremely weak, giddy, and ultimately insensible. He recovered, and applied for treatment at the Hospital, suffering from the symptoms above mentioned, and was relieved by an opiate and a cordial so far as to be able to return home.

On June 9, 1864, no less than thirty-three persons were admitted almost at the same time to the General Hospital, under the care of Dr. Russell, suffering from the poison above described; and, although many of them had already vomited, it was thought advisable to treat them all in the first instance with an emetic of sulphate of zinc and ipecacuanha, although not a few of them, as will be seen in the detailed cases, required other after-treatment, owing to the extreme and, in some cases, alarming depression from which they suffered.

It will be observed from an attentive perusal of the cases that some of the patients, even young boys, ate as many as fifty of the nuts, while others ate only three or four; that the symptoms appeared in some cases as early as ten minutes, and in others not until two or two and a-half hours had elapsed after the taking of the poison; and that the main symptoms taken in their proper sequence were, pain and burning in the throat and fauces; pain and distension of the abdomen; giddiness, vomiting, drowsiness, and, after an interval, purging, the stools being copious, mucous, and not unlike the well-known rice-water stools. In some instances the depression was very great, in many there was dysuria; the after effects were invariably thirst, fever, hot skin, with quickened pulse, and the state of the pupil was either normal or, in the opinion of several who observed the cases, was markedly dilated in those who had taken a large quantity of the poison. The drowsiness was so marked—many of the patients having fallen asleep in cabs on their way to the Hospital, and many dropping off to sleep repeatedly in the waiting-room—that, were it not for the fact that they could all be immediately aroused, I should be inclined to put it down to a narcotic influence; but remembering the extreme depression of the vascular system in the severe cases, I am disposed to think that it was no more than the sleepiness resulting from the excessive prostration, almost approaching syncope. One of those outside was so prostrated that he fainted and fell, after being sick and violently purged; most of the patients vomited without any emetic; all, without exception, had an emetic given them on their arrival at the Hospital, and almost all were severely purged. They all, without exception, made excellent recoveries.

Case 1.—T. M., aged 14, ate forty to fifty of the nuts at 2·30 p.m., and in half an hour afterwards complained of dryness and pain in the throat, giddiness, and pain, with a sensation of heat in the bowels. He vomited several times before his admission, at 4·15 p.m., when he was given an emetic, which acted freely again, and he was purged three or four times. During the evening he was in a state of great prostration, with frequent and weak pulse, and required the application of warmth to the extremities and the administration of weak brandy-and-water. The next day, June 10, in the morning, he was very feverish, with a pulse of 120, drowsy, complained of slight pains in the bowels, and difficulty in making water. On June 11, with the exception of slight feverishness, he was almost in his normal state of health, and was judged sufficiently recovered to be able to leave the Hospital.

Case 2.—T. W., aged 14, took from thirty to forty of the nuts at 1 p.m. In half an hour afterwards he felt sore-throat, sickness, giddiness, pain in the bowels, and immediately vomited. States that he perceived portions of the nuts in the vomited matter. He was drowsy and very thirsty, and half an hour after admission (4·15 p.m.) was seized with severe cramps and pains in the legs and feet. In an hour and a half after this he had profuse mucous diarrhœa; after which, on being summoned to him, he became almost pulseless, dropping off to sleep every half minute, although easily aroused. The same treatment was pursued, with very much the same results as in the case above noted.

Case 3.—G. R., aged 12, ate two handfuls of the nuts at 2 p.m., and in about two hours after suffered from dryness of the throat, sickness, pain in the stomach, vomiting, and cramps in the feet and hands. On June 10, in the morning, he was very hot and feverish; had copious diarrhœa, with watery stools, after which he felt much relieved, and was enabled to leave the Hospital.

Case 4.—H. C., aged 16, ate twenty-four of the nuts, and in an hour and a-half suffered from burning in the throat, giddiness, and pain in the stomach very severe. He did not vomit till treated with an emetic at the Hospital, nor had he any purging. On June 10 he complained of giddiness and pain on raising his head, and of pain in the stomach with pyrosis, but rapidly recovered with appropriate simple treatment.

Case 5.—C. W., aged 15, ate twenty nuts at 2 p.m., and was seized in an hour with giddiness, sickness, dryness, and burning of the throat, and vomited copiously, after which he became very drowsy, hot, and feverish, but recovered the next day without any bad symptoms.

Case 6.—C. W., aged 15, ate more than two handfuls, and in an hour afterwards complained of his throat, thirst, and sickness, which ended in his vomiting freely. During the evening he was seized with violent cramps, dysuria, and severe purging, with tenesmus. On June 10 he was quite recovered, with the exception of slight fever, as indicated by rapid pulse, hot skin, and dry tongue.

Case 7.—T. F., aged 14, took one handful, and the symptoms of dryness in the throat, vomiting, giddiness, and palpitation, followed by great depression of the vascular system, made their appearance in an hour and a-half.

Case 8.—T. H., aged 12, ate a dozen. Symptoms as in the above case, with the addition that he was severely purged, and complained of slight pain in the bowels.

Case 9.—T. O., aged 15, took a dozen, and was attacked in an hour by the throat symptoms, vomiting, drowsiness, and dysuria. No purging.

Case 10.—T. M., aged 18, took a dozen. Symptoms came on in three-quarters of an hour. Throat affected, vomiting, giddiness. Purged three or four times very copiously; thirst and slight cramps.

Case 11.—W. F., aged 12, took eighteen. Symptoms came on in two hours and a-half, consisting of dryness and burning of the throat, pain and distension of the abdomen, vomiting, purging, and dysuria. The same evening he was perfectly well, and begged to be allowed to go home.

Case 12.—T. H., aged 14, took a dozen. In an hour and a-half felt pain in the throat and in the belly; took salt and water at home, which caused him to vomit freely; was very drowsy on his arrival at the Hospital; no remarkable symptoms.

Case 13.—W. H., aged 16, took a dozen. In one hour afterwards his throat became hot and dry; he was very giddy and sick, vomiting freely, after which his bowels were moved very copiously upwards of a dozen times, his stools being mucous and watery; he was very drowsy and prostrated, and suffered from most severe cramps in the arms and legs. The

hypercatharsis and cramps, for what reason I cannot tell, were more severe in this than in any of the other cases.

Case 14.—G. R., aged 13, took five of the nuts, and in about a quarter of an hour suffered from thirst, pain in the stomach, vomiting, purging, drowsiness, and slight cramps.

Case 15.—J. M., aged 13, took ten, and was affected in ten minutes afterwards with giddiness, pain in throat and stomach, and inclination to drowsiness; in half an hour he vomited several times, but was not purged; he was hot and feverish during the evening, but slept soundly during the night, and was quite well next morning.

I have now related about half of the more severe and interesting of the cases, and I shall be more than repaid if this letter will contribute any additional information on the subject of poisoning by jatropha nuts, and more especially if it should be fortunate enough to draw the attention of any one capable of dealing with the subject to the fact that it is one of the greatest desiderata in medicine that we should obtain an oil from the Euphorbiaceæ possessing all the so well known, admirable, and unequalled qualities of castor oil without the disadvantages of its taste, odour, and bulk.

GENERAL CORRESPONDENCE.

THE ALTERATION IN THE PAY OF THE INDIAN ARMY MEDICAL SERVICE.

[To the Editor of the Medical Times and Gazette.]

Sir,—I am very much afraid you have been rather premature in congratulating the Profession, in your last impression, upon the supposed advantageous provisions of the new scale of pay lately adopted for the Army Medical Service in India. If you carefully examine the same, it will be seen that an increase of pay is conceded to Surgeons-Major and Assistant-Surgeons, and that the Surgeons will be material and serious losers; in fact, the scheme has been so devised that the saving to the Indian Government finance by this curtailment of the pay of Surgeons will go a long distance, if it does not entirely cover the additional expense incidental to the increase of pay of the other grades! An ingenious way of carrying out that old, but not over-honest principle of "robbing Peter to pay Paul!" May I beg to be informed upon what principle of honesty or propriety is the pay of Surgeons to be thus reduced? What crime have they been guilty of deserving such curtailment?

Is it reputable in any government to resort to such discreditable shifts in thus treating the members of a liberal profession, whose services the State cannot dispense with, but whose prospects and interests it has always been the practice of narrow-minded officials, who watch with a most jealous care their own salaries, to repress and tamper with?

Will you kindly ventilate this important and vital subject?

London, June 13. I am, &c. An Indian Surgeon.

Royal Medical and Chirurgical Society. — An additional ordinary meeting of the Fellows of the Society will be held on Tuesday, July 5, at 8 p.m., to receive the report of the Scientific Committee on the uses and effects of chloroform.

The Levee.—At the levee, held by command of the Queen, by the Prince of Wales on Wednesday, June 22, the following members of the Medical Profession were presented:—Bird, Mr. Peter Hinckes, Assistant-Surgeon Volunteers, by Lieutenant-Colonel Wood. Bryson, Dr., R.N., on appointment as Director-General of the Medical Department by his Grace the Duke of Somerset, K.G. Christie, Surgeon Alexander, late Bengal Medical Service, by Major-General Christie. Down, Dr. Langdon, M.D., by the Right Hon. Earl Granville. Mason, Dr. Thomas E., by Lieutenant-Colonel Harcourt. Martin, Mr. William, by the Secretary of State for India. Reed, Assistant-Surgeon Baynes, 12th Regiment, by the Adjutant-General. Skey, Mr., President of the Royal College of Surgeons of England, by Lord de Tabley. Stern, Dr. Moritz, senior resident Medical Officer, Government Hospital, Jamaica, by the Right Hon. Edward Cardwell. Young, Dr. James, R.N., Her Majesty's ship *Racoon*, by Captain Count Gleichen. The following attended the levee: Sir Henry Holland, Physician in Ordinary to the Queen. Doctors.—Walter D. Jones, M'Sheehy, Hinxman, Acland, Michael Faraday, J. H. Paul, Breslin, Billing, and Ashley. Deputy-Inspector-General Graves, Mr. Propert, etc., etc.

OBITUARY.

PROFESSOR MILLER.

(*From our own Correspondent.*)

Edinburgh.

The Medical Profession in this country, and wherever the noble art of Surgery is practised and respected, will read with sorrow the announcement of the death of James Miller. One who for the long period of twenty-two years taught directly from a professor's chair, and through his writings indirectly, hundreds of young men, must have many professional children to lament his early death.

Professor Miller became ill on May 19, and died June 19. He had for several weeks complained of symptoms which he thought were caused by derangement of the liver or the heart, or both; he became much depressed, and had gloomy forebodings. His frame, apparently so stalwart, had already been tried by frequent serious illnesses, and at last he sank into stupor, the result of exhaustion. He was conscious for a few hours before death, and bade farewell to his family and servants. About a year ago he had ptosis of the left eye. A post-mortem investigation threw no light on the symptoms of his malady. He was only fifty-two years of age, and until the last few weeks he seemed to have every appearance of health.

Professor James Miller was the son of the late minister of Monikie, near Dundee. After receiving the usual home education, he went to St. Andrew's University, and thence to Edinburgh, where he resided for fifteen years a pupil of Liston. For five years before Liston went to London Miller assisted him in private practice, was introduced to his patients, and employed by most of them after the great Surgeon's departure.

In 1842 he succeeded Sir Charles Bell as Professor of Surgery in the University, and since then prospered as a teacher and practitioner. He possessed nearly every element of success, a fine position attained at thirty, a large connexion of friends, a handsome person and captivating manner, with "the ease, which marks security to please," and a great faculty for watching the progress of events, and "grasping the skirts of happy chance," till at last he became one of the most influential citizens of Edinburgh, and his name was familiar to every one, rich and poor, in Scotland.

At the disruption (the technical term for the secession of many members of the Presbyterian Church), Miller joined the party who call themselves the "Free Kirk," and has ever been its keen supporter. His fearless and ready eloquence will be sorely missed by that most militant of churches here on earth. But he was on good terms with all denominations, and although some may wonder at a Medical Practitioner becoming so prominent in purely church matters, the wonder must arise from ignorance of Scotland, especially Edinburgh, where appointments to public institutions, prosperity, and popularity in any vocation, are so largely influenced by the clergy and their lay officers. It is, therefore, only natural that a man of any ambition desires to be one of the most influential party. Of course Professor Miller's adherence to the Free Church was quite unselfish, and it gave him many opportunities for usefulness in public and private.

As a Practitioner he was greatly beloved by his patients, and though practising chiefly as a Physician, when a surgical case presented itself he readily undertook it. As a lithotomist his style greatly resembled Fergusson's, the long, shapely finger soon entering the bladder, and the forceps, with Listonian dexterity, rapidly removing the stone.

From time to time he published memoirs on Surgical subjects. His Text-book has gone through several editions, and the article, "Surgery," in the "Encyclopædia Britannica," has been much admired.

But of late years he devoted his pen more to social subjects, written in a peculiarly diffuse, but pleasant style, in which "apt alliteration's artful aid" was often called in to assist. He was fond of such titles as "Labour Lightened, not Lost." or, "Design in Disease." His favourite subject was abstinence from alcoholic stimulants, the evils of which he must have been deeply impressed with in early life, and he wrote and spoke eloquently against indulgence in them. His oratory was like his writing, diffuse but telling; he had a great flow of words, a great voice, and appropriate action. Constant practice enabled him to speak on any subject for any length of time. His lectures were full of anecdote, and very popular with the students. After he had served the usual length of

time as Surgeon to the Infirmary, the directors allowed him wards *ex officio* for the illustration of his lectures, a privilege his predecessors had not enjoyed. He was appointed lately Surgeon to the Chalmers Hospital, a beautiful little building opposite the Braid Hills, and was also Surgeon to the Sick Children's Hospital, a pretty little nursery where maiden ladies play at being mammas. He filled many other important positions, and no public meeting, especially with religious tendency, was complete without him.

Professor Miller was a Fellow of the Royal Society and most others, but seldom appeared at any of them, being in that respect no exception to the rule in Edinburgh.

His great charm was his geniality and kind manner. In this world where a stranger is too often entertained by a cold shoulder garnished by a few bows, such exceptional characteristics are not forgotten; and though it went very likely no further, Miller's hearty shake of the hand was quite exhilarating to the new-comer. It will be long, I trust, ere the citizens of Edinburgh for whom he worked so hard will forget his cheery voice, merry laugh, and earnest counsels, his handsome fearless face, with its sharply-cut features and lips ever trembling in a smile, his intellectual head, with the fair flowing locks brushed back off the forehead. Fifty-two years of this hard world seemed to have made but little impression on his strongly-built figure. On June 22 his colleagues, who have scarce had time to wipe away their tears for Ferrier, will lay him in the Grange Cemetery, commonly called the Saints' Rest, for there are buried many Scotch worthies, Chalmers, Agnew, Hugh Miller, and many others.

The name of James Miller may well be added to theirs: like them he led a good and useful life; why should we grudge his joining the great nations of the dead?

LEGAL INTELLIGENCE.

OLDBURY COUNTY COURT.

MANLEY *v.* HOOPER.

THIS was an action brought by Mr. John Manley, a Surgeon of West Bromwich, against Mr. Edwin Hooper, the Coroner for the southern division of the county of Stafford.

Mr. Fitter, solicitor, Birmingham, appeared for Mr. Manley; and Mr. Motteram, barrister, of the Oxford Circuit, for Mr. Hooper.

Mr. Fitter, in opening the case, said that the action was one of debt upon a statute, for the recovery of one guinea, being the fee claimed by Mr. Manley for attending an inquest, on the body of a woman of the name of Elizabeth Collins, in pursuance of a summons issued by the Coroner, and the case was of considerable importance to the Medical Profession, because it raised the question whether the Coroner by issuing a summons, instead of an order of a special kind as provided by the Act of Parliament governing such cases, could deprive a Medical witness of his fee of one guinea to which he would be entitled, *qua* a Medical witness, and remunerate him by payment of 2s. 6d., the remuneration allowed to non-Medical witnesses. Mr. Fitter called his Honour's attention to some of the facts attending the inquest on the body of the woman, the reports of which appeared in this paper in the month of February last, and pointed out that there was in the first instance an imputation of negligence by the Coroner against the plaintiff or his assistant, accompanied by strong personal observations, and that finally the defendant summoned the plaintiff to give evidence at the adjourned inquest. The plaintiff attended in pursuance of the summons, and demanded the statutory fee of one guinea, which defendant refused to pay, and tendered him 2s. 6d., which the plaintiff refused to receive. Mr. Fitter referred to the Acts of Parliament on the question at some length, and contended that on the proper construction of them the plaintiff was entitled to a guinea.

The plaintiff having deposed to the necessary facts in support of his case,

Mr. Motteram contended at some length that the plaintiff was summoned by the defendant as a non-Medical witness, and was only entitled to 2s. 6d., and examined the defendant as to the circumstances under which the plaintiff was summoned, and the nature of the evidence he gave on the occasion.

His Honour summed up at considerable length, observing in strong terms upon the fact the plaintiff was summoned either to explain away an alleged charge of negligence on his part or that of his assistant, for which there did not appear to be any foundation, or to give Medical testimony as to the cause of death. As to the former his Honour observed that the coroner had no jurisdiction to inquire into the mode adopted by him, and, for the credit of the coroner, he would take it that he summoned the plaintiff to give evidence as a Medical witness as to the cause of death, and he would in the latter case be entitled to his guinea. His Honour gave plaintiff a verdict for the amount claimed, with costs.—*Birmingham Daily Gazette.*

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a general meeting of the Fellows, held on Friday, June 17, the following gentlemen, having undergone the necessary Examination, and satisfied the College of their proficiency in the Science and Practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College:—

Josiah Court, Guy's Hospital; John Foot Churchill, Croydon; Robert Leamon Bowles, Folkestone; Charles St. John, 6, Foulis-terrace, Onslow-square; William Clunie Wise, M.D. St. Andrews, Plumstead; Frederick Charles Dodsworth, Turnham-green; George Frederick Cooper, Reading; and Charles Hammond, Southampton.

At the same meeting, the following gentlemen were reported by the Examiners to have passed the Primary Professional Examination:—

Thos. Cuddeford, St. Bartholomew's Hospital; James Taylor, Glasgow; and James Henry Worsley, Bury, Lancashire.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, June 16, 1864:—

Benjamin Jones, Llangefin, Anglesea; Charles Moss, St. Helens; Charles Franklin, Maida hill; Edmund Woods Hawkins, Commercial-road; Ebenezer Snell, Plymouth; Chauncy Puzey, Surrey-square, S.; Charles Edward Martin Shaw, York-street, Portman-square; Henry Dawson, Church-road, Islington.

The following gentlemen, also on the same day, passed their First Examination:—

Frederick Barham Nunnely, University College; Henry Weeks, Guy's Hospital; Richard B. Nowell, Guy's Hospital; George Christopher Tayler, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BUTCHER, HENRY O. F., M.R.C.S. Eng., has been appointed House-Surgeon to the Clayton Hospital and Wakefield General Dispensary.

HAWKEN, C. ST. AUBYN, M.R.C.S. Eng., has been appointed Resident House-Shrgeon to Westminster Hospital.

PEARSE, G. E. L., L.S.A., has been appointed Resident House-Physician to Westminster Hospital.

DEATHS.

BALY, GEORGE, M.R.C.S. Eng., Staff Assistant-Surgeon to H.M. Forces, at Warwick, on June 13, aged 34.

DAVIS, JOHN, M.D. Edin., Surgeon R.N., at 34, Wilson-street, Portland-square, Bristol, on June 17, aged 73.

DE RENZIS, Dr., Professor of Clinical Surgery at the University of Naples, and the Author of the most complete work on Surgery in the Italian language, died last month, having been seized with apoplexy while visiting a patient.

FREEMAN, T. D., Surgeon, formerly of Leigh, Worcestershire, on May 27, aged 69.

GLASCOTT, Dr. JOHN, at Constantinople, on June 2.

HILL, JAMES P., M.R.C.S. Eng., at the District Hospital, Daylesford, Victoria, Australia, on April 8, aged 34.

MACDOWALL, ALEXANDER A., M.D. Glasg., at Helensburgh, Dumbartonshire, on June 10.

MILLER, JAMES, F.R.C.S. Eng., of 29, Charlotte-square, Edinburgh, at Corstorphine, on June 17, aged 52.

PRANCE, J. CONNELL, M.R.C.S. Eng., at Richmond, late of Maidstone, on June 14, aged 76.

ST. BARTHOLOMEW'S HOSPITAL.—On the retirement of Mr. Skey from the office of Surgeon to the Hospital, in January last, a subscription list was opened for the purpose of presenting him with some token of the regard and esteem in which he is held by his friends and old pupils. The sum raised, which amounted to about £250, has been expended in the purchase of a handsome silver centre-piece and two candelabra, and these will be presented to Mr. Skey, in the great hall of the Hospital, on Thursday, the 30th instant, at 3 p.m.

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CONVERSAZIONE AT THE ROYAL COLLEGE OF PHYSICIANS.—The President and Fellows gave their annual evening entertainment at the College on Saturday, June 18. An unusual number of non-Professional and Professional guests attended, and a large collection of scientific novelties was exhibited for their amusement. The interest of the evening was also considerably heightened by the presence of their Royal Highnesses the Prince of Wales and Prince Louis of Hesse, who arrived punctually at the hour of invitation—9 o'clock—and remained until about 10. Their Royal Highnesses were conducted round the rooms by Dr. Watson, the President, and examined with evident interest and curiosity everything displayed, from Caxton's Recuyell of the Historyes of Troye, which it will be remembered was discovered accidentally a short time ago in the College Library, down to the new German harpoon for extracting muscular fibre from the human subject when in search of the *trichina spiralis*, exhibited by Dr. J. Ogle. Without giving a catalogue of the objects shown, we may notice the beautiful microscopic preparations of the liver, kidney, and medulla oblongata; and the exhibition of the circulation in the web of the frog's foot in a state of inflammation by Professor Lionel Beale; Dr. Thudichum's successful demonstration of living trichinæ in several stages of development, and of a new cysticercus from the sheep; and Mr. E. Hart's new ophthalmoscope, showing the deep structures of the eye-ball without the necessity of darkening the room. Dr. Ogle also exhibited, in addition to the above-mentioned harpoon, some exceedingly good photographs of the disease termed "Progressive Muscular Atrophy," and several other pathological specimens and drawings. He also contributed a specimen of the snake-stone from Ceylon, used by the natives to prevent the effects of the bites of poisonous snakes. He has found that a microscopical examination of this supposed stone proves it to be in reality bone. Amongst the visitors were Lord Chelmsford, Lord Wensleydale, Lord Belper, the Lords Justices Erle, Turner, Knight Bruce, the President of the Royal Society, the President of the College of Surgeons, and many other celebrities.

ROYAL COLLEGE OF SURGEONS.— The official circulars, giving the names of the eligible Fellows who are candidates for seats in the Council at the ensuing election on the 7th proximo, have now been sent to all the electors, and the following analysis of the same may interest our readers. Mr. Thomas Turner, of Manchester, the senior of the new candidates, who offers himself as a provincial representative, is nominated entirely by provincial Fellows — viz., Messrs. Southam, Bates, Windsor, Mellor, Lund, and Boutflower, all distinguished townsmen of the candidate. Mr. Andrew Melville McWhinnie, of Serjeants' Inn, Temple, adopts the ingenious plan of obtaining three provincial and three metropolitan Fellows to nominate him—viz., Messrs. Green, of Bristol, Mayo, of Winchester, Dayman, of Southampton, Bishop, an ex-Member of the Council, Holden, of St. Bartholomew's, and Harrison, of Lambeth. The third and fourth candidates, Mr. Thomas Blizard Curling, of Grosvenor-street, and Mr. Frederick Le Gros Clark, of St. Tnomas's street, may be considered the representatives of the metropolitan Hospitals, as they are nominated, the former, by Mr. Paget, of St. Bartholomew's, Mr. Hewett, of St. George's, Mr. Erichsen, of the University, and Mr. Critchett (his colleague) of the London Hospitals, and two well-known provincial celebrities, Mr. Symonds, of Oxford, and Mr. Page, of Carlisle. Mr. Clarke is altogether supported by metropolitan Hospital Surgeons — viz., Mr. Simon, his colleague at St. Thomas's, Mr. Birkett, of Guy's, Mr. Coote, of St. Bartholomew's, Mr. Erichsen, of University College, Mr. Moore, of the Middlesex, and Mr. Carr Jackson, of the North London Hospitals. Messrs. Gulliver and Hancock, the retiring members of the Council, offer themselves for re-election, and altogether the contest will, it is said, be a very spirited affair.

A NEW PHARMACOPŒIA FOR INDIA.—The authorities at the India Office have, we learn, recently had under consideration the publication of a Pharmacopœia for India, to be issued under the supervision of a special committee of Indian Medical officers of experience. Such a work, if it embraces, as it should, the more valuable Medical products of the East, would be a great boon not only to the European portion of the Profession in India, but also, indeed, principally to the native students and graduates of the great Presidency Colleges, and to the Medical subordinates generally. Such a work is a desideratum, and we shall rejoice to see it carried out. We have heard the name of Assistant-Surgeon Edward J. Waring, of the Madras army, author of a "Manual of Practical Therapeutics," and other works on Materia Medica, mentioned as the probable editor. It could not be entrusted to better hands. We understand that the scheme has already been sent to India for the sanction and opinion of the Governor-General.

THE Birmingham people have an extraordinary liking for pigs, no matter how badly provided they are as regards the required space for a sty for that not very clean quadruped. If they have not got a sty, why then piggy is kindly taken in as one of the family, and has a happy time of it in the cellar. Sometimes, and I can assert it with truth, the pig has a sty erected in some out-of-the-way corner in the house. The working classes, too, have a fancy for rabbits, which they keep in the cellars, besides having two score of fowls in the same place. Sooner than lose their "pets" they will, no doubt unconsciously and labouring under erroneous impressions, have their children's health and that of others too sadly impaired from the abominable stench proceeding from a pig-sty, a rabbit pen, or fowl roost. Such a practice cannot be too strongly condemned, as both an abomination and a disgrace.—*Birmingham Paper.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. F. A. Bulley.—The paper has been received.

A Physician and Surgeon.—If you are not practising *bond fide* as a Physician, don't.

Amicus, Exeter.—The first number of this journal appeared on the 28th of September, 1839. A complete set is scarce. The Library of the College of Surgeons possesses one.

Mr. Wm. Prowse is, we believe, the originator of the Griffin Testimonial Fund. He will be happy to act as Treasurer and Secretary to the Fund for the provinces.

The letters of Professor Oswald Home Bell and "Beta" shall appear next week.

Rahere, Fowey, Cornwall.—To Abernethy is due the sole honour of establishing the Anatomical School of St. Bartholomew's. The first Hospital for sick persons was founded at Canterbury by Lanfranc, Archbishop of that diocese, in 1070. The office of Serjeant-Surgeon was instituted in 1461.

Hunter's Chair.—No; the chair, which also forms a library-ladder when extended, and which was made by the great physiologist, is in the Conservator's office at the College of Surgeons. The chairs to which our correspondent refers were sold by the College authorities some years since; the wood of which they were made was brought over by the great circumnavigator Cooke, and presented to Hunter. It has never been ascertained what the wood is. See the *Medical Times*, vol. xxv., p. 347, *et seq.*, "Old chairs to sell!" Inquire at the College of Surgeons.

A Fellow, F.R.C.S., Manchester, and others.—The 15th section of the Charter of the 7th of Victoria granted to the College is very clear on the subject. On reference to it our correspondents will find that the voting at elections of Members of the Council by the Fellows in person is not regulated by bye-laws, but is a provision of the Charter, which states "that the Members of the Council of the College shall hereafter be elected by the Fellows of the said College, including the Members of the Council as such; and such Fellows, whether Members of the Council or not, shall be allowed *to vote in person only, and not by proxy*," etc.

ALLEGED BREACH OF PROFESSIONAL ETIQUETTE—ACCIDENT ON THE GREENWICH RAILWAY.

*** At the moment of going to press we receive the following. As it has already become a public document, we give it a place in our columns; but it must be remembered that it is purely an *ex parte* statement; that every portion of it is susceptible of denial, or of explanation; and that till Mr. Adams's counter-statement be weighed in the balance, it would not be fair to consider him guilty of the breach of etiquette, or the bad manners, which the alleged transaction would involve. We do not conceal our dislike to any interference by railway Surgeons in money matters, compensation, etc. But here there is no allegation of the sort. Mr. Adams is accused of having done an act which in itself may be considered innocent or laudable in a way which may be called unmannerly. Let us wait and hear what he says.—ED.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I have sent a copy of the annexed letter to the body to which it is addressed, and I should feel very much obliged by its insertion in your next.

I am, &c.

Gray's-inn, June 22. J. JONES.

"*To the President and Members of the Council of the Royal College of Surgeons.*

"An accident happened on the Greenwich railway, on the 20th of May last, by which several persons were injured.

"In the evening of the following day Mr. John Adams, Surgeon to the company to which the railway belongs, called at the residence of a young gentleman in Greenwich, who had suffered on the occasion, and entered

into conversation with his mother; he gave no card, nor did he introduce himself either by name or profession: he affected ignorance of any accident having occurred, and on being told that the patient was upstairs in bed—without inquiring whether he was under Medical treatment, of which there were unmistakeable signs on the table—without even allowing the mother time to announce to her son the presence of a stranger—he entered the sick room, and proceeded forthwith to make an examination of the case.

"These are facts which I am instructed to bring before your notice, and I am sure you will feel yourselves compelled to inquire strictly into them.

"The matter concerns your body, of which Mr. Adams is a member; it concerns the whole of the Profession you represent very nearly; and it concerns society and the public no less.

"I have the honour to be, gentlemen,

"Your obedient Servant,

"J. Jones, Solicitor.

"12, South-square, Gray's-inn, 13th June, 1864."

The College of Surgeons' Schedule.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The schedule of certificates for the Pass Examination of the Royal College of Surgeons of England contains at the end a "declaration," to be signed by the candidate, to the effect "that the foregoing certificates are, in every respect, correct and true." Now, one of the said certificates is "that N. N. has attended the courses of lectures on clinical Surgery, and that each course consisted of not less than one lecture in each week."

In certain recognised Hospitals clinical lectures have not been delivered once in each week, but that is not the fault of the student, who can have no control over his teacher, yet the "declaration" on his schedule makes him answer for the required number being correct and true.

No other Examining Body requires such a "declaration," and I write to ask you, Sir, if it be not most unfair to ask us to sign it? Or if it be signed by the candidate in the sense that it is correct as far as he could make it so, then is it not untrue? and is there not reason for omitting it?

I am, &c. Truth.

[*** "Truth" should state his difficulty to the Surgeons of his Hospital, and obtain from them a special certificate, stating the number of clinical lectures given and attended.]

An Appeal from the Widow and Fatherless.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I shall feel obliged if you would kindly insert the following few lines in your widely circulated paper:—I am a widow of the late Edgar Bull, Surgeon, etc., of Blockley, Worcestershire, whose melancholy death was reported in the newspapers some few weeks since. I am left wholly destitute, and with a family of four children, three of whom are entirely dependent upon me for support. Having no means at my disposal to commence a small business in order to obtain a livelihood for them, which I am anxious to do, provided I could obtain some assistance, I have thus been induced to make this painful appeal to the members of the Medical Profession.

The Rev. H. Bromfield and Admiral Collier, of Blockley, have most kindly consented to receive any small donations which may be kindly forwarded for carring out the above benevolent object.

I am, &c.

Blockley, Worcestershire, June 20. Ellen Bull.

Conservative Surgery.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—On reading Professor Fergusson's lecture in the *Medical Times and Gazette* of the 18th instant, my attention was arrested by some remarks of his on conservative Surgery, from which the casual reader might infer that the practice was of comparatively recent origin, and unheard of in the world of letters prior to 1852.

I am sure that the learned professor has unwittingly omitted to give credit where credit is due, and with your permission I would fain fill up the gap in his lecture by stating that a retired member of the Profession, and an accomplished man of letters, practised conservative Surgery in one of our public Hospitals as early as 1843-4, with remarkable success; and that he published the result of his practice in the columns of the *Lancet*.

Sir James Prior, Deputy-Inspector-General of naval Hospitals and fleets, when in charge of the Royal Naval Hospital at Woolwich, if he did not invent, was the first to my knowledge to give prominence to the term "conservative Surgery," and I well remember one case of injury to an elbow-joint, which he treated successfully, although the dock-yard Surgeons who sent the man to the Hospital, and every other Surgeon who saw the case—your humble servant amongst the number—were of opinion that the arm ought to be amputated. Full twenty years have now elapsed since that case occurred, but it made an impression on my mind which time has not obliterated.

I am, &c.

June 20. A Staff-Surgeon, R.N.

I enclose my card.

Prescribers' Companions.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—You will, I am sure, allow me to trespass a little on your space in reply to the criticism of "The Prescriber's Companion" by Dr. Bree in your last issue.

First, I wish to thank him for not exhibiting any "captious spirit" in his remarks; I wish I could also thank him for accuracy in his quotations. I do not of course believe that he has wilfully misrepresented, but as his letter may, for a week at least, create an impression that "The Prescriber's Companion" is untrustworthy for the very purpose for which it was compiled, I think I have some right to complain that greater care was not taken to ensure correctness in the charges made.

Dr. Bree says that I have given the dose of Tinctura Lobeliæ and Vinum Tabaci, for an emetic as ʒj. to ʒiij.; whereas, if he will look more carefully, he will see it is ʒj. to ʒij. Then, again, he says that I have given the minimum dose of morphiæ hydrochlor. as gr. ½ for an adult, instead of which, as every one may see, it is gr. ¼.

Dr. Bree objects to the largeness of the doses given. In reply I have only to say that I was very careful in all cases where I was ignorant of the proper dose (and no one, I imagine, can suppose that I, or any one else, have experimentally tried all the medicines in the Pharmacopœia) to take such as were recommended by what I considered a competent authority. I hope Dr. Bree will allow that the work of Dr. Pereira is a safe guide on such a question; if so, if he refers to page 1551 of the third edition he will find that the dose of Tinct. Lobeliæ which is there given is "as an emetic ʒij. to ʒiij. repeated every two or three hours, till vomiting occur," and "for children of one or two years ɱx. to ɱxx." Again, at page 1435 of the same work the dose of Vinum Tabaci is ɱx. to ɱl. as a "sedative and diuretic." I do not think, therefore, that I was very far wrong in giving ʒj. to ʒij. as the dose for an emetic. With reference to Veratria, Pereira gives gr. ¼ to gr. ½ as a moderate medicinal dose three times a day, I therefore put the emetic dose at gr. ¼ to gr. 2. Then, as to the Tinctura Aconiti, Dr. Bree complains of my ordering ɱx. to ɱxv. Pereira says that the dose (of the old tincture) is five drops, and this dose I have given over and over again; the new tincture is just one-third the strength of the old, therefore, I ordered ɱx. to ɱxv. Lastly, with reference to the Ext. Cannab. Ind., the dose I have given is gr. 3 to gr. 8. I have reason to believe that this dose is too large, but in justification I must add that Dr. O'Shaughnessy, who made many observations on this subject, remarks that whereas in India he had seen marked effects from half a grain or even less, and had been accustomed to consider a grain and a-half a large dose, in England he had given ten or twelve, or even more grains to produce the desired effect.

I will not trespass on your space further than to add my thanks to Dr. Bree for his remarks on what he is pleased to call my "excellent little work," and to assure him that I shall be glad of as many more as he may care to make through you, or direct to me, all of which shall be carefully attended to "in a future edition."

I am, &c.

9, Cavendish-place, Cavendish-square. A. Meadows, M.D.

COMMUNICATIONS have been received from—

Mr. F. A. Bulley; Royal College of Physicians; Staff Surgeon R.N.; Mr. Richard McCormick; An Indian Surgeon: Mr Sylvester Richmond; Dr. P. H. Pye Smith; A Physician and Surgeon; Apothecaries' Hall; Mr. R. Griffin; Dr. Stallard; Dr. Alfred Meadows; Royal Medical and Chirurgical Society; Odontological Society; Mr. J. Jones; An Ex-Assistant Surgeon; Dr. W. Anderson; Dr. S. W. D. Williams; Beta; Dr. R. Dundas Thomson; Mr. Robert Oke Clark; Mr. McWhinnie; Mr. E. L. Hussey; Dr. Oswald H. Bell; Truth; Mr. W. Prowse.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 18, 1864.

BIRTHS.

Births of Boys, 912; Girls, 864; Total, 1776.
Average of 10 corresponding weeks, 1854-63, 1687·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	713	583	1296
Average of the ten years 1854-63	559·5	506·6	1066·1
Average corrected to increased population..	..	..	1173
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	462,388	..	1	7	1	4	9	1
North ..	618,210	4	11	4	2	5	17	3
Central ..	378,058	2	18	6	..	2	8	4
East ..	571,158	..	40	6	3	18	13	8
South ..	773,175	7	15	13	1	18	20	10
Total ..	2,803,989	13	85	36	7	47	67	26

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·670 in.
Mean temperature	57·8
Highest point of thermometer	74·1
Lowest point of thermometer	45·1
Mean dew-point temperature	49·0
General direction of wind	S.W.
Whole amount of rain in the week	0·23 in.

APPOINTMENTS FOR THE WEEK.

June 25. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

27. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

28. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Royal Medical and Chirurgical Society, 8½ p.m. Dr. Fenwick, "On the Condition of the Stomach and Intestines in Scarlatina." Dr. Wilson Fox, "On the Origin, Structure, and Development of Multilocular Cysts of the Ovary." Mr. Kingdon, "On the Causes of Hernia."

29. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.

30. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

July 1. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

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LIST OF ERRATA.

Page 27, column 2, line 5, *for* "Leith," *read* "Keith."
Page 155, column 2, line 35 from bottom, *for* "magnesia," *read* "magnesiæ;" line 19 from bottom, *for* "cow," *read* "cocoa."
Page 217, column 1, line 33, *for* "cinchonism," *read* "cinchona."
Page 268, column 2, line 35, *for* "Lacy," *read* "Loney."
Page 362, column 1, line 30 from bottom, *for* "those trichinæ," *read* "male trichinæ."

END OF VOLUME I. 1864.

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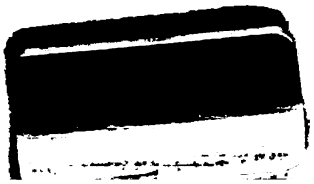

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